

# **SELF STUDY REPORT**

## **FEBRUARY 2023**



**BHASKARACHARYA COLLEGE OF APPLIED SCIENCES  
(UNIVERSITY OF DELHI)  
SECTOR-2, PHASE -1, DWARKA, NEW DELHI-110075**



**Submitted to  
National Assessment and Accreditation Council (NAAC)  
Bangalore**



# **SELF STUDY REPORT**

**FOR**

**2<sup>nd</sup> CYCLE OF ACCREDITATION**

**BHASKARACHARYA COLLEGE OF APPLIED SCIENCES**

**SECTOR-2, PHASE-I, DWARKA, NEW DELHI-110075, INDIA  
110075**

**<https://bcas.du.ac.in>**

**Submitted To**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**February 2023**

# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

*Whatever education a college or an Institute of higher education imparts, it must achieve the global level of benchmarking given the vast and diverse society we live in today.....*

-Narendra Modi

These words of wisdom of our Honourable Prime Minister describes the vision and mission of Bhaskaracharya College of Applied Sciences that envisages itself as a college of excellence in academics and research.

Bhaskaracharya College of Applied Sciences named after a great mathematician of 12th century was set up in October, 1995. The college is a constituent college of University of Delhi and is 100% funded by Government of National Territory of Delhi. The college was accredited with Grade “A” during the first cycle, in September 2017, by the National Assessment and Accreditation Council (NAAC). A dynamic IQAC, constituted in the year 2016, work towards realization of the goals of quality enhancement in a continuous process. It is a matter of pride that the college secured 25th position in the National Institute Ranking Framework (NIRF) 2022 Rankings instituted by Ministry of Education. The college has also been granted ‘Star Status’ by the Department of Biotechnology (DBT).

Within a short span of time, college has achieved remarkable recognition as one of the few colleges in Delhi offering eleven under-graduate programmes in science. Allied departments of the college are also offering specific courses of other programmes. The college has witnessed a consolidation of achievements during the last five years of the assessment period. Its consistent excellence in academics, sports and other co-curricular activities has laid emphasis on the overall development of students. This is also evident from the empowering impact of the education provided to the students. The rigor of high standards marks the conduct of its committed faculty and its efficient supportive staff. The infrastructure of the college ensures that young minds get nurtured in a stimulating environment. The college is proud to have its own Flag and established a college song. College has developed an indigenous IT application that manages all events and other administrative work of staff. This is a humble green initiative that college has undertaken.

### Vision

Since its inception, Bhaskaracharya College of Applied Sciences has been adhering to its specific Vision and Mission statements which clearly suggests its enabling role in the quality achievement, sustenance and improvement aspirations.

College envisions “**A commitment to mentor the students to achieve excellence through holistic education**” emphasizing inclusive and futuristic education in tune with the college motto, a Bhagwata Gita maxim ‘*Gyan Vigyan Sahitam*’, which literally means knowledge along with the comprehensive knowledge would help students in their overall learning process and foster global competencies among them.

College is an acknowledged pioneer in science education, known for its academic rigour and value-based education. Focus on industry linkages and service to the community/society has been the gold standards by

which the college is committed in its systems and processes. The college has incorporated skills required by the industry into the curriculum by including Skill- Based Subjects in all UG programmes.

The college encourages innovation and entrepreneurship among students through its 'Research, Project Assessment and Ethical Committee'. College is actively engaged in creating an ecosystem for innovations by inculcating entrepreneurial skills, imparting knowledge, opportunities for start-ups and creating awareness about Intellectual Property Rights among the faculties, researchers and students. The college has taken a lead role in integrating extension activities into the syllabus which requires every student enrolled in NSS to complete mandatorily dedicated hours of community service. Community engagement of students is ensured through extension activities and outreach programmes organised by NSS and other committees and clubs.

The college would continue to extend complete support to groom its dynamic faculty for teaching, research and innovation. The college is working on war footing to further strengthen the administrative acumen of the non-teaching staff whose role in the development of college is vital and indispensable. College immensely values its Alumni and ensure to enrich their association with alma mater. This helps in expanding the domain of collective contributions to the world.

## Mission

The mission of the college is to create and sustain the conditions that enable students to experience an unparalleled educational journey that is intellectually, socially, and personally transformative. College aims to support and promote both the academic as well as personal development of the learners. The diverse profiles of the learners are valued and encouraged through various academic and co-curricular activities. The college firmly believes in the transformative power of education. We strive to educate the young citizens and create citizen-leaders for the society, who will also contribute to the nation building. The college prepares its students for not only successful careers but also a fulfilling life.

Academic excellence is ensured through the curriculum that integrates industry requirements and expectations. Life-long learning is realized through technology enabled learning methodology, real-time projects and skill-based training. The underprivileged and disadvantaged sections of the society are helped through special programmes and processes. College strives to stimulate an academic environment for promotion of quality of teaching-learning and research. There is constant endeavour to undertake quality-related research studies and training programs.

## 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

### Institutional Strength

- College features within the top colleges of India with **NIRF-2022 ranking of 25**.
- College is a recipient of **Star College Status** by Department of Biotechnology, Government of India which has certainly helped increasing the college infrastructure.
- Unified purpose: Highly qualified, experienced and dedicated faculty along with the staff of college creates a healthy team to carry out various tasks of the college. The faculty are actively involved in a research projects, book and chapter writing, besides regular teaching.
- College takes pride in its state-of-art infrastructure for teaching, learning & research. In addition, excellent student support system, academic ambience and class-room climate creates a serene place for



academics to blossom.

- College follows student-centric teaching methodologies and society-centric outreach activities. College believes in building stronger Student-Teacher relationships through a structured Mentorship Program to increase student involvement in academics.
- Fairness and transparency in governance: Governance is decentralized giving maximum freedom at all levels. This brings in unprecedented fairness, transparency, as well as accountability.
- Automation and Digitisation committee has launched its two indigenously built mobile applications BRAHMA (BCAS Resource Automation, Handling and Management Application) and BEAMS (BCAS Event Automation & Management System). BRAHMA enables the college to manage various information resources generated in the college such as Student Data, Attendance, Internal Assessment, Time Table, Students Feedback, Budget etc. while BEAMS helps manage and automate various events related processes such as participants registration, communication, certificate generation, feedback etc., all paperless.
- Extensive Industry exposure: to the students through summer and winter internship programmes and industrial visits. Students are also made industry ready by giving them experiential learning through workshops, seminars, conferences besides sufficient hands-on during the practical classes.
- Extra care for special needs of differently abled people; tactile paths, ramp, reserved parking, reserved washrooms, Braille books and computer systems.
- Grants in aid are received from GoI such as the Ministry of Food Processing Industries, DBT, DST, UGC, BRNS, ICMR and CSIR for carrying out research, strengthening of infrastructure.
- Registered Alumni Association and a strong alumni network helps provide guidance to students for higher studies, internships, placements and organization of student related activities.

### **Institutional Weakness**

- Irregular funding for upgrading the infrastructure including IT, research facilities and repair and maintenance of instruments poses a primary hindrance to adequate growth of academia.
- Students face difficulty in accessing good quality paid journals due to fund shortage.
- Lack of residential campus is a roadblock for many students who aspire for admission in the college.
- Semester mode of University course structure hampers detailed and in-depth study of the curriculum.
- Appointments for recruiting permanent faculty positions in the college are a need.
- College endowments could be improved through more aggressive fund raising.
- Several courses are duly approved from University of Delhi to be introduced in the College. However, in the absence of approval from the funding authority they are pending for many years. This affects the academic growth of the college as well as concerned faculty.

### **Institutional Opportunity**

- Developing and introducing new and demanding courses: College has to be dynamic to the changing needs of the society by introducing newer courses which would benefit students by all means.
- College has developed an indigenous Data Management System. Further, efforts are underway to include all resources under one application for integrated data management.
- Provides experiential learning to students through projects, field-work and internships. Students are motivated to take up research and entrepreneurship through Star College Scheme and Technology Based Incubators-like initiatives taken by the government.
- College understands the significance of collaboration between industry and academia and has signed

MoUs with renowned institutions such as Kansas State University, Yeungnam University, IIT Delhi, National Institute of Immunology, Shri Ram Institute for Industrial Research, Lakshya and Vision Divyang Foundation, Foundation of Innovative Packaging and Sustainability, JK Polymer Industries, etc.

- College believes in holistic development of students and thus imparts value-based education to inculcate life skills, human values, professional ethics and environment sustainability. Plans to continue its efforts in extending the Vidya Vistaar Scheme with an objective to reach-out. Societal responsibilities are performed by carrying out other outreach programs.
- A holistic and multidisciplinary course content offered by NEP 2020 is a welcome change in our curriculum structure that should create more opportunities for employment of our students.
- College promotes self-employability through various training programs and short-term courses.
- College conducts valuable talks on a frequent basis by eminent professionals. We also have provision for engaging experts from foreign institutions. These provide exposure to students and an opportunity to network which is an essential step in their career trajectory.
- College is striving towards exploration of multiple avenues of renewable energy sources. Solar panels have been recently installed in the college and a centralized hybrid Solar street lighting system is also established. In addition, a portable Bio gas plant and Bio toilets are available on campus.
- As per NEP's multilingualism policy, Hindi language is promoted in college. The department organizes programs to promote our Rajbhasha. Celebrations such as Hindi Diwas Pakhwada and Antarrashtriya Matribhasha Diwas are organized.

### **Institutional Challenge**

- The number of students enrolled at Bhaskaracharya College of Applied Sciences has increased due to the reservation under OBC and EWS categories. However, it is not supported by the corresponding rise in the sanctioned post of faculty. Thus, this has created a challenge for the teachers to match teaching standards.
- Though the college has been facing a shortage of funds, it strives to create alternate sources of funds and avert the limitation. Grants for research work are also limited.
- Due to the implementation of NEP 2020, it is imperative to improvise the infrastructure and resources in order to meet the requirements of the syllabus.
- Despite students coming from different places in India and overseas, the college has no hostel facility within the campus. For this reason, the students have to take PG accommodation or stay with the local guardians. The institution is unable to expand physical infrastructure on account of regulatory constraints.
- The college is in the process of improving the speed of the internet so as to match the exponential needs of the college.
- Introduction of postgraduate courses in order to offer continuity in industry and research for the much-coveted and job-oriented programs like B. Sc. (H) Polymer Sciences, B. Sc. (H) Instrumentation, and B. Sc. (H) Food Technology. etc.

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

Curriculum planning and its implementation as per the guidelines of University of Delhi, forms the very

foundation of teaching, learning and allied activities at Bhaskaracharya College of Applied Sciences. The college currently offers eleven undergraduate Honours Programmes in science which are based on Learning Outcome Based Curriculum Framework (LOCF) and are aligned with Choice Based Credit System (CBCS) of University of Delhi. The curriculum of all the programmes have been modified recently to the four year Undergraduate Curriculum Framework (UGCF) by University of Delhi and are in line with the objective and underlying philosophy of the National Education Policy (NEP) 2020.

College has developed a mobile application “BRAHMA” which lies at the heart of curriculum delivery as it maintains real-time records of attendance, time-table, continuous internal assessment, mentorship, etc. The college also organizes curriculum enrichment activities like workshops, conferences, short term courses, etc. Registrations, feedback analysis and certificate generation for these activities is carried out by “BEAMS”, an in-house app integrated in the BRAHMA application, available to all students and faculty members of the college.

The faculty of the college employs a blended teaching-learning method by incorporating relevant IT-enabled tools in daily teaching tasks. Students are also benefited by the expertise of specialist faculty from foreign institutions. Several college faculty are extensively involved in various academic activities of the University including curriculum development and revision, Board of Studies and Academic council.

College conducts various short-term courses for students on a regular basis and encourage student participation in SWAYAM-NPTEL courses. These programs enrich the understanding of the subject and upgrade skills of the participants. To further strengthen the vision of holistic education, the college organizes various seminars, workshops, and outreach programs aimed at integrating emerging issues in curriculum to instill human values, professional ethics, spirit of inclusiveness, and to develop a deep sense of appreciation towards environment among the students.

An elaborate feedback system is in place to conduct a periodic self-evaluation. Students and stakeholders submit valuable feedback through BRAHMA application which is carefully analyzed and relevant issues are further addressed by the IQAC and Principal of the college.



# Curricular Aspects

## SUMMARY



### Curricular Planning & Implementation

Curriculum Planning & implementation at University and College level

Regular Assessment, monitoring and moderation

Foundation of teaching, learning and allied activities



### Academic Flexibility

Short Term/Certificate organized for upskilling

NPTEL courses organized for self-learning and flexibility

Focus on knowledge expansion and upskilling



### Curriculum Enrichment

Integration of Cross-cutting issues via curricular and co-curricular activities

Experiential Learning via field work, Projects and Internships

Vision of holistic development of students



### Feedback System

Transparent and Elaborate feedback collection system

Collection of feedback from all stakeholders

Vital for self-evaluation and continuous improvement

## Teaching-learning and Evaluation

Faculty of the college ignites passion, generates curiosity and motivates students to excel. Teaching- learning and evaluation processes involve following key aspects:

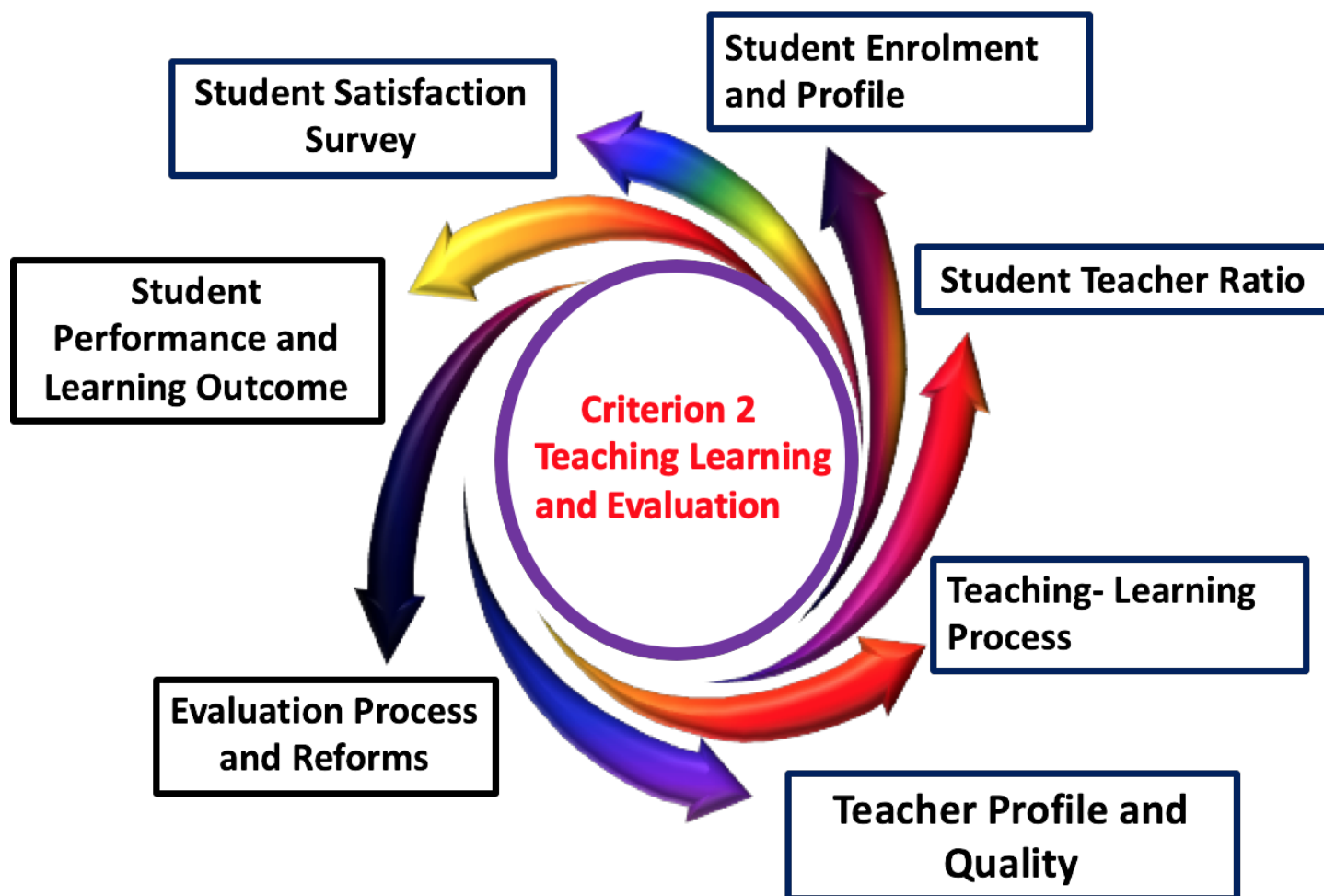
Catering Student Diversity includes efforts of the college to cater to the needs of economically weak, socially backward and differently-abled students. The college strictly adheres to the Government of India reservation policy during admission process. The college provides necessary fee concession to the students hailing from economically weaker section.

Teaching-Learning Process pertains to the efforts of the college for enhancing the quality of curriculum delivery. The college strictly adheres to the academic calendar of University of Delhi and the college for effective implementation of the syllabus, Continuous Internal Assessment and timely conduct of examinations. Students are apprised of the objectives and expected outcomes of their programme during the compulsory orientation programs. Various workshops, seminars, symposia are held to enhance knowledge and holistic development of the students. College also organizes remedial classes for slow learners so as to bridge the knowledge gap. Workshops are organized to prepare students for competitive examinations. ICT tools are regularly employed by faculty to enhance teaching and learning experience. The library of the college is well equipped in terms of books and journals.

Teacher Quality is defined by the steps taken for faculty development. The college regularly organizes Faculty Development Programs, seminars and workshops on advanced topics to help faculty enrich and upgrade their knowledge. The college also encourages and recommends teachers to participate in various orientation, refresher and winter courses.

Evaluation Process and Reforms; Student Performance and Learning Outcomes, include the mechanisms employed for assessing the performance of the students *vis-à-vis* learning outcomes. The performance is evaluated by the marks obtained during internal assessment, external examination and practical examinations conducted as per University of Delhi norms. There are provisions to redress students' grievances at various levels. IQAC monitors all the curricular, co-curricular and extra-curricular activities in the college and ensures necessary support to teachers and students for continuous betterment of teaching and learning process.





### Research, Innovations and Extension

The college has a robust system for conducting research within the college campus as well as in collaboration with different institutes. The college encourages its faculty and students to pursue research in their interested domain, and to submit research proposals. Several faculties have received grants from different government and non-governmental agencies. A number of faculties are also recognized as guides for Ph.D supervision.

The college has created an innovation ecosystem for active interaction amongst faculty, students, researchers and industries through various seminars, workshops and training programmes. Departments of the college are also well equipped with laboratories with several research and instrumentation facilities for smooth conduct of research works within the college premises. A highlight of such program is a recent patent granted on “*Coating Compositions and Methods for Preparation Thereof*”.

Several departments and committee of the college organize seminars and workshops on timely basis, to inculcate scientific and research temperament to the students and faculties. The college organize workshops and training programmes with a focus on entrepreneurship, intellectual property and skill enhancement, to create opportunities, solve problems and contribute to the society.

A number of faculties have published their research papers in reputed national and international journals of

good repute and high impact factors. The college have more than 150 research articles in UGC approved national and international journals during last five years. Additionally, faculties also have several articles published in peer-reviewed journals and more than 100 chapters in edited books.

The college is actively involved in outreach and extension activities to help society and create awareness in the youth. The NSS unit, Women Development Cell and Eco Club are in the forefront through which college provides a platform for service to the neighborhood communities and society. Besides organizing several outreach, extension, environmental awareness programs, the college has also adopted a village and a school in nearby locality.

The college is engaged in several collaborations with different institutions for purposes of research, internships, trainings, field trips and other academic activities. Several MoUs have been signed with industries, educational and research institutions for purposes of research collaboration, trainings, internships, etc.

# CRITERION 3

## Research, Innovations and Extension

### Key Indicator 3.1

#### Resource Mobilization for Research

### Key Indicator 3.2

#### Innovation Ecosystem

### Key Indicator 3.3

#### Research Publication and Awards

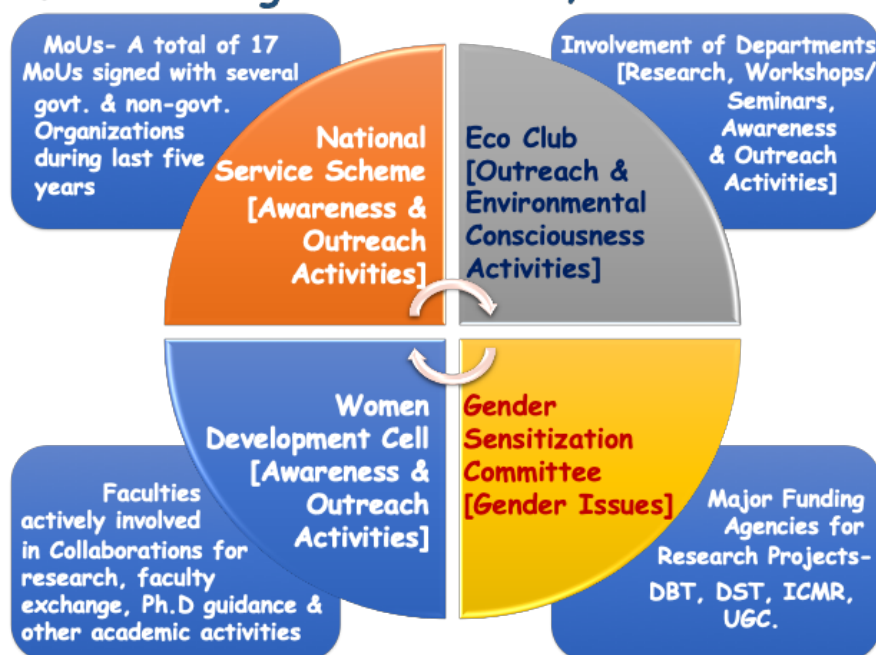
### Key Indicator 3.4

#### Extension Activities

### Key Indicators 3.5

#### Collaboration

## Involvement of the College in Research, Innovations and Extension



## Infrastructure and Learning Resources

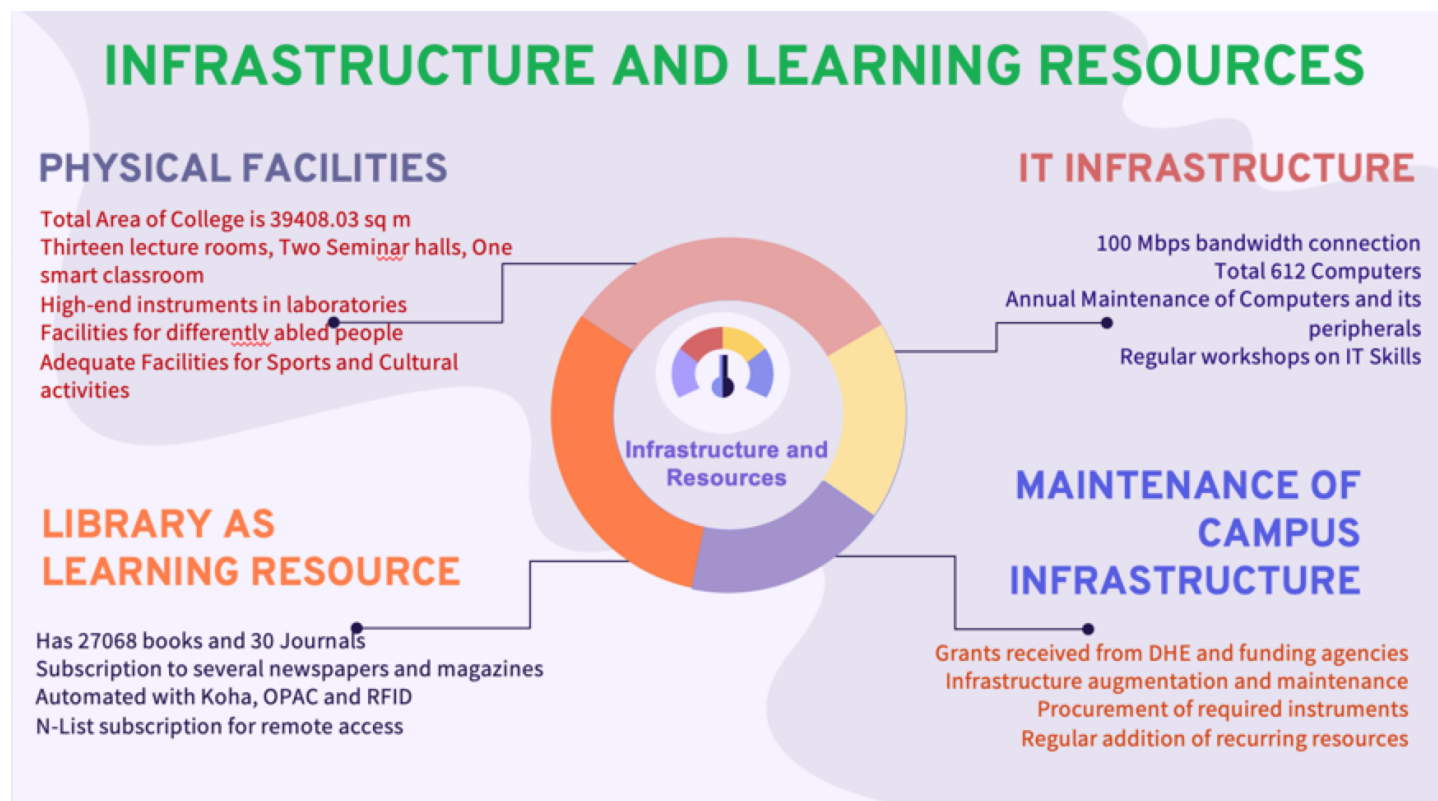
Bhaskaracharya College of Applied Sciences has a lush green campus with total area of 39408.03 square metres. The three-storey building features multiple departments, seminar rooms, lecture theatres and a well-equipped library that enables effective teaching-learning. The department laboratories are equipped with high-end instruments used for both curriculum practical as well as research purposes. The college has provision for

clean and safe drinking water, healthy and tasty food at canteen, and sanitizers for hand hygiene. Apart from these, there is an in-house facility for photocopying and purchase of stationery items. The college features tactile walkways, ramps, dedicated parking, reserved washrooms and Braille systems for differently abled people. There are also residential accommodations for non-teaching employees within the college premises. In addition, college has adequate infrastructure for sports and extra-curricular activities.

The college library comprises 27,068 books, 30 journals and is updated to fulfil the pedagogical needs of the evolving curriculum. The library also has several reference textbooks, bound volumes of print journals and subscribes to newspapers, magazines. The library is automated with Koha software and contains an effective OPAC module to provide specific details of books. The library is partially automated with RFID system which runs on Koha-ILMS. Subscription to N-LIST and provides students with remote access to a broad spectrum of e-resources.

The college has 100 Mbps bandwidth connection to ensure smooth functioning of academic and administrative functions. The college has provision of 612 computers (laptops and desktops), 69 printers/scanners, 38 projectors, 121 UPS, 2 HUBs (16 ports each), 2 barcode reader/scanners and 1 RFID reader. A total of 594 laptops/desktops are available exclusively for use by students. Annual maintenance contract of computers and its peripherals is a regular feature for maintenance of IT equipments. Stakeholders are benefited by regular workshops on IT skills.

The college receives grants from Directorate of Higher Education, Government of NCT Delhi for augmentation and maintenance of infrastructure (including IT items), salary disbursement, and various recurring expenses. In addition, funds from various research grants have also been used to procure instruments during the last five years.



## Student Support and Progression

Students being the main stakeholders of the Institution and torch-bearers of the society, the college envisages to mentor the students to achieve excellence in all spheres of life. Students are guided to enhance their skills sets and knowledge-base facilitating them in their academic and non-academic pursuits.

The college conducts various programmes to assist students in their future endeavours. A noteworthy initiative of the college is Student Counselling and Mentoring Programme which aims to provide direct guidance from a teacher (mentor) to a student (mentee). Though many students proceed for higher education, some may opt for placements after graduation. The students are encouraged to participate in the placement drives conducted by Training, Placement and Entrepreneurship Cell of the college and Central Placement Cell of University of Delhi on a regular basis. Also, some students prefer to prepare for various competitive examinations, join family business or become entrepreneurs.

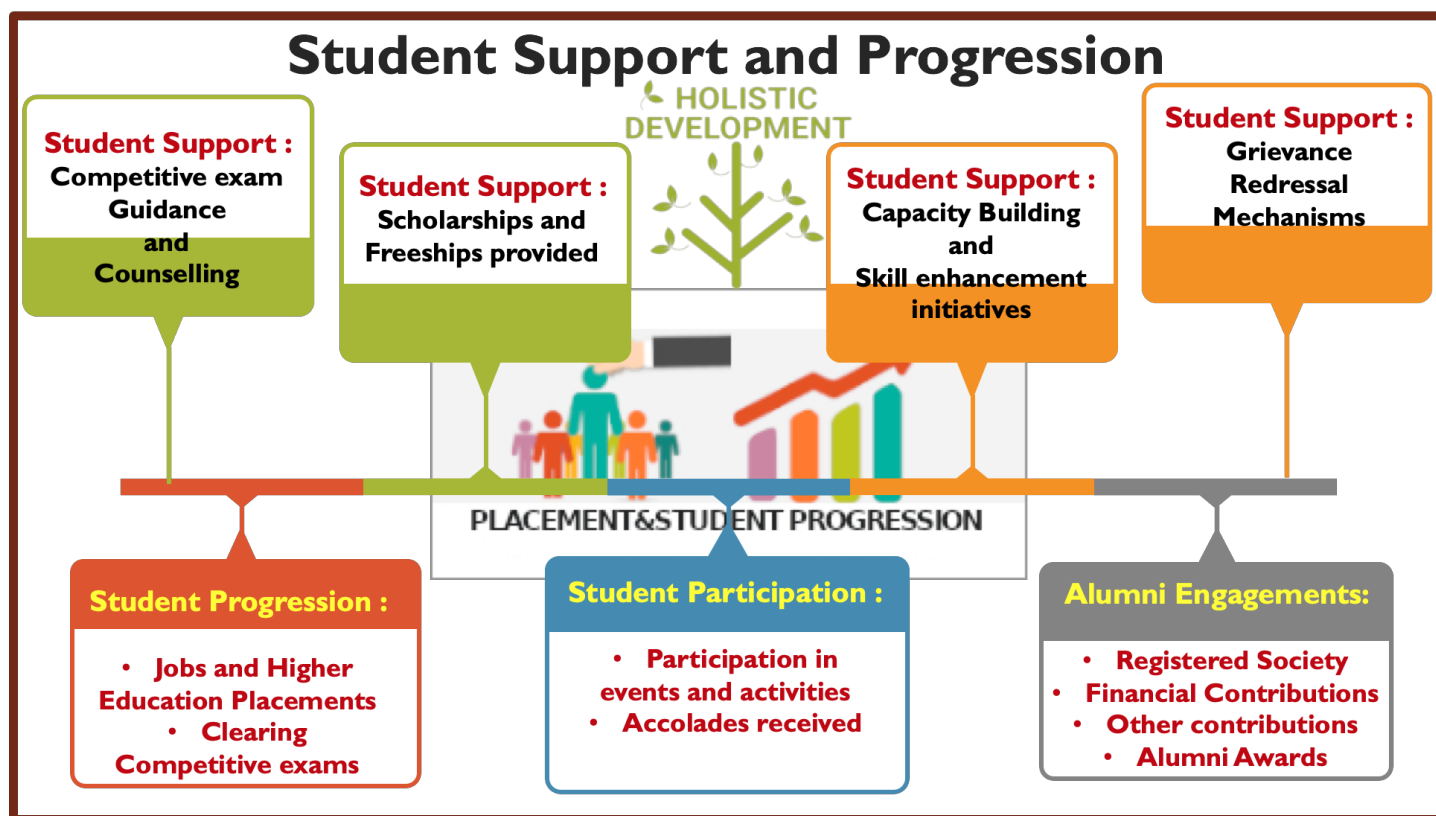
The college provides financial support to the students in the form of fee concessions under categories such as low-income grade, college ward quota and PwD. In 2021-22, the college has taken a humanitarian view in financially supporting the students who lost their parent during COVID pandemic. In addition to these initiatives, students are regularly informed and facilitated for applying to various government and non-government scholarships.

The students are encouraged to participate and volunteer in various co-curricular and extra-curricular events organized by the college and other institutes. Many students have brought accolades to the college by receiving awards in these events.

A significant aspect of student support is redressal of their grievances. The college has various committees such as ICC, Proctorial and Anti-ragging, Anti-discrimatory cell, Student Advisory and PR committee, etc. that provide a platform for students to submit their grievances and facilitate their timely redressal.

The college continues to support and interact with its students even after graduation. The registered Alumni Society and the Alumni Committee of the college work constantly to strengthen ties with the alumni by organizing alumni meets and other interactive events. The alumni often support the college by contributing financially or non-financially.





## Governance, Leadership and Management

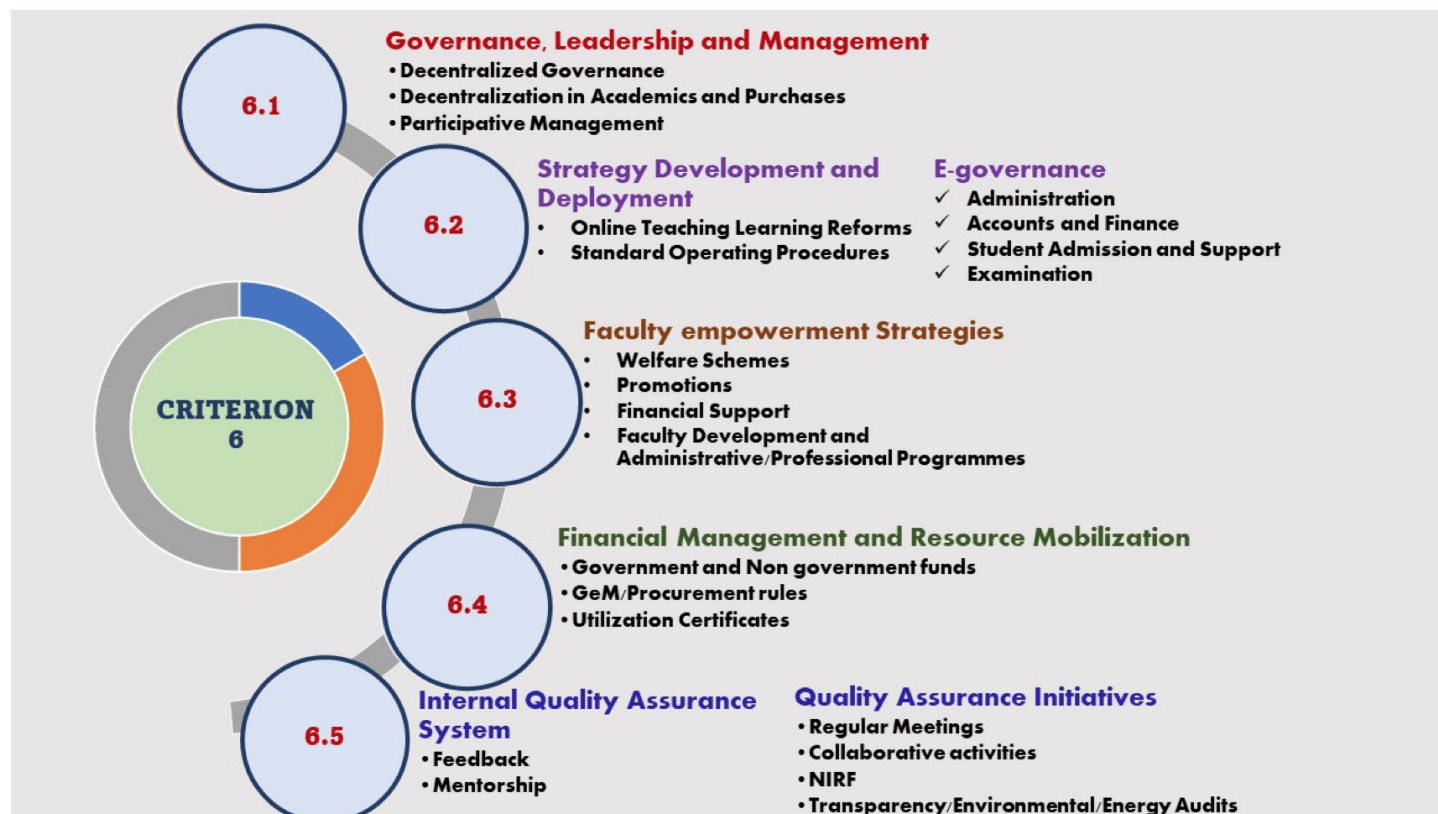
The college is a constituent college of the University of Delhi and is funded 100% by the GNCT, Delhi. All the policies and service rules provided by the University of Delhi are followed by the college. The college exercises a process-oriented mechanism for delegating authority and providing operational autonomy to all the functionaries of the college to steer towards decentralized governance. All college matters are managed as per the guidelines of the University of Delhi as well as the DHE, GNCT. Formulation and consolidation of action plans for all operations are carried out by the principal through various staff council committees. The principal, along with the vice-principal and bursar ensures that all policies and decisions are implemented through participative management and strategizes perspective plans accordingly.

In line with the vision of the college, teaching & learning reforms were drafted with the aim of digitization and automation of academic & administrative processes. In 2016, the college migrated from manual recordkeeping to digital. The Automation and Digitization Committee created an indigenous MIS for all academic and administrative work under BCAS Resource Automation Handling and Management Committee (BRAHMA). Similarly, all curricular/co-curricular/extra-curricular activities can be organised through BCAS Event Automation and Management System (BEAMS).

For efficient utilization of funds to procure goods/services, the Central Purchase Committee follows the General Financial Rules. All purchases are done through Government e-Marketplace. To ensure transparency, the college follows a three-tier auditing system. An internal audit is followed by an external audit by Examiner Local Fund Accounts, GNCT of Delhi and then by Controller and Auditor General of India.

The IQAC of the college plays a key role in assessing and ensuring the quality of the teaching-learning and

evaluation process. There are several initiatives undertaken by IQAC, two mentioned here are, mentoring and counselling system and a feedback mechanism. The college participated in accreditations/ranking of NAAC and NIRF. Also, various quality audits such as transparency, environmental and energy audits etc. are regularly carried out. Such initiatives as well as collaborative activities function as the catalyst for the upgradation of teaching-learning processes, and capacity building and enrichment of the stakeholders.



## Institutional Values and Best Practices

The college promotes gender equity on campus and ensures respect of all genders. Various committees are constituted to work towards the objective. A safe and secure environment is provided with CCTV cameras, restricted entry and lady guard in campus. Common room for girls, sanitary pad vending machines are available. Self-defence workshops, programs on gender equity and well-being are regularly conducted.

Education and environment friendly practices combine to promote a sustainable and eco-friendly culture in campus. Two-pronged approach of using alternate energy/power sources and conserving electricity/power is followed. Institution has solar lights, solar panels, biogas plant, LED lights, sensor-based lights and power efficient equipment. The college building is well ventilated and illuminated, thereby decreasing the demand of power. Paper Recycling, bio-composting, vermicomposting and e-waste collection are some waste management strategies. The college has agreement with an authorized vendor for disposal of biomedical waste and MoU for awareness activities related to environment including waste management. The college has a functional rain water harvesting system, lush green campus, herbal garden and functional nursery for raising saplings and plants. Tree census is conducted for documenting variety of trees in campus and Green, Environment, Energy audits are undertaken.

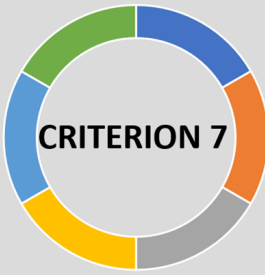
The college ensures a barrier free environment for PwD through ramps, human assistance, wheelchair, web accessibility, parking facility, tactile path, appropriate signages and accessible toilets. Reservation in

admissions and appointments as per guidelines, fee concession to students, collaboration with two colleges of Arunachal Pradesh , patriotic songs on college website in various Indian languages and a regional section in college magazine further depict inclusivity in campus.

The committees, clubs, cells and departments of the college regularly organise activities and programs on gender equity, environment issues, social responsibilities, commemorative days, linguistic diversity, constitutional rights and values to name a few.

The two Best Practices of the institution are **Nurturing undergraduate students to achieve their futuristic goals** and **SEVA: Societal and Environmental Value Additions**.

The institutional distinctiveness is **I2BB: Integrated College Management System to BRAHMA and BEAMS**, the in-house built and free of cost applications for digitization and automation of college processes.

<p><b>7.1.1</b></p> <p><b>Gender Equity</b> Restricted Entry, Lady Guard, CCTV, Washroom and Hygiene facilities, Self Defence Programs, Resolving Grievances, Gender Equity Promotion Programs.</p> <p><b>Celebration of Commemorative Days, Events and Festivals</b> Republic Day, Independence Day, Rashtriya Ekta Diwas, World Ozone Day, Diwali Celebration etc.</p>	<p><b>7.1.2</b></p> <p><b>Alternative Sources of Energy and Energy Conservation Measures</b> Solar Panels, Solar Lights, Biogas Plant, LED Lights, Power Efficient Equipments</p> <p><b>Degradable and Nondegradable Waste</b> Composting/Vermicomposting, Paper Recycling, E-Waste Collection, Proper Disposal of Chemical Waste, MoUs for Waste Disposal.</p> <p><b>Water Conservation</b> Rain Harvesting System/Tanks, Optimization of Water Usage, Pond revival Activity, Awareness Programs</p> <p><b>Green Campus Initiatives</b> Lush Green Campus, Herbal Garden, Nursery</p> <p><b>Disabled – friendly Barrier Free Environment</b> Human Assistance, Ramps, Wheel Chair, Web Accessibility, Parking Facility, Tactile Path, Signages, Accessible Toilets</p>
<p><b>7.1.3</b></p> <p><b>Audits</b> Green, Environment, Energy Audits</p> <p><b>Clean and Green Campus</b> Swachhta Drives, Herbal Garden, Plantation Drives, Tree census, Vermicomposting.</p> <p><b>Beyond campus Activities</b> Air Pollution Mitigation Walk, Amrit Sarovar Punarjeevan (Pond Revival) Awareness Campaign on Single Use Plastics, Adoption of School.</p>	<div data-bbox="544 1144 906 1462">  <p><b>CRITERION 7</b></p> </div> <p><b>7.1.4</b></p> <p><b>Inclusive Environment and Constitutional Obligations</b> Inclusivity in students' admissions and Staff appointments Fee Concession to Students Awareness Programs by North-East Cell Vidya Vistar Scheme Voter Awareness Initiatives Constitution Day, Vigilance Awareness Week etc.</p>
<p><b>7.2</b></p> <p><b>Best Practices</b></p> <p><b>Nurturing undergraduate students to achieve their futuristic goals</b> Nurturing and inculcating Academic Talent, Well-being and Life Skills, Social Competency and Leadership Qualities.</p> <p><b>SEVA: Societal and Environmental Value Additions</b> NSS and other initiatives, Nutrition and Health-related Initiatives, Outreach Activities by Eco Club etc.</p>	<p><b>7.3</b></p> <p><b>Institutional Distinctiveness</b></p> <p><b>I2BB: Integrated College Management to BRAHMA and BEAMS</b> <b>BRAHMA:</b> BCAS Resource Automation, Handling and Management Application <b>BEAMS:</b> BCAS Event Automation and Management System The in-house built and free of cost applications for digitization and automation of college processes</p>

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	BHASKARACHARYA COLLEGE OF APPLIED SCIENCES
Address	SECTOR-2, PHASE-I, DWARKA, NEW DELHI-110075, INDIA
City	New Delhi
State	Delhi
Pin	110075
Website	<a href="https://bcas.du.ac.in">https://bcas.du.ac.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Avneesh Mittal	011-25087597	9540758800	-	bhaskaracharya.college@gmail.com
IQAC / CIQA coordinator	Eram S Rao	011-41522219	9818881588	-	iqac.ugc.bcas@gmail.com

Status of the Institution	
Institution Status	Government , Grant-in-aid and Constituent

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details

State	University name	Document
Delhi	University of Delhi	<a href="#">View Document</a>

**Details of UGC recognition**

Under Section	Date	View Document
2f of UGC	15-07-1998	<a href="#">View Document</a>
12B of UGC	15-07-1998	<a href="#">View Document</a>

**Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)**

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
No contents				

**Recognitions**

Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

**Location and Area of Campus**

Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	SECTOR-2, PHASE-I, DWARKA, NEW DELHI-110075, INDIA	Urban	9.7	10767.34

**2.2 ACADEMIC INFORMATION**



<b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b>						
<b>Programme Level</b>	<b>Name of Programme/Course</b>	<b>Duration in Months</b>	<b>Entry Qualification</b>	<b>Medium of Instruction</b>	<b>Sanctioned Strength</b>	<b>No.of Students Admitted</b>
UG	BSc,Electronics	48	Class XII	English	59	39
UG	BSc,Food Technology	48	Class XII	English	59	58
UG	BSc,Instrumentation	48	Class XII	English	59	32
UG	BSc,Computer Science	48	Class XII	English	59	62
UG	BSc,Biomedical Science	48	Class XII	English	59	61
UG	BSc,Polymer Science	48	Class XII	English	59	29
UG	BSc,Microbiology	48	Class XII	English	40	42
UG	BSc,Physics	48	Class XII	English	40	31
UG	BSc,Botany	48	Class XII	English	40	33
UG	BSc,Chemistry	48	Class XII	English	40	25
UG	BSc,Zoology	48	Class XII	English	40	34

**Position Details of Faculty & Staff in the College**

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				91			
Recruited	0	0	0	0	0	0	0	0	18	25	0	43
Yet to Recruit	0				0				48			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				47
Recruited	12	6	0	18
Yet to Recruit				29
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				100
Recruited	26	1	0	27
Yet to Recruit				73
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

### Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	1	1	0	0	0	0	0	0	0	2
Ph.D.	6	3	0	6	19	0	3	1	0	38
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	1	0	0	2	0	3
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	16	21	0	37
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	3	5	0	8
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
	3	2	0	5

**Provide the Following Details of Students Enrolled in the College During the Current Academic Year**

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	347	500	0	7	854
	Female	219	219	0	1	439
	Others	0	0	0	0	0

**Provide the Following Details of Students admitted to the College During the last four Academic Years**

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	50	63	58	54
	Female	24	22	22	24
	Others	0	0	0	0
ST	Male	7	5	12	7
	Female	8	7	5	4
	Others	0	0	0	0
OBC	Male	112	94	84	124
	Female	29	28	30	57
	Others	0	0	0	0
General	Male	142	130	132	125
	Female	85	59	75	75
	Others	0	0	0	0
Others	Male	13	36	24	56
	Female	10	12	9	19
	Others	0	0	0	0
Total		480	456	451	545

**Institutional preparedness for NEP**

1. Multidisciplinary/interdisciplinary:	The college has developed a structured and effective mechanism for delivering holistic and multidisciplinary education to students. Adhering to the UGCF-2022 syllabus, the college is offering a
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	<p>large number of General Elective (GE) courses, Value Added Courses (VAC), Skill Enhancement Courses (SEC), Discipline Specific Elective courses (DSE) and Ability Enhancement Courses (AEC) besides providing undergraduate honours programmes in pure and applied for sciences courses. In addition to regular B.Sc. (Hons) programmes, the college regularly organizes short-term courses, workshops, seminars and webinars on various issues for promoting entrepreneurial skills, social inclusiveness and awareness for society's most pressing issues and challenges. Students are encouraged to participate in minor/major research projects and internships during their studies. Lectures, speaker sessions and workshops by eminent personalities from academics, the corporate sector, policymaking bodies and media are held regularly to enhance the curriculum to a more application-oriented framework. The college utilizes the facility of an indigenously developed Google-based application developed by the Automation and Digitalization Committee for effective implementation of the curriculum and documentation of other administrative procedures.</p>
2. Academic bank of credits (ABC):	<p>Academic Bank of Credits (ABC) will be operational from the academic year 2022-23. The UGC has instituted a National Academic Depository (NAD) which is a 24X7 online repository of all academic awards viz. certificates, diplomas, degrees, mark sheets etc. duly digitized and lodged by all academic institutions. Central universities such as the University of Delhi of which BCAS is a constituent college will soon adopt the same. The college has the required necessary prerequisites for providing technical support to monitor ABC.</p>
3. Skill development:	<p>To strengthen the skill development and vocational education of the students in alignment with National Skills Qualifications Framework (NSQF), the college has taken several initiatives. The UGCF curriculum takes account of skill enhancement courses offered by all the departments for strengthening practical aspects of the subjects. Various Skill Enhancement Course (SEC) papers such as "Developing Sustainability Plans for a Business", "Sustainable Ecotourism and Entrepreneurship", "Prospecting e-Waste for Sustainability", "CyberSphere and Security - Global Concern", "Analytics/Computing</p>

	<p>with Python”, and Basic IT tools have been introduced in NEP. To encourage academic-industry interaction, experts from diverse skill sets are invited as resource persons for short-term courses/certificate courses/seminars/workshops to impart knowledge and training, both in offline and online mode. Several MoUs have been signed with other institutes/organizations/industries such as Catholice College, Ms J. K. Polymer Industries, National Institute of Immunology and the Foundation of Innovative Packaging and Sustainability for enhanced learning to the students. Students are encouraged to take up research and entrepreneurship through Star College Scheme, BioNEST and Technology based Incubators-like initiatives taken by the government. The students are imparted value-based education to inculcate life skills and values for their holistic development. Value Added Courses (VAC) introduced under NEP include, “Ayurveda and Nutrition”, “Emotional Intelligence”, “Reading Indian Fiction in English”, “Science and Society”, “Sports for Life”, “Vedic Mathematics” and “Communication in Everyday Life”. More such interdisciplinary, skill-based and value-based courses shall be added in the subsequent semesters for the skill and knowledge development of the students.</p>
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	<p>The integration of the Indian Knowledge system is reflected in various initiatives taken by the college. The importance of Indian languages is accentuated through events such as Hindi Diwas-Pakhwada and Webinar on Antarrashtriya Matribhasha Diwas etc. The college magazine encourages article submission in Indian languages and showcases regional art forms. Diversity is also promoted through extra-curricular activities such as folk song and dance competitions, Sikkim week celebration, Traditional North-East Food recipe making competition. The college has signed an MoU to promote knowledge and benefits of Vedic Mathematics. For advocating and promoting the benefits of yoga, regular yoga sessions are held on campus. Recently, a two-day workshop on “Research Proposal Writing” was organised in collaboration with Indian Knowledge Systems Division, Ministry of Education (MoE.). Value-added courses like “Ayurveda and Nutrition” and “Vedic Mathematics” help make students aware of the rich knowledge tradition of our nation. The</p>

	college has initiated the process of establishing a Department of Hindi in the college to cater to the Ability Enhancement Course (AEC) under UGCF, which includes studying Indian Languages. The college shall take more such initiatives and introduce courses to integrate with the Indian Knowledge System.
5. Focus on Outcome based education (OBE):	<p>Being a constituent college of the University of Delhi, the college follows the UGCF-2022 curriculum, academic calendar and norms for the commencement of new programmes. Academic calendars as per the University of Delhi's academic schedule are prepared at the beginning of each session. Time table is prepared by the college well in advance for the effective delivery and transaction of the curriculum. Faculty members prepare paper-wise teaching plans and translate them through lectures, PowerPoint presentations, assignments and educational visits to various research institutions and related organizations. Through the period of pandemic and subsequent lockdown, online classes were held and virtual sessions as applicable were carried out for the uninterrupted teaching-learning process. A highly effective evaluation framework governs the evaluation system (named internal assessment) and it consists of assignments, PPT presentations, problem-based and project-based tests, experiential exercises, case studies, flip classes etc. are used for the assessment of students to make them aware of their strengths, skills and even weaknesses in terms of both perception and articulation. Throughout the semester, student mentoring meetings ensure that the subject-specific objectives are understood within the broad academic framework. Also, contact classes are held during the semester and remedial classes are also conducted at the end of each semester. Mock tests are designed for entrance exams and career counselling sessions are organized for final-year students. Various departments benefitted through automation and digitalization for effective implementation and documentation of the curriculum. The weblinks regarding the aim of the course, structure, and syllabi are also available on the college website.</p>
6. Distance education/online education:	The college implemented an online mode of teaching by adopting a blended mode of teaching-learning, after the pandemic restrictions. A dedicated platform

	<p>of Microsoft Teams for online learning and teaching has been utilized since August 10, 2020, for the academic year, 2020-21. A separate digital domain identity was created for the college, “bcas.edu”, using the Microsoft Teams platform. All the faculty members and students were provided with independent ids. The college successfully transferred all of its courses’ contents and facilitated remote access to e-resources and research databases on the college website. All the academic activities such as conducting online assessments, examinations, e-learning, organizing webinars, invited talks, events, conferences and scheduling meetings were successfully achieved last year. Further, under the aegis of IQAC, the aegis Automation and Digitalization committee has conducted various technical training sessions for the smooth transition to digital platforms. The college also has the required preparation for providing online education to students. The details of NEP 2020 initiatives of the college can be checked here: <a href="https://bcas.du.ac.in/academics/national-education-policy-2020/">https://bcas.du.ac.in/academics/national-education-policy-2020/</a></p>
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### Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes. College’s National Service Scheme (NSS) unit facilitates the same. Further, ELC committee is formed w.e.f. from January 21, 2023 under NSS Programme Officer (PO) as an ex-officio convener. Details for the formation of ELC are provided under the following link on college website. Link : <a href="https://bcas.du.ac.in/electoral-voter-club-sweep/">https://bcas.du.ac.in/electoral-voter-club-sweep/</a>
2. Whether students’ co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	Yes. College under the NSS programme (ELC committee) actively participate national SVEEP (Systematic Voters’ Education and Electoral Participation) programme by appointing student campus ambassadors through NSS programme officer. Please check the following link for further information. Link : <a href="https://bcas.du.ac.in/elcs-representative/">https://bcas.du.ac.in/elcs-representative/</a>
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of	Student campus ambassadors work with local district election commission office, and facilitate to educate the electors regarding procedure relating to registration of name in Electoral Roll, correct of their

<p>students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.</p>	<p>existing particulars in Electoral Roll and deletion of name of shifted and deceased family members. College spread the various updated information related to the masses through its website and other media handles. • Voter pledge on Vote's day on 25th January 2023 • Fresh Voter enrollment drive (December' 2022) • National Voter Awareness Contest - uploading of Pop-up banner on college website February, 2022 • Media distributions (November' 2021) For further information please visit the link : <a href="https://bcas.du.ac.in/awareness-programmes/">https://bcas.du.ac.in/awareness-programmes/</a></p>
<p>4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.</p>	<p>NSS unit collaborate with local district election office and national awareness programme to engage in various events to highlight the advancing democratic values among youth. For further information please visit the link : <a href="https://bcas.du.ac.in/projects-and-initiatives/">https://bcas.du.ac.in/projects-and-initiatives/</a></p>
<p>5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.</p>	<p>2022-23: 10% of enrolled college students yet to be enrolled as voters in electoral roll. College already has a mechanism to facilitate their inclusion in the electoral roll and same is under process. L 2017-18: Forwarded names of prospective fresh voters to Election Office For further information, please visit the link: <a href="https://bcas.du.ac.in/fresh-voter-enrollment-data/">https://bcas.du.ac.in/fresh-voter-enrollment-data/</a></p>

## Extended Profile

### 1 Students

#### 1.1

Number of students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1350	1314	1335	1200	1110

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 2 Teachers

#### 2.1

Number of teaching staff / full time teachers during the last five years (Without repeat count):

Response: 111

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 2.2

Number of teaching staff / full time teachers year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
85	86	86	76	72

### 3 Institution

#### 3.1

Expenditure excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
187	189	272	294	124



## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curricular Planning and Implementation

##### 1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

##### Response:

As a constituent college of the University of Delhi, Bhaskaracharya College of Applied Sciences (BCAS) adheres to the curriculum designed by University of Delhi. The program is based on Learning Outcome Based Curriculum Framework (LOCF) which is aligned with the Choice Based Credit System (CBCS) and currently four-year Undergraduate Curriculum Framework (UGCF) program having multiple exit options, in line with the objective and underlying philosophy of the National Education Policy (NEP) 2020. The curriculum is regularly updated by the University to include updated inputs from all the stakeholders and college faculty participate in curriculum designing and modification as a member of Committee of Courses and Board of Studies.

The college has dedicated staff council committees, ensuring effective curriculum delivery through a well-planned and documented process. The College follows the academic calendar prescribed by the University, in addition, all the departments of college also prepare their specific academic calendar for each academic year, mentioning activities planned for effective dissemination of curriculum. After due approval of required academic workload by the Academic Committee, the departmental time-tables are prepared before the commencement of the new semester for smooth delivery of the curriculum. The structure of curriculum permits division of syllabus for theory and practical paper into the required number of lectures. Accordingly, each faculty prepares and submits their respective lesson plan at the beginning of the semester. Continuous assessment of students, tests, assignments, projects and presentations are carried out as per departmental academic calendar and lesson plans.

For effective curriculum delivery, real time records of attendance, time-table, internal assessment, mentorship, teaching workload, Paper-teacher database etc. are maintained through an in-house developed mobile utility that has graduated to a full-fledged real time App “BRAHMA”. Also, the records of various curriculum enrichment activities like workshops, conferences, short term courses, webinars etc. are being maintained through BEAMS, an in-house app integrated in BRAHMA.

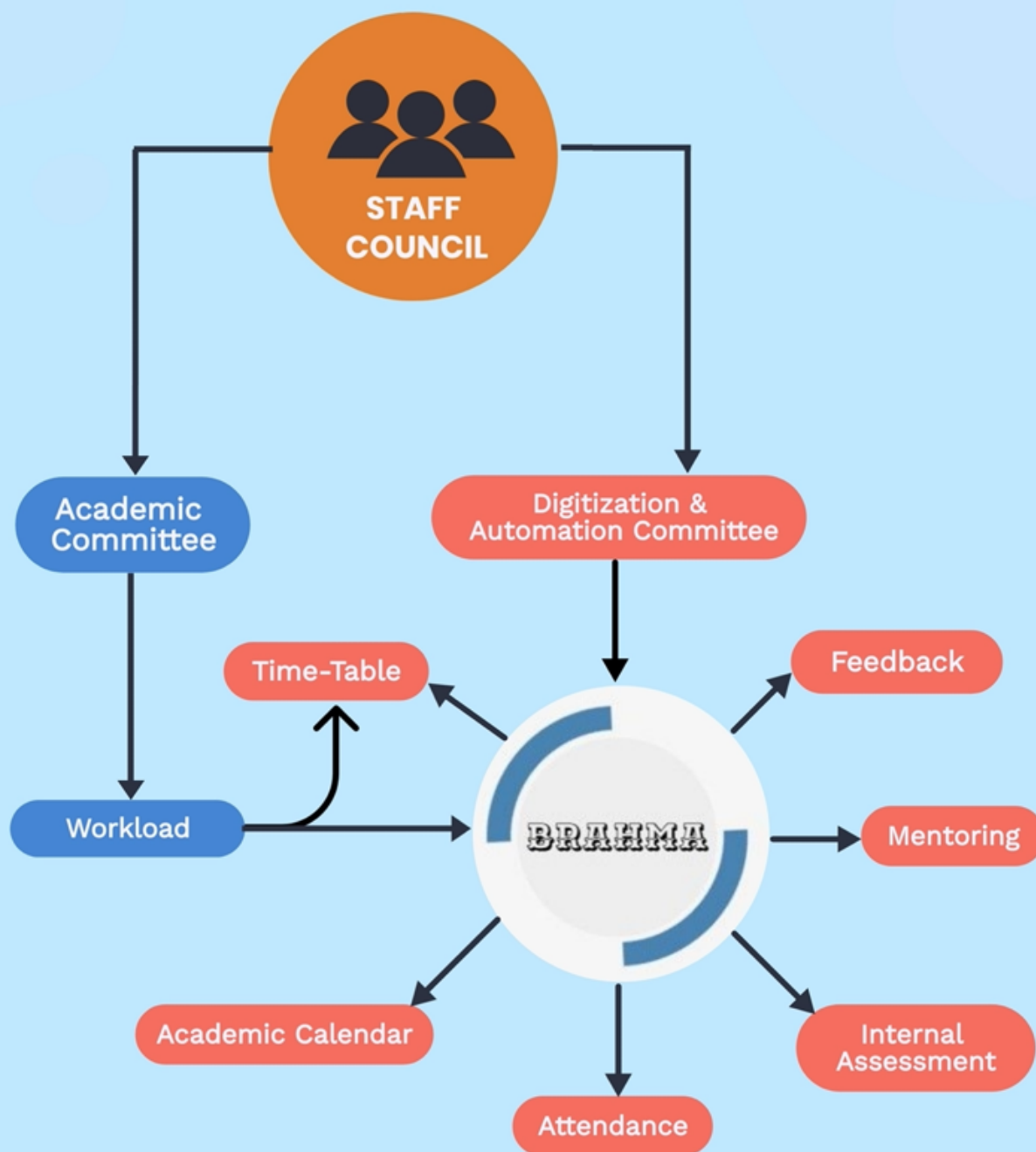
Based on LOCF/CBCS Curriculum, English and Environmental Studies are offered as Ability Enhancement Compulsory Courses (AECC). Generic Elective (GE) courses are offered to promote an interdisciplinary approach among students to help them gain a competitive edge. Skill Enhancement Courses (SEC), Ability Enhancement Courses (AEC) and Discipline Specific Electives (DSE) are floated by all departments with an aim to inculcate human and professional ethics while also sensitizing them about Gender issues and Environment preservation.

In addition to regular courses, value-added/short-term courses are also offered by the College to enhance the skills and knowledge domain of the students. Students are encouraged to enroll in various online courses from NPTEL and MOOC portals provided by Govt. of India to help in pursuit of their future endeavors.



Feedback is sought from students and parents in each session through the online utility of the college for continuous improvement in the teaching-learning process. College faculty participate in the central evaluation process of the University to ensure appropriate evaluation and timely declaration of results. Academic audit is conducted after the end of each session for the compliance of the departmental academic calendar.

## Curriculum Planning and Implementation



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 1.2 Academic Flexibility

### 1.2.1 Number of Add on /Certificate/Value added programs offered during the last five years

**Response:** 36

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 1.2.2 Percentage of students enrolled in Certificate/ Add-on/Value added programs as against the total number of students during the last five years

**Response:** 6.78

#### 1.2.2.1 Number of students enrolled in subject related Certificate/ Add-on/Value added programs year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
221	22	56	10	119

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 1.3 Curriculum Enrichment

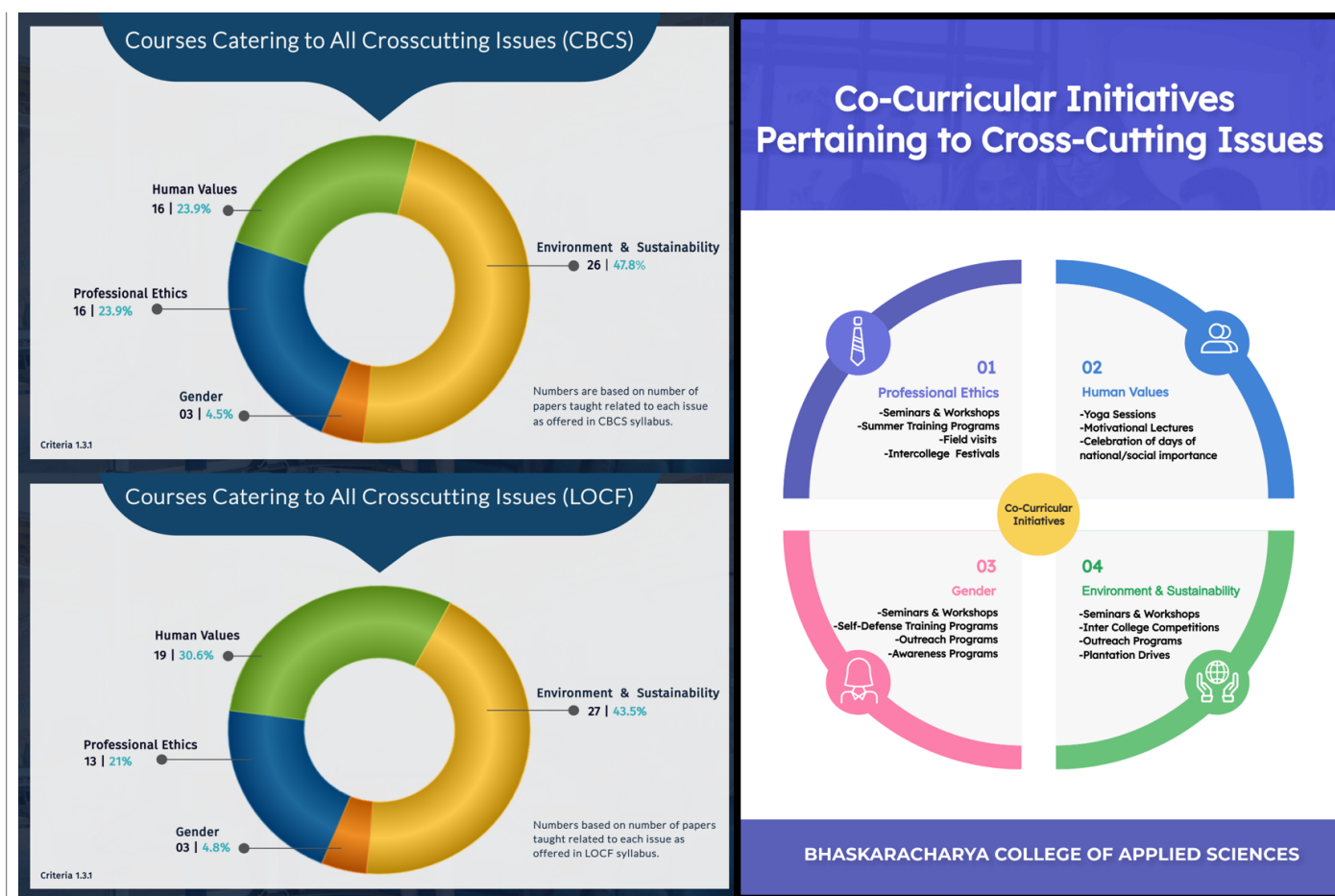
### 1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

**Response:**

- To impart holistic education, cross-cutting issues such as gender, environment and sustainability, human values and professional ethics are included in the curriculum.
- For CBCS curriculum a sizable 47.8 percent of the courses such as Ability Enhancement

Compulsory Course (AECC) titled 'Environmental Studies', Industrial Chemicals & Environment, Environmental Biotechnology, Green Methods in Chemistry, Plant Biotechnology etc. taught aimed at making students aware of the importance of environment and sustainability measures, developing a comprehensive understanding of various facets of life forms and ecological processes and also helping students to identify relevant environmental issues, practices and policies. 23.9 percent of courses (such as Human Genetics, Medicinal Botany etc.) catered to the development of human values and professional ethics (namely Medical Biotechnology, Intellectual Property Rights for Biologists, Methods in Epidemiological Data Analysis etc.) among students.

- For LOCF curriculum environment and sustainability took precedence as 43.5 percent of the courses taught aimed at making students aware of the importance of environment and sustainability measures. Issues pertaining to Gender were covered in 4.8 percent of courses such as Biosafety and Bioethics and Reproductive Biology. Human Values were represented in 30.6 percent of courses (namely Biosafety and Bioethics, Food and Nutrition, Food Microbiology and Food Safety, Concepts in Biotechnology, Medicinal Botany, Green Methods in Chemistry etc. ) taught and 21 percent of courses (such as Intellectual Property Rights, Research Methodology, Economic Botany & Biotechnology etc.) catered to the nurturing of professional ethics among students.
- As far as the obligation of gender sensitization is concerned and to construct a gender subtle environment within the institution and across society, College has successfully organized several expert lectures, training programs and other outreach activities to address gender empowerment (namely a two days seminar on Women Empowerment: Challenges, Needs and Issues, Ten days Self Defence Training Program? for girl students, Awareness drive on Cervical Cancer etc.). These activities encourage students to take in theoretical and practical understanding of the gender issues and also prepare them to face the exact situation and work towards greater gender equity at the societal levels.
- Various staff council committees, clubs and cells of the college work well, to transfer human values and professional ethics into the students. These include NSS, ECA, Vivekanand Vichar Manch, Debate club, Gandhian study center, Swachhata committee, Waste management committee, Music club, dance club, Yoga club, Eco club, Anti-tobacco cell, Bhaskaracharya cell etc. College also offers some papers like environmental studies, software based papers, English etc. to train the students in certain skills and enable them to work in harmony and interact more efficiently in the professional sphere.
- Eco club of the college regularly sensitizes students about the environment and sustainability issues and educates students about pollution, eco-system, recycling, and cost of neglecting the environmental impact of our deeds.
- NSS and Eco club organize events such as tree plantation, Environmental Day, Ozone Day etc. every year, where students actively participate and learn about the significance of the environment.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 1.3.2 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)

**Response:** 67.26

#### 1.3.2.1 Number of students undertaking project work/field work / internships

**Response:** 908

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 1.4 Feedback System

### 1.4.1 Institution obtains feedback on the academic performance and ambience of the institution from

**various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website (Yes or No)**

**Response:** Yes

<b>File Description</b>	<b>Document</b>
Upload supporting document	<a href="#">View Document</a>

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Enrolment percentage

**Response:** 99.27

##### 2.1.1.1 Number of students admitted year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
545	451	456	480	512

##### 2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
554	554	482	436	436

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 2.1.2 Percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (Exclusive of supernumerary seats)

**Response:** 95.55

##### 2.1.2.1 Number of actual students admitted from the reserved categories year - wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
270	211	219	230	229

##### 2.1.2.2 Number of seats earmarked for reserved category as per GOI/ State Govt rule year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
274	274	241	212	212

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 2.2 Student Teacher Ratio

### 2.2.1 Student – Full time Teacher Ratio (Data for the latest completed academic year)

**Response:** 15.88

## 2.3 Teaching- Learning Process

### 2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences using ICT tools

**Response:**

Bhaskaracharya College of Applied Sciences enhances the learning experience of students by adopting student-centric methods like experiential learning, participative learning and problem-solving methodologies both inside and outside the classroom. The curriculum provides students excellent opportunities to develop all-round knowledge and skills for both fundamentals and applied fields of courses. To cater the professional needs of students college focuses on incorporating various activities around experiential learning, participative learning and problem-solving methodologies.

Experiential learning involves visits which bolster students' understanding of the subject further. Students learn the functioning and operating of different instruments and machines during these Industrial trips, field visits, practical training and internship at Industry and/or renowned institutions like TCS, Infosys, ONGC, IISc, Uflex, NBPGR, IITD, etc., Students acquire in-depth knowledge and exposure to various innovative ideas and latest findings of their respective fields by attending various webinars/invited talks/seminars/workshops organized by college during each academic session. In addition, value-added experiments enhance the traditional knowledge of the subject by presenting opportunities to pursue hands-on training, development of experiment design and novel techniques. Virtual practical demonstrations proved to be a vital platform for curriculum delivery during pandemic.

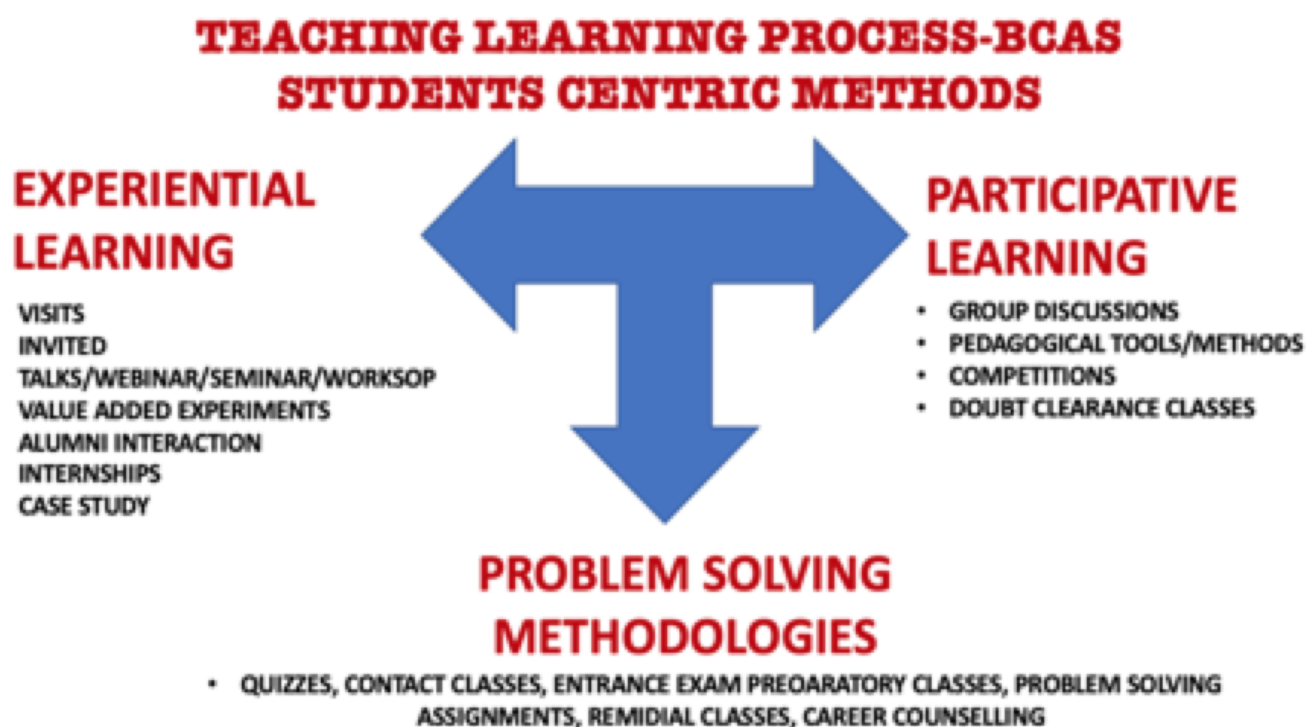
College alumni play a crucial role in professional development of current students by sharing their valuable experiences. College also organizes various internship programs that offer relevant opportunities to enhance student's academic experience.

College employs various pedagogical tools and methods to learn and understand different aspects of



teaching and learning process. Resolution of pressing issues among students is also brought about by interactive session based on relevant case studies which help the students to identify and analyze the underlying cause using theoretical concepts on different themes. Group discussions promote a deeper understanding of a topic and increase long-term retention of the subject. In addition, regular doubt remedial sessions are also undertaken to address the possible lacunae in curriculum delivery during regular classes. College routinely organizes remedial classes for students in need. These classes assist pupils in gaining general knowledge that can be applied to all concerned subject areas. Various departments engage participants in flipped classrooms sessions to amplify the all-round knowledge of the subject.

Competitions of various nature including debate, quizzes, painting, essay writing, science Cosplay, etc. are regularly organized by the college and see active participation of the students in large numbers. Such competitions have proven to be helpful in learning and development of problem-solving skills which lead to better performances in various examinations, in and beyond the college. College also organizes contact classes and entrance exam preparatory classes to help students prepare for the exams and sharpen their comprehension, expression and overall understanding of the subject.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 2.4 Teacher Profile and Quality

### 2.4.1 Percentage of full-time teachers against sanctioned posts during the last five years

**Response:** 95.29

**2.4.1.1 Number of Sanctioned posts / required positions for teaching staff/ full time teachers year wise during the last five years:**

2021-22	2020-21	2019-20	2018-19	2017-18
91	91	91	76	76

File Description	Document
Upload supporting document	<a href="#">View Document</a>

**2.4.2 Percentage of full time teachers with NET/SET/SLET/ Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)**

**Response:** 97.78

**2.4.2.1 Number of full time teachers with NET/SET/SLET/Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
84	84	84	74	70

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 2.5 Evaluation Process and Reforms

**2.5.1 Mechanism of internal/ external assessment is transparent and the grievance redressal system is time- bound and efficient**

**Response:**

Bhaskaracharya College of Applied Sciences strictly adheres to the regulations formulated by University of Delhi in the matters pertaining to syllabi, examination and evaluation. External Assessments are in-tune with the University guidelines and are notified time to time on college website and through notices. During pandemic, Open Book Evaluation process (OBE) was followed by University of Delhi and college adhered to the same. End semester examinations are managed by college appointed Deputy Superintendents.

Faculty members of the college are also involved in examination process as University appointed examiners and college invigilators.

Apart from end semester examinations, Continuous Internal Assessment (CIA) is carried out through a mechanism specified by the University of Delhi. 25% marks in each paper are awarded through CIA where 10% marks are awarded on the basis of assignments, presentations and projects submitted, 10% marks are awarded on the basis of a class test conducted by the concerned teacher and 5% marks are awarded on the basis of attendance. Remaining 75% are awarded during the semester-end examinations. Flexibility in Assessment is available for internal assessment component under the jurisdiction of University of Delhi.

Every quiz theory, practical and tutorial session is accounted for continuous evaluation. Most courses containing both theory and practical components have appropriate weightages that are assigned depending on the number of dedicated hours per week and as per the guidelines.

Academic calendars are prepared at the beginning of each semester and made available on the college website as well as on notice-boards of the departments. The dates for assessments submission are informed well in advance, helping students to plan accordingly. The schedule of other programmes like seminars, summer internship and project are also displayed through the notices well in advance.

The attendance and internal assessment records (assignments, tests and projects) are uploaded periodically on the college website. Same is also available on the college notice boards and can be easily accessed at any time by the student. Students can check their Internal Assessments in real-time by checking on college website using the indigenously developed BRAHMA app of the college.

Assignments, project reports and answer scripts of internal class tests, are discussed with students after evaluation. They may raise their grievances regarding the marks awarded to them with the faculty concerned. In certain cases, if discrepancies are noticed, the college assists the students in getting such errors rectified.

Departmental moderation committees moderates the marks awarded by the individual teachers. The records are uploaded on the college website only after due scrutiny by the committee. Internal Assessment Monitoring Committee of the college takes all the necessary measures to ensure objectivity and transparency in the process.

Results are published by University of Delhi and accessible to the students using Samarth portal of University allowing confidential, easy and instant access. University has provisions for the conduct of Supplementary Exams which allow students an opportunity to retake the exam. University has provision for issuing Transcripts to the students desiring results before declaration.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 2.6 Student Performance and Learning Outcomes

### 2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated

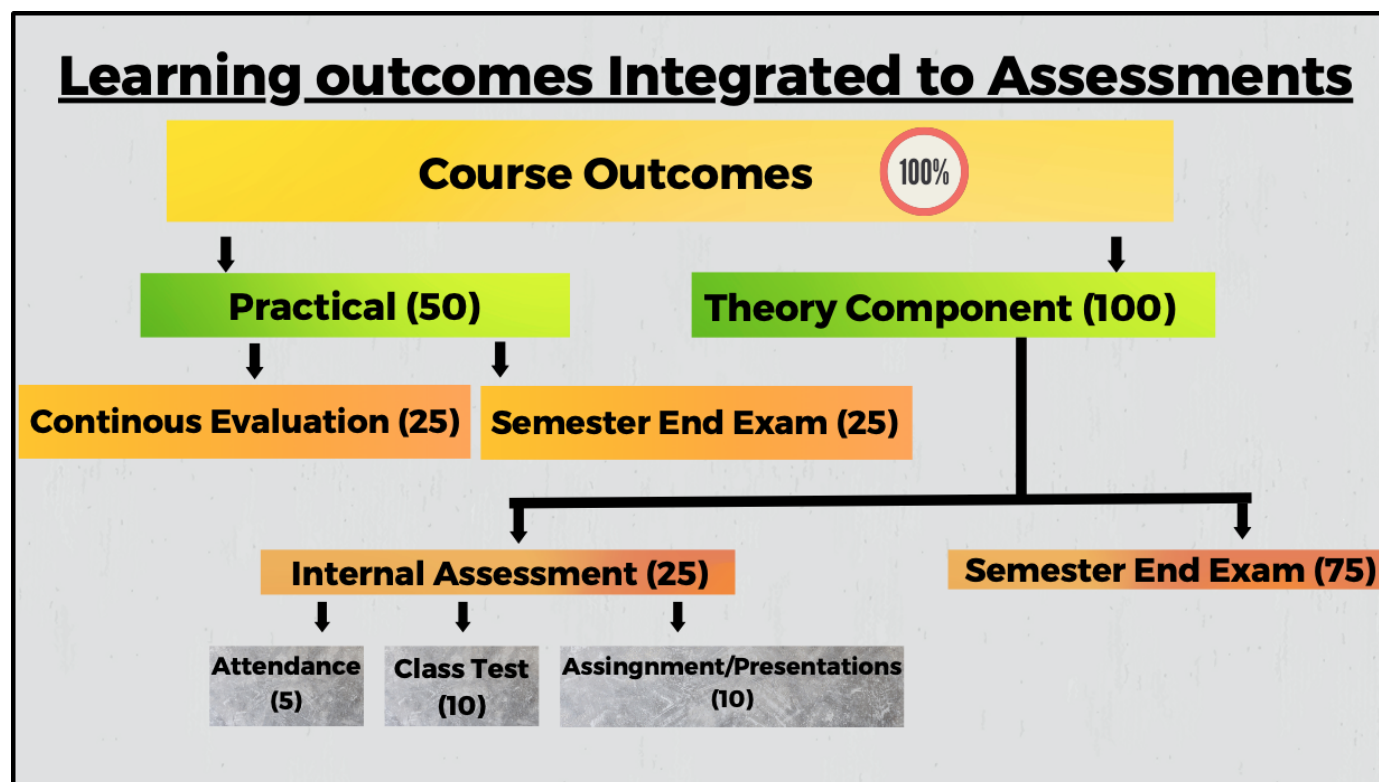
#### Response:

College has well-designed and effective mechanisms to communicate programme and course outcomes to all stakeholders. Curriculum for each program is designed by University of Delhi to meet the outcomes specified.

- The POs and COs are all stated in the LOCF syllabus which is shared on our college as well as the University of Delhi website for making students aware of the same. Due to large diversity in India, a Central University like the University of Delhi gets students from various academic backgrounds, regions and language zones. While maintaining high standards, the Learning Outcome-based Curriculum provides enough flexibility to teachers and colleges to respond to the diverse needs of students. The syllabus is designed with all the learning outcomes stated clearly, helping students to refer the syllabus and identify whether specific outcomes are achieved. The design of teaching-learning program is broadly based on the following outcomes:
- **Qualitative Skills:** Provides vast scope for critical thinking, team work and exposes students to techniques useful for applied areas of curriculum.
- **Knowledge Skills:** Students acquire theoretical knowledge and understanding of the fundamental concepts, principles and processes.
- **Laboratory Skills:** During the course, students develop laboratory skills as a much valued learning outcome of this programme. Quantitative techniques gained through hands-on training provides student with valuable options of joining the industry-laboratory work force.
- **Communication Skills:** Since communication is a highly desirable attribute to possess, opportunities to enhance students' ability to write methodical, logical and precise reports are inherent to the structure of the programme. Techniques that effectively communicate academic content to large audiences are acquired through oral and poster presentations and regular laboratory report writing assignments.
- **Research skills:** Students get opportunities to develop their research skills through continuous laboratory exposure, class projects, research projects and dissertations.

All students are apprised of the objectives and expected outcomes of their programme during the compulsory orientation programs. Students are also provided with the detailed syllabus of all the courses. For every course in the respective programme, Course Outcomes (CO) are outlined and mapped to Program Outcomes (PO) and PSO (Program specific outcomes). As outlined by the University, the entire course is split into several papers to be taught during the entire programme of six semesters, namely, core course (CC), Discipline Specific Elective (DSE) course, Skill Enhancement Course (SEC) Generic Elective (GE) Course and Ability Enhancement Compulsory Courses (AECC). The core courses form the backbone while Discipline Specific Elective (DSE), Generic Electives (GE) and Skill Enhancement

Courses (SEC) provide a holistic and multidisciplinary approach to the programme. The Course Outcomes (CO) attainment is calculated on the basis of enrolled students scoring more than 75% in each course. All of the courses contributing to the Program Outcome (PO) are recognized and assessed via both direct and indirect assessment methods. The degree of achievement of each Course Outcome (CO) is compared to the specified targets and faculty offers ways to improve it, if targets are not met.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 2.6.2 Pass percentage of Students during last five years

**Response:** 94.48

### 2.6.2.1 Number of final year students who passed the university examination year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
442	399	251	300	472

**2.6.2.2 Number of final year students who appeared for the university examination year-wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
443	429	271	317	513

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**2.7 Student Satisfaction Survey****2.7.1 Online student satisfaction survey regarding teaching learning process****Response:** 3.68

File Description	Document
Upload database of all students on roll	<a href="#">View Document</a>

## Criterion 3 - Research, Innovations and Extension

### 3.1 Resource Mobilization for Research

**3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)**

**Response:** 280

**3.1.1.1 Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
9	17	68	48	138

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 3.2 Innovation Ecosystem

**3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge**

**Response:**

The College is actively engaged in creating an ecosystem for innovations by inculcating entrepreneurial skills, imparting knowledge, opportunities for start-ups and creating awareness about Intellectual Property Rights among the faculties, researchers and students. In order to provide a strong impetus to the spirit of innovation, and skill enhancement through exchange programmes, the college has signed a number of MoUs with various organizations. Furthermore, the college is at the outset of establishing an Incubation Center to facilitate its researchers for transfer of knowledge. The College strives to promote innovation by fostering research aptitude among the students thereby developing and disseminating new technologies, knowledge and skills through multifaceted initiatives such as novel product development, patents filed as well as transfer of technology. Highlights of such endeavors are as follows-

**1. Entrepreneurial skills and Intellectual Property Rights (IPR):** In order to create the right mindset for innovation, it is important to inculcate entrepreneurial skills in students by providing training and information about various funding opportunities. In addition, creating awareness about the benefits of IPR is the key to protect the work of innovators and entrepreneurs. A number of seminars and workshops were conducted to fulfill these objectives.

**2. MoUs:** The College has signed a considerable number of MoUs with both international and national



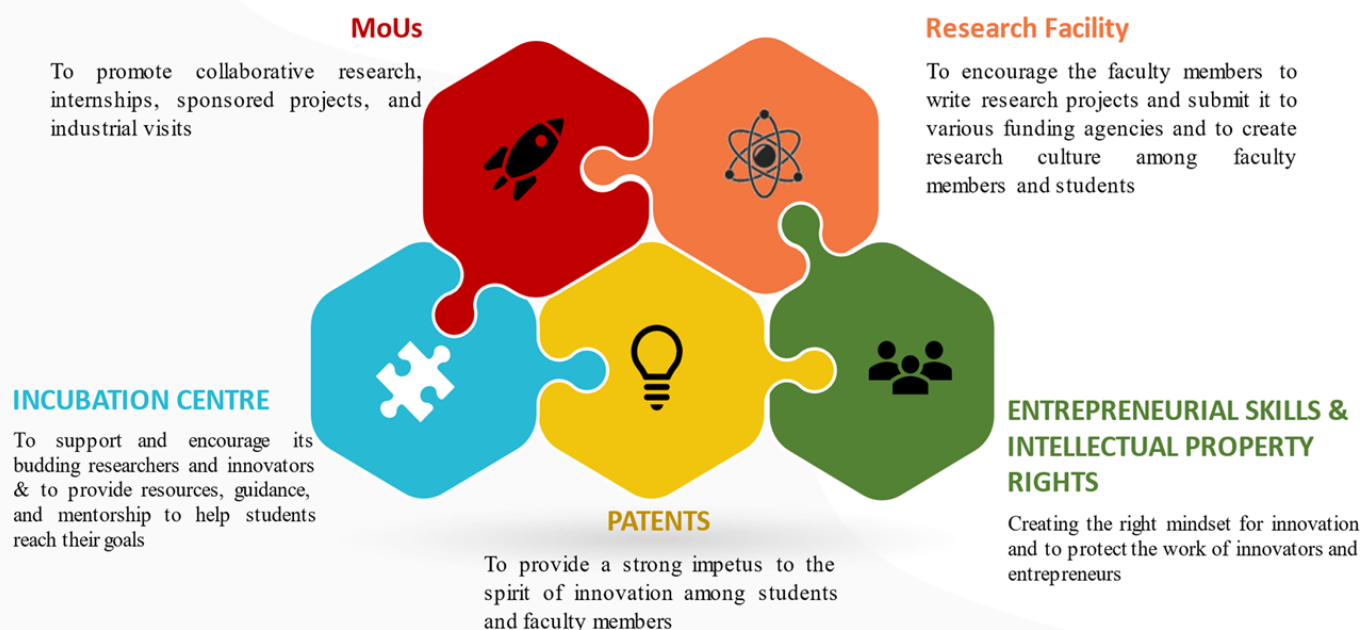
academic and non-academic organizations in order to promote collaborative research, internships, sponsored projects, industrial visits and other academic exchange programmes. These MoUs include those with Kansas State University (USA), Catholic College, Kerala, Lakshya, A Society for Social and Environmental Development, JK Polymer Industries, and Mother Dairy Fruits and Vegetables Pvt. Ltd. etc.

**3. Research facility:** The College has a Research, Project Assessment and Ethical Committee which encourage the faculty members to write research projects and submit it to various funding agencies. Research and Project Committee not only helps to create research culture among faculty members and students but also organizes various hands-on training and workshop from time to time.

**4. Patents:** According to the patent portfolio of University of Delhi (DU) available on <http://www.du.ac.in/uploads/Patents.pdf>, DU has acquired 115 patents since 1994, of which 8 have been granted to constituent colleges of DU. Bhaskaracharya College of Applied Sciences (BCAS) has been granted two of these patents. This indicates that BCAS has provided a strong impetus to the spirit of innovation among students and faculty members.

**5. Incubation Centre:** The College is taking the first steps towards creating an Incubation Center to support researchers. This center will provide a platform for students to develop their ideas and explore potential opportunities. It will also provide resources, guidance, and mentorship to help students reach their goals. The Incubation Center will be a valuable asset to the College and will also create a network of like-minded individuals who can collaborate, share their knowledge and experiences.

## Ecosystem for Innovation





File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### **3.2.2 Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years**

**Response: 114**

#### **3.2.2.1 Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
27	46	19	14	08

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## **3.3 Research Publications and Awards**

### **3.3.1 Number of research papers published per teacher in the Journals notified on UGC care list during the last five years**

**Response: 1.81**

#### **3.3.1.1 Number of research papers in the Journals notified on UGC CARE list year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
87	43	31	25	15

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**3.3.2 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years****Response:** 1.03**3.3.2.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
17	30	36	24	7

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**3.4 Extension Activities****3.4.1 Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the last five years.****Response:**

The college believes in providing opportunities for all round development of its stakeholders and the communities through a number of extension programmes and outreach activities that address social issues for their holistic development. The college organizes several activities to promote institute-neighborhood community relationship and sensitize students towards the community needs. The **National Service Scheme [NSS Cell]**, **Women Development Cell [WDC]** along with other Committees and also departments are always in the forefront with various outreach activities. The **WDC** organized several **Self Defense Training Programmes** for women of college and neighboring societies in collaboration with **Delhi Police** with a prime focus towards women empowerment and safety. A **Sanitary Pad Distribution Drive** was organized as a part of outreach programme on **Menstrual Health Awareness Drive** by the cell in the neighborhoods. **NSS Cell** is actively engaged in various initiatives towards creating awareness and services to the society. Major highlights of such programmes are "**Slum Awareness Drive**", "**Clothes Distribution Drives**", "**Door to Door Plastic Collection Drive**", etc.

The **Eco Club "Pranahi"** actively engages students in promoting environmental consciousness and sustainability through different programmes. The club organizes outreach activities, competitions, campaigns in association with nearby school and NGOs, towards creating general environmental awareness. The **Eco Club** in association with **Lakshay, A Society for Social and Environmental Development** organized various outreach and awareness drives in the neighborhoods to promote environmental friendly practices.

Several outreach programmes with major focus towards food safety and hygiene, were conducted in the

neighboring communities by the college. A number of surveys related to safe and nutritious food among school children, awareness programmes for food adulteration and packaging material and antibiotic resistance drive were also conducted. Departments regularly engaged their students in creating cancer awareness in association with different organizations and hospitals. The college successfully organized a **Summer Training Program** on “**Unite for Corona Warriors (UFCW2020)**” for undergraduate students and included activities to enhance creative learning with enhanced capability of scientific reading. Students were empowered for preparing themselves and the society to face emergent situations like pandemics. The college in association with “**Bachpan**”- Save The Innocence - A public Trust organized **Sexual Abuse Awareness Programme “HOPE- Hold On Pain Ends”** to sensitize the youth about **Childhood Sexual Abuse (CSA)** and how deep rooted this problem is in our society. An outreach workshop on “**Fostering Scientific Temperament: Vision 2021-22**” was organized by the college, for rural school students of Sant Kirpal Model Senior Secondary School with an objective to ignite young minds and generate interest in the field of science and technology.

In addition, departments of the college organized several visits at different institutes and research facilities for seminars, workshops, and trainings as part of extension programmes in order to inculcate scientific and research temperament among the students. A major highlight of such extension activities include the participation of the students during the **National Science Day** programmes, where several departments of the college were involved.

#### Clubs/Committees/Cells and Departments engaged in Extension Activities.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

#### 3.4.2 Awards and recognitions received for extension activities from government / government

**recognised bodies****Response:**

The college has received numerous awards and recognitions from government and government recognized bodies for the extraordinary contribution towards societal benefits. These awards are for recognizing the excellence of academic, administration, research and social issues. College validates its contributions towards academics, administration, research, teaching and infrastructure on war footing by complying with the standards of recognized agencies like NIRF, India Today and NAAC.

The Internal Quality Assurance Cell (IQAC) monitors and ensures high academic and extracurricular activity standards being maintained at every level. Research projects and conferences/seminar/symposia provide excellent platform to faculty and research scholars to present their innovative ideas/findings at suitable forum. These contributions are acknowledged at appropriate forum in the form of appreciation and awards, which further motivates the stakeholders. In-house projects, industrial visits, internships also showcase the inherent caliber of students.

The Gandhian Study Centre (GSC) has received award from University of Delhi for active participation in inculcating values of Mahatma Gandhi and creating awareness regarding his thoughts and beliefs. Food Safety and Standards Authority of India (FSSAI) has surveyed the college cafeteria and certified as “Eat Right Campus” for maintaining all standard hygienic facilities as per their norms. The College was awarded Dr. S. Radhakrishnan Memorial Award by Respect India, in recognition of extraordinary services, dedication and contribution in field of teaching and learning. Keeping community service in mind, the college organizes blood donation camp from time to time, for such a noble task, the college has received Certificate of Appreciation from Mission Jan Jagriti Blood Bank.

Faculties of the college have also been awarded with several awards and recognitions for their academic excellence and societal contribution. Major highlights of such awards and recognitions include Meritorious Teacher by Directorate of Higher Education, NCT of Delhi, INSA Teacher award from Indian Science Academy, Transformational Teacher Award from Sharda University, Bharat Ratna Dr. Radhakrishnan Gold Medal Award from Global Economic Progress and Research Association, Nutrischolar Award from DU-PONT Nutrition & Health, South Asia, Rockefeller Foundation Prize Food System Vision Prize 2020 and many more. Faculty had also received Letter of Appreciation from North Delhi Municipal Corporation (NDMC), Community Service Department, Delhi, for the contribution towards counselling session during Covid-19 pandemic at the dire need.

Lakshay, A Society for Social and Environmental Development (collaborator), has been actively engaged with the college students in several extension programmes towards wellbeing of neighboring societies, for which the college received the recognition as Mentor for its contribution. Students of the college were also bestowed with Polytope Award from Catholic College, Kerala (collaborator). The students of Music Club ‘Moksha’ of the college were appreciated and felicitated at the International Summit on Women in STEM organized by Department of Biotechnology (DBT), Ministry of Science & Technology, for their creative skills. Our students were bestowed with trophy and appreciation certificates by DBT for their contribution.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

**3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organised in collaboration with industry, community and NGOs) during the last five years**

**Response:** 148

**3.4.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
45	14	32	34	23

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 3.5 Collaboration

**3.5.1 Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.**

**Response:** 130

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

#### 4.1.1 Availability of adequate infrastructure and physical facilities viz., classrooms, laboratories, ICT facilities, cultural activities, gymnasium, yoga centre etc. in the institution

##### Response:

College has state-of-the-art infrastructure and academic support facilities that contribute to effective learning of the students. Covering a total campus area of 39408.03 sqm, it has a plush green campus and a three storey building that house various departments, seminar rooms and a well furnished library. There are thirteen spacious lecture theaters equipped with LCD projectors and adequate furniture for comfortable seating and effective teaching-learning. There are two seminar rooms (Conference room and Audio-Visual room), both fitted with air conditioner and LCD projector, which are used for conducting various academic activities. The eleven major departments have 20 laboratories in total, equipped with high-end instruments that are used for both curriculum practical as well as research purposes. The college is also well equipped for meeting ICT needs of students and staff enabling effective academic accomplishments. The entire campus is WiFi enabled and has a broadband speed of 100 Mbps. IT infrastructure is routinely updated and primarily maintained through AMC (detailed in 4.3.1).

The college has an extensive triple-storeyed Library block containing numerous textbooks, reference books, magazines, newspapers and e-journals as per N-LIST subscription. The college has been using the KOHA Library management software since 2017. The library is fully automated with the OPAC (Open Public Access Catalogue) facility. The entire library block is under CCTV surveillance (detailed in 4.2.1).

Apart from these, there is an in-house facility that caters to multiple needs of staff and students such as photocopying, bookbinding, purchase of books & notebooks, and multiple stationery items. Provision for clean and safe drinking water, healthy and tasty food at canteen, and sanitizer for hand hygiene is available in the campus. Extra care is taken for meeting the special needs of differentially abled people including ramps, tactile paths, reserved parking and reserved washrooms. In addition, residential quarters for non-teaching staff are available within the college premises.

College has ample infrastructure for facilitating the conduct of various sports activities throughout the year. The sports ground is used for organizing cricket and football matches and recreational sports from time to time. We also have well maintained courts for basketball, volleyball and badminton. There are facilities for several indoor games such as carom, chess and table tennis. College has both, indoor and open gym, having adequate supplies of equipment designed for overall body workout. There is sufficient stock of recurring items available required for the various sports activities.

Extra-curricular activities play a prime importance in shaping the personality of a student, hence the college has required infrastructure for conducting ECA activities throughout the year. College has ECA room that is used for multiple activities like rehearsals, auditions, workshops etc. and a storeroom for musical instruments. There is an open Amphitheatre with a seating capacity of 400+ people for organizing large-scale cultural gatherings. The Conference room, Audio-Visual room and area near the Saraswati idol are also used for regular conduct of ECA activities. The annual cultural festival Srijan is conducted at the college grounds with properly set stage and projector screen.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

#### 4.1.2 Percentage of expenditure, excluding salary for infrastructure augmentation during last five years (INR in Lakhs)

**Response:** 13.88

##### 4.1.2.1 Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
3	10	78	52	5



File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

### 4.2.1 Library is automated using Integrated Library Management System (ILMS), subscription to e-resources, amount spent on purchase of books, journals and per day usage of library

#### Response:

The three-storey college library is well-stocked with diverse literature. The lower ground floor is primarily a stack room with ten reading spaces. The upper ground floor has a circulation counter, reading space for students for consulting reference books, and a separate one for faculty members. There is a well-lit reading room for students on the third floor. The total seating capacity of the library is 142. There are 52 computers (25 laptops and 27 desktops) for students and staff. Seven Braille books and two computer systems are there for visually impaired students. The Library committee is in charge of overseeing the functioning of library, and meetings pertaining to the same are held in a room next to the library with a seating capacity of nearly 20 people.

The library was automated in 2008 with LIBSYS software and later on switched to Koha, an open-source Integrated Library Management System (ILMS) in 2016-2017 (Version-18.05.07.000). The library is automated with Koha ILMS, which helps to locate essential reading materials. The library uses Koha-powered Online Public Access Catalogue (OPAC) and is accessible with Wi-Fi. OPAC module allows users to check the availability of a particular book in the library and it has one dedicated computer for this purpose. The library is partially automated with Radio Frequency Identification (RFID) system which runs on Koha-ILMS. The Koha software was provided to the library along with the purchase of RFID system. 14,500 books are RFID tagged, and issue of these books is facilitated by the RFID tags. Orientation about various library facilities, including Koha software, is carried out periodically for students and staff.

At present, the library has 27,068 books and 30 journals among which 2210 have been purchased in last five years. Expenditure on purchase of books during last five years is INR 15,81,305 and for National Library and Information Services Infrastructure for Scholarly Content (N-LIST) is INR 35,250. We regularly add to the collection to fulfill pedagogical needs of the evolving curriculum. 1,195 CDs and 16 DVDs of various disciplines are available in the library database. The library subscribes to 10 newspapers and 18 magazines and has a rich collection of 488 reference textbooks and 336 bound volumes of print journals. In keeping with the demand of the changing times, e-subscription is one of the tools for ease of access to information, therefore the library has subscriptions to e-resources. The college library subscribes annually to N-LIST since 2012, allowing students to access a vast collection of e-resources (6,293+ e-journals and 1,95,809+ e-books) from off-site locations. In addition, the college has remote access to e-resources and databases via Delhi University Library System (DULS).

Students use the library resources and visit the library on a regular basis. The average per day footfall of students and teachers in the latest academic year is 25.97. Remote access to e-resources via N-LIST is widely seen and it equals to 788 in the last five years.





**27068 Books**



**336 Bound volume Journals**



**30 Journals**



**Wifi**

**READ,  
ADORE,  
AND GIVE IT  
BACK**



**6200+ N-LIST e-journals  
and 1,95,000+ N-LIST e-  
books**



**Braille- (2  
computers  
and 7 books**



**142 seating capacity**



**Six Library Staff**



**9 AM-5 PM**



**Subscription to  
18 Magazines and 10 newspapers**



**52 Computers  
(Laptops and desktops)**

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 4.3 IT Infrastructure

#### 4.3.1 Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

##### Response:

The college has staff council-constituted committees pertaining to IT facilities namely, Annual Maintenance committee, Website committee and Automation and Digitization committee. Annual maintenance committee looks after major and minor repairs of IT infrastructure present in college. Annual maintenance contract at present is with M/s Laksh Computers.

Website committee strives to provide extensive, updated information about the college reflecting its vision and mission. Presently, the tender of the website is given to M/s Maxtra Technologies. The website is disabled-friendly and it has a feature for altering text size for ease of reading. Various links for downloading screen reading software for the visually challenged are also available on the website.

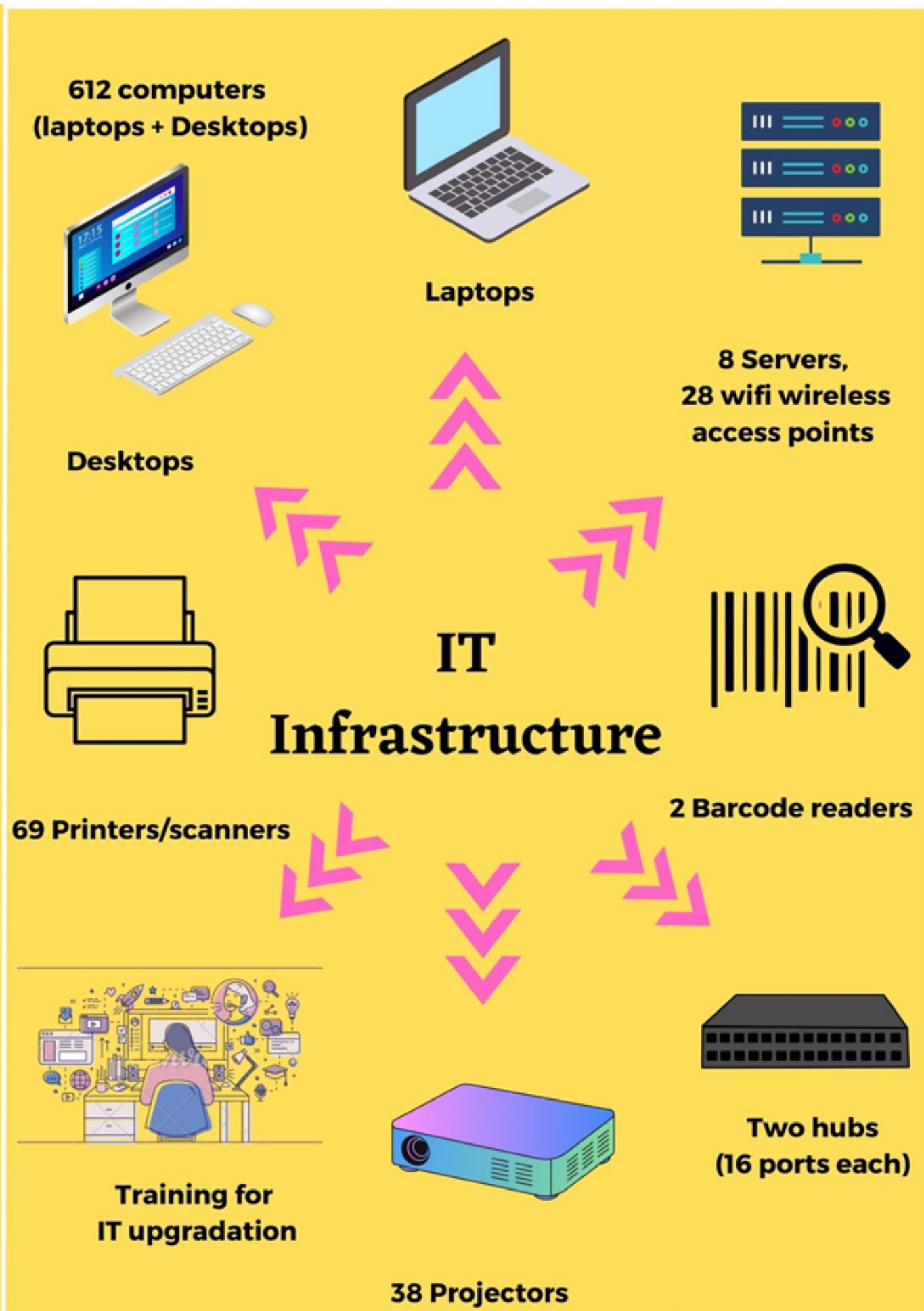
The Automation and Digitization Committee has been instrumental in streamlining various information resources digitally. It has eased the process of data management and helped in reducing the use of paper. The college launched its two indigenously built applications BRAHMA (BCAS Resource Automation, Handling, and Management Application) and BEAMS (BCAS Event Automation & Management System). These apps have been conceptualized and designed by the Digitization & Automation Committee and are free of cost. BRAHMA and BEAMS are web applications powered by Google. BRAHMA enables the college to manage various types of information generated such as student data, attendance, internal assessment, timetable, student's feedback, budget etc. BEAMS is a dedicated application to manage and automate event-related processes such as participant registration, communication, certificate generation and feedback. Through these applications staff can access and manage various college and individual data conveniently using desktop, laptop, tablet and phone. It also enables the college to maintain a central database and it is accessible anytime and anywhere in a secure manner.

The college facilitates IT-related work providing a facility of around 612 computers (laptops and desktops), 69 printers/scanners, 38 projectors, 121 UPS, 02 HUBs (16 ports each), two barcode reader/scanners, and one RFID reader. A total of 594 laptops/desktops are available exclusively for use of students. Funding for all equipment (including all IT items) is from the Directorate of Higher Education (DHE), as our college is 100% funded by the Government of NCT, Delhi. The college has received laptops from the University of Delhi as well. Apart from this, funding is received from UGC and also for

individual faculty projects for the purchase and maintenance of IT-related items from funding agencies like SERB, DST, ICMR.

The college has a 100 MBPS bandwidth connection to ensure the smooth operation of academic and administrative functions. The college has 8 servers, 28 Wi-Fi wireless access points, 13 switches for the internet, two jack panels, and 25 wireless cards for establishing uniform network connectivity throughout the campus.

The college organizes various workshops, seminars, and training for upgrading IT skills for teaching, non-teaching staff and students. Workshops have been conducted on Government e Marketplace, decoding beams, decoding brahma, computer literacy and special webinar series on cyber security awareness. The objective of these series was to sensitize participants about cyber security and prevent cyber-crime.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

#### 4.3.2 Student – Computer ratio (Data for the latest completed academic year)

**Response:** 5.87

##### 4.3.2.1 Number of computers available for students usage during the latest completed academic year:

Response: 230

File Description	Document
Upload supporting document	<a href="#">View Document</a>

### 4.4 Maintenance of Campus Infrastructure

#### 4.4.1 Percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years (INR in Lakhs)

**Response:** 86.12

##### 4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
184	179	194	242	119

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## Criterion 5 - Student Support and Progression

### 5.1 Student Support

#### 5.1.1 Percentage of students benefited by scholarships and freeships provided by the Government and Non-Government agencies during last five years

**Response:** 8.94

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government and Non-Government agencies year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
241	110	64	76	73

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 5.1.2 Capacity building and skills enhancement initiatives taken by the institution include the following

1. Soft skills
2. Language and communication skills
3. Life skills (Yoga, physical fitness, health and hygiene)
4. ICT/computing skills

**Response:** A. All of the above

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 5.1.3 Percentage of students benefitted by guidance for competitive examinations and career counselling offered by the Institution during the last five years

**Response:** 65.03

5.1.3.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1296	902	1271	521	113

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

#### 5.1.4 The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

1. Implementation of guidelines of statutory/regulatory bodies
2. Organisation wide awareness and undertakings on policies with zero tolerance
3. Mechanisms for submission of online/offline students' grievances
4. Timely redressal of the grievances through appropriate committees

**Response:** A. All of the above

File Description	Document
Upload supporting document	<a href="#">View Document</a>

## 5.2 Student Progression

#### 5.2.1 Percentage of placement of outgoing students and students progressing to higher education during the last five years

**Response:** 59.72

##### 5.2.1.1 Number of outgoing students placed and / or progressed to higher education year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
271	251	168	196	251

##### 5.2.1.2 Number of outgoing students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
448	414	264	301	477



File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 5.2.2 Percentage of students qualifying in state/national/ international level examinations during the last five years (eg: JAM/CLAT/GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

**Response:** 77.68

#### 5.2.2.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Judicial Services/Public Prosecution services/All India Bar Exams/State government examinations) year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
130	105	73	94	113

#### 5.2.2.2 Number of students appearing in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT,GRE/ TOFEL/ Civil Services/ State government examinations) year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
205	150	78	100	130

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 5.3 Student Participation and Activities

### 5.3.1 Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years

**Response:** 180

#### 5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at



*national/international level (award for a team event should be counted as one) year wise during the last five years*

2021-22	2020-21	2019-20	2018-19	2017-18
46	53	46	21	14

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 5.3.2 Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)

**Response:** 58.8

#### 5.3.2.1 Number of sports and cultural programs in which students of the Institution participated year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
74	60	69	46	45

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 5.4 Alumni Engagement

### 5.4.1 There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

**Response:**

The contribution of an institute to the society and nation can be judged by the achievements of its students and its alumni. They contribute significantly to the development of the college, country and society at large.

Registered Society: Bhaskaracharya College of Applied Sciences - Alumni society has been registered under Societies Registration Act of XXI of 1860 in December 2022. The inaugural session ceremony of the

registered society was held on 28 January 2023. Alumni committee of the college is constantly working towards strengthening ties with college alumni. The committee encourages their cooperation, participation and involvement by organizing alumni meets every year which promotes a meaningful dialogue and exchange of ideas. These meets celebrate and strengthen the relationships and acknowledge the contributions of alumni.

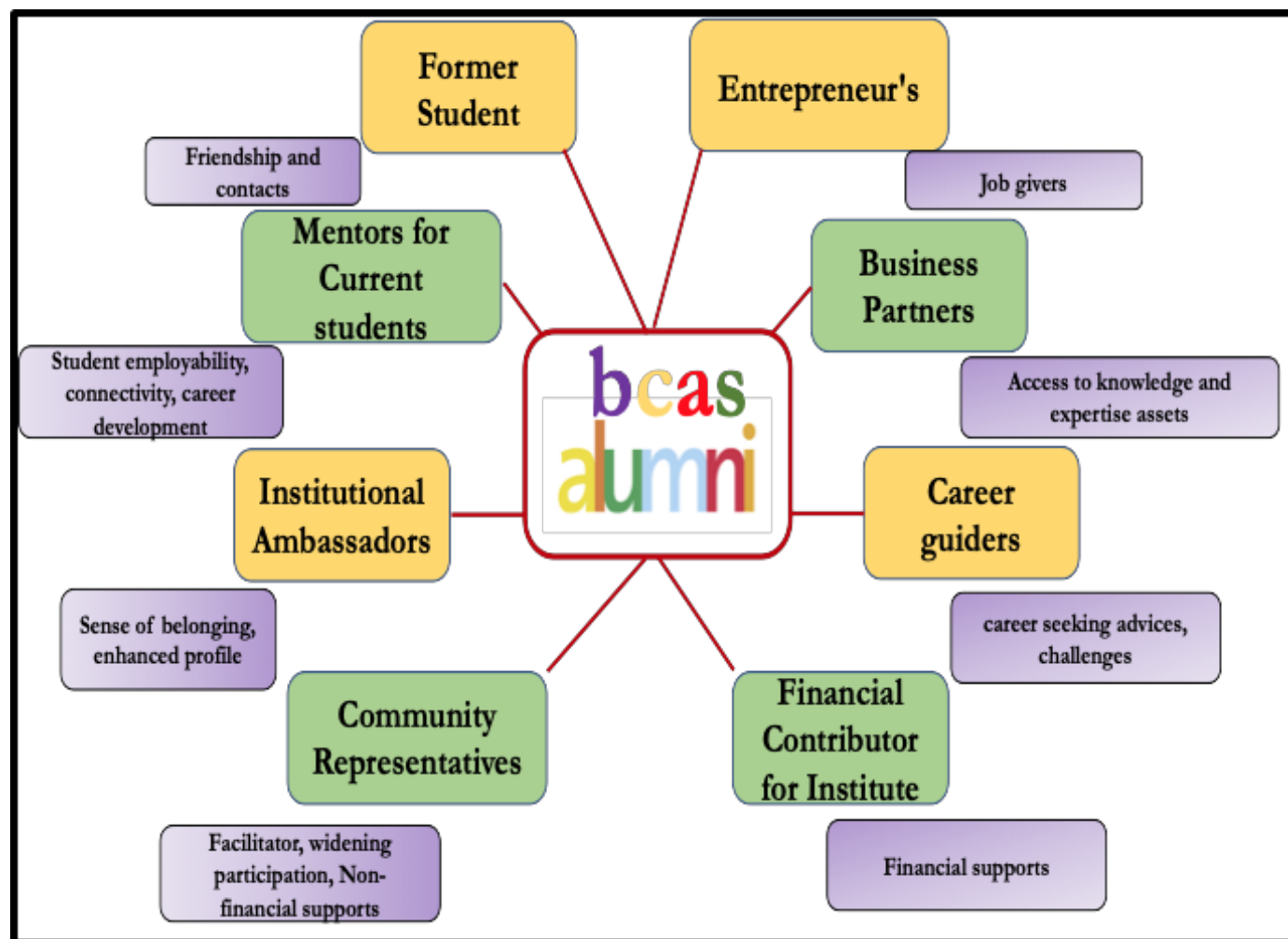
A dedicated Alumni tab is available on the college website through which college collects and maintains all relevant information about alumni. This tab is in sync with college Automation BRAHMA App (details of which are provided in Institutional Distinctiveness) and through which department-wise data can also be analyzed in real-time. In the digital era, departments formulate specific groups on social networking sites in order to keep track of their outgoing students. They also encourage and support alumni in their higher education and placement endeavours.

Outgoing batches are encouraged to maintain contact with the college and their departments. They are invited on several occasions as resource persons to deliver lectures, conduct workshops, career counselling sessions, and mentor students for placement drives. Alumni contribute their services and judge inter- and intra-college competitions. They share their experiences in the areas of skills, recent technologies and trends which help our students in their future career paths.

Financial and non-financial contributions: Alumni have also contributed financially through sponsorships in various departmental festivals in the last five years. Furthermore, alumni support the college by providing non-financial, in-kind support services such as sponsoring the college logo, plane model, other non-recurring items and live music event.

Our alumni are doing exceptionally well in their respective fields. During the COVID times, research work carried out by our alumnus with his group at Indian Institute of Technology, Delhi indicated a therapeutic role of tea extract and haritaki against COVID 19. Their research work was tweeted by #DrHarshVardhan ji... Honourable Health Minister. The group was also involved in launching a COVID testing kit which was approved by Indian Council of Medical Research, New Delhi. Interestingly some of alumni students are pursuing their doctoral studies under the able guidance of college faculty members and are also inducted as project fellows in college research projects. Few of them have been appointed as teaching faculty in our college and also in other colleges of University of Delhi.

Distinguished Alumni Award: The college recognizes outstanding alumni who have made us proud through their contributions and achievements in the fields such as science and technology, corporate governance, public and social services etc. Each year the college gives the Distinguished Alumni Award to appreciate their achievements.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

**6.1.1 The governance and leadership is in accordance with vision and mission of the institution and it is visible in various institutional practices such as decentralization and participation in the institutional governance**

**Response:**

The college is committed to mentoring students to achieve excellence through holistic education. To fulfil this vision, the college is constantly working to create and sustain an environment that shall enable students to experience an unparalleled educational journey that is intellectually, socially and personally transformative. The leadership and governance of the college are based on the principles of participative management and decision-making, which ensures a conducive environment for successfully implementing the vision and mission of the college.

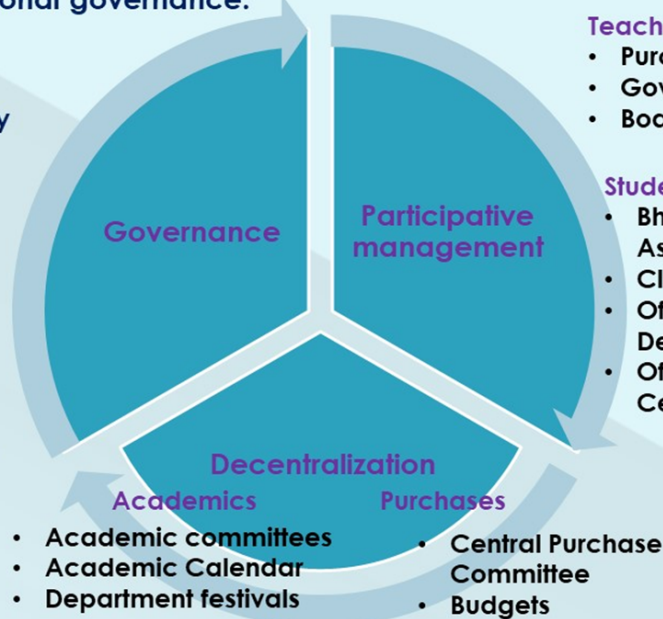
The college exercises a process-oriented mechanism for delegating authority and providing operational autonomy to all the functionaries of the college to steer towards decentralized governance. The highest decision-making body of the college is the Governing Body (GB). The GB enables the smooth functioning of college activities as per the University of Delhi (DU) ordinance XVIII. GB approves the proposed budget and expenditure statement for further submission to the Directorate of Higher Education (DHE), Government of NCT. The college affairs are managed as per the guidelines of the University of Delhi as well as DHE, Government of NCT. Formulation and consolidation of action plans for all operations are carried out by the Principal through various staff council committees. The staff council is chaired by the Principal and a teacher is elected as the Secretary, Staff Council (SC), forms the backbone of the college's functioning. The faculty members are given responsibilities under various committees/clubs/cells and are encouraged to conduct activities along with students, who get to develop soft skills by being part of various curricular, co-curricular and extracurricular activities. The college has a mechanism for delegating authority and providing operational autonomy to all the functionaries to work towards a decentralized governance system. The Principal, being the head of the institute along with the Vice-Principal and Bursar ensures, that all policies and decisions are implemented through participative management and strategizes perspective plans accordingly. A teacher-in-charge is appointed for two years (as per seniority) on a rotational basis in each department. Teachers are also appointed as representatives in the Governing Body, for the post of Bursar, Public Information Officer (PIO) and Liaison Officer to fulfil the administrative, financial, and executive responsibilities. In addition to the participation of faculty as Teacher-in-charge and conveners in various committees/clubs/cells. Faculty members contribute to decision-making by being part of various committees of the university and are also involved in purchases. Students also contribute as office-bearers (elected after a due procedure) along with other students who take on the roles of managing and in part organizing different department/committee festivals and other extra-curricular activities. By following the above-mentioned practices, the college ensures decentralization of the institutional practices as well as ensures the participation of all the stakeholders.

\*Documentary proofs for the governing body, staff council and other details about how the college functioning is decentralized to implement its vision and mission are provided under this metric.

6.1.1: The governance and leadership is in accordance with the vision and mission of the institution and it is visible in various institutional practices such as decentralization and participation in institutional governance.

#### Decentralized Governance

- Governing Body
- Staff Council
- Principal
- Vice Principal
- Teacher-In-Charges
- Bursar
- Public Information Officers
- Liaison Officer
- Section Officer



#### Teachers as Members of

- Purchase committees
- Governing Bodies
- Board of Studies

#### Students as

- Bhaskaracharya Student Association
- Class Representatives
- Office Bearers in Departmental Societies
- Office Bearers in Cells/Committees

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 6.2 Strategy Development and Deployment

**6.2.1 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, deployment of institutional Strategic/ perspective/development plan etc**

#### Response:

The college is a constituent college of the University of Delhi and is funded 100% by the Government of the National Territory of Delhi. All the policies and service rules provided by the University of Delhi are followed by the college.

The organogram reflects the democratic character of the college and provides the spectrum of responsibilities shared by the stakeholders. The Governing Body (GB) is the highest decision-making body of the college as per the University of Delhi (DU) Ordinance, XVIII. The Chairperson, GB, appoints the Vice Principal, Bursar and Public Information Officer upon recommendation of the Principal. GB supervises finances, infrastructural development and quality measures etc. in the college. The principal, as

the chief administrator of the college, manages the overall functioning of the college ably supported by the faculty and the non-teaching staff.

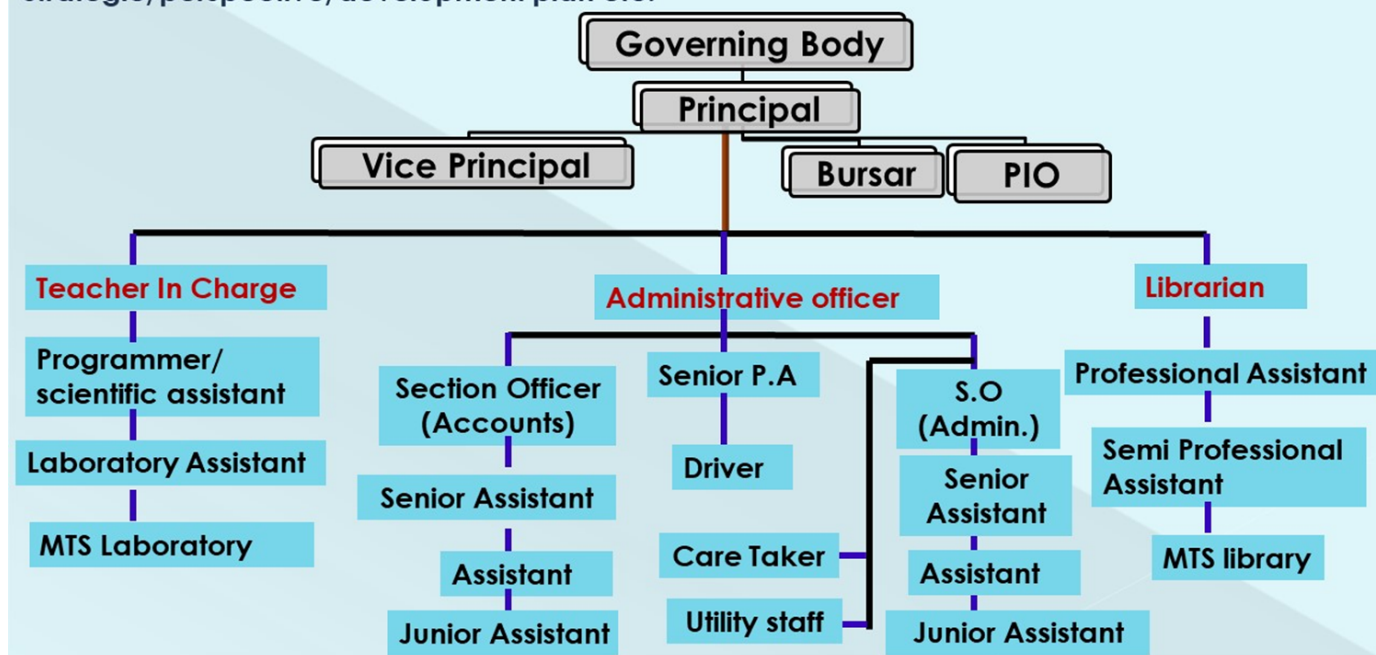
The IQAC of the college plays a key role in assessing and ensuring the quality of the teaching-learning and evaluation process. The Staff Council of the college approves decisions related to academics, workload, timetable, purchases, admissions and extracurricular activities etc. The teachers-in-charges fulfil the academic, financial and co-curricular obligations of their department along with the other members. The Bursar handles financial matters & financial audits of the college. The Librarian supervises the functioning of the library and its staff. The first appellate authority is the Principal, who precedes the PIO.

The administrative and financial decisions are implemented through the respective Section Officers. The caretaker supervises the maintenance of the infrastructure along with staff from housekeeping and security etc. Standard Operating Procedures (SOP) are followed by all staff council committees/clubs and departments to ensure smooth functioning.

The pandemic led to several challenges in continuing with the teaching-learning process. To ensure that the teaching-learning continues smoothly in virtual mode, several strategies were adopted. Initially, Google Classroom was used for teaching and other activities. In July 2020, a unified transition to a Microsoft Teams platform was successfully done for the entire college. Individual ids were created for all stakeholders. It was thoughtfully conceptualized to ensure uniformity in the teaching and learning process with negligible technical snags. Formal training workshops and FDPs were organized by the college to develop proficiency.

To fulfil the vision of the college, teaching and learning reforms were drafted with the aim of digitization and automation of academic & administrative activities. In 2016, the college constituted a committee for Digitization and Automation to migrate from manual recordkeeping processes to digital platforms. The committee developed an Integrated College Management System which uses a network of Google forms and spreadsheets for data entry and a central database to store, manage and analyze data. The committee went on to develop BCAS Resource Automation, Handling and Management Application (BRAHMA) and BCAS Event Automation and Management System (BEAMS) to further digitize the processes. Both are enabled by a login feature, which makes these both user-friendly & safe. Being cloud-based and modular, the data is stored online which can be accessed at all times and can be modified as per requirement.

6.2.1 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, deployment of institutional Strategic/perspective/development plan etc.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 6.2.2 Implementation of e-governance in areas of operation

- 1.Administration
- 2.Finance and Accounts
- 3.Student Admission and Support
- 4.Examination

Response: A. All of the above

File Description	Document
Upload supporting document	<a href="#">View Document</a>

## 6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures and Performance Appraisal System for teaching and non-teaching staff

Response:

**Welfare Measures:**

For the benefit of all stakeholders, the following measures are practised as per the applicable guidelines:

- **Allowances:** Children's Education Allowance, Leave Travel Concession and Home Town Concession are available.
- **Automation and Digitization:** The college's Automation and Digitization Committee created an indigenous MIS for academic and administrative work under BCAS Resource Automation Handling and Management Committee (BRAHMA). Similarly, all curricular/co-curricular/extra-curricular activities can be managed via the app, BEAMS (BCAS Event Automation and Management System).
- **Career Development:** Financial support for attending/presenting on academic platforms is provided. The college organizes seminars/workshops for professional development and skill enhancement.
- **Employment Offered on Compassionate Grounds:** Under most unfortunate circumstances, four of our colleagues lost their lives prematurely. As a token of support, employment to the one member of the family was offered in the college on compassionate grounds.
- **Gratuity:** Gratuity as per the University of Delhi norms is provided to all eligible stakeholders or family of the deceased members.
- **ICT Facilities:** The college has ICT-enabled classrooms and labs for effective learning. The campus is Wi-fi enabled. The college website is mobile and user-friendly.
- **Insurance:** A Group Insurance Scheme is offered by the college which provides life cover to the staff at a nominal premium.
- **Leave Benefits:** Provision for maternity, paternity and child-care leave is available. For professional growth, staff can avail of study leave/extraordinary leave (academic purposes) and can go on deputation and lien.
- **Library:** The library is well-stocked with a reading room, RFID & Wi-Fi-enabled computers and a printer. Members can get books issued as applicable.
- **Medical Benefits:** Medical reimbursements as per the CGHS norms are offered. Staff can also avail of services from the World University Service Health Centre.
- **Pension Benefits:** General Provident Fund and New Pension Scheme are available as applicable.
- **Provident Fund:** A Provident Fund account is active with a provision to request a loan.
- **Residence:** Provision for residence for staff and principal is available on the campus.
- **Sports and Yoga:** The college has a sprawling ground with several indoor and outdoor sports facilities. Various inter-college and intra-college sports tournaments are regularly organized. Yoga sessions are also conducted to promote a healthier lifestyle.
- **Support Facilities:** The college houses a canteen and a facility for photocopying. For clean drinking water, RO water dispensers are available. Designated parking, ramps, wheelchairs and bathrooms for specially-abled members/visitors are also available.
- **Ward Quota:** It can be availed for the eligible offspring seeking admission to UG courses.

**Appraisal of the Teaching Staff:**

The appraisal for teaching staff is as per UGC-Career Advancement Scheme guidelines. The selection committee appointed by the Principal along with IQAC reviews and recommends further for promotion.

**Appraisal of the Non-teaching Staff:**



For the non-teaching staff, a confidential self-appraisal report is prepared by the principal and entered into the service book. The TICs evaluate the performance of the laboratory staff through a confidential, self-appraisal form. Financial upgradations of staff is governed by Modified Assured Career Progression Scheme.

### 6.3.1: Welfare measures and a performance appraisal system for teaching and non-teaching staff.

#### Welfare Measures

- Staff Quarters
- Children Education Allowance
- Study Leave
- Paternity Leave
- Child Care Leave
- Gratuity
- World University Service
- Medical Reimbursement
- Medical cards
- Provident Fund Scheme
- Provident Fund Loan Facility
- New Pension Scheme
- Employment offered on compassionate grounds
- Ward Quota

#### Welfare Measures

#### Promotions

#### Promotions Teaching and Non-Teaching Staff

- Promotions Teaching Staff (Career Advancement scheme)
- Promotions Non-Teaching Staff
- Promotions Non-Teaching Staff (Modified Assured Career Progression scheme)

#### Support Facilities and welfare Activities

#### Support Facilities

ICT, Canteen, Library  
Residential complex, Covid Care, Facility for disabled, Gymnasium and sports

#### Welfare Activities

Health Camp, Cardiac talk, Eye Donation session, Cancer Awareness, IPR, Cancer awareness

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 6.3.2 Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 2.22

#### 6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	4	1	4	0

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years

**Response:** 26.84

#### 6.3.3.1 Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
76	67	23	19	26

#### 6.3.3.2 Number of non-teaching staff year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
74	74	77	78	78

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)

**Response:**

For efficient and optimum utilization of funds to procure goods/services, the Central Purchase Committee (CPC) follows the General Financial Rules (GFR-2017). All purchases are done through Government e-Marketplace (GeM). If any item is unavailable on GeM then the GFR -2017 procedure for procurement is followed. The bills are processed by the concerned department-in-charge for payment through the CPC

convener, Bursar and Principal.

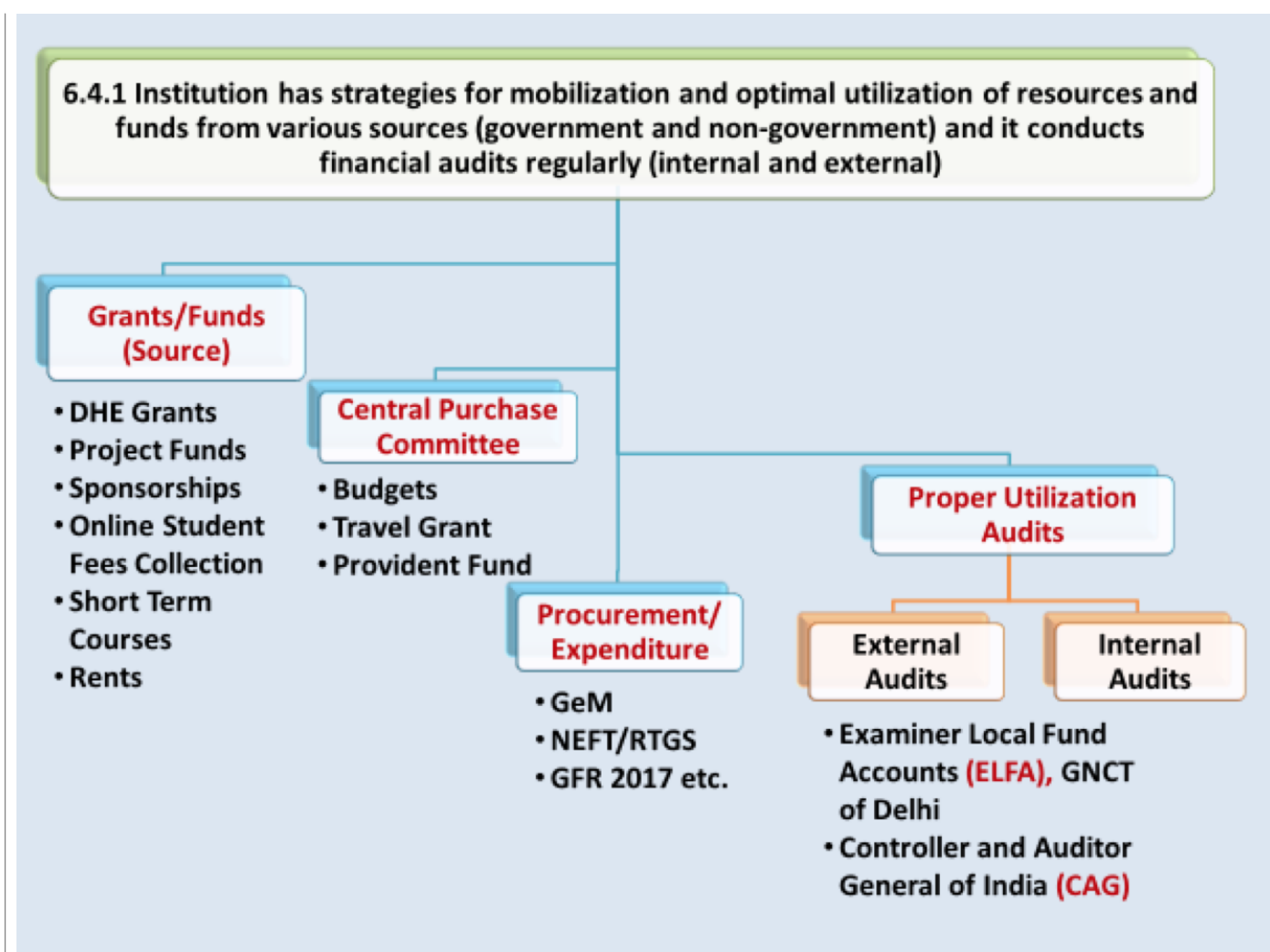
The college is 100% funded by the Government of NCT (GNCT), Delhi. All the in-charges of concerned departments submit a budget at the beginning of each financial year to the accounts section of the college and the same is approved after a detailed discussion in the Finance Committee and is then submitted to the Directorate of Higher Education, GNCT, Delhi. The government releases the funds in the form of “Grant-in-Aid (GIA) salary”, “other than salary” and “capital assets” as per the budget. Salaries etc. are released via NEFT/RTGS post thorough checking and scrutiny and approval from the Principal. The funds other than salary and capital assets are disbursed and allocated by CPC to different departments, sections and certain committees for various non-recurring and recurring expenses.

Department of Biotechnology (DBT), Ministry of Science and Technology, GoI has awarded Star College Status to the college. The recurring and non-recurring funds received under the scheme are also utilized through the CPC of the college. The funds received from the government, autonomous bodies and sponsorships from private organizations for organizing national/international conferences/workshops departmental and college festivals etc. are utilized through the CPC of the college as per GFR-2017 norms.

All transactions are accepted via NEFT/RTGS only. The college has a dedicated students’ fees /other miscellaneous fees portal provided by the State Bank of India. Tenders for hiring services/purchases are floated through GeM periodically. The college's Provident Fund Committee monitors the investment of provident funds in fixed deposits of nationalized banks.

To ensure transparency, a three-tier auditing system for the college accounts is adopted:

- Firstly, the college conducts an internal audit of the college’s book of accounts for each financial year. A chartered accountant registered with the Indian Institute of Chartered Accountants of India is appointed with the approval of the competent authority. The chartered accountant meticulously audits the finance-related documents for all the transactions including balance sheet, income and expenditure, receipt and payment account.
- The audited balance sheets of the college/Student Fund/Provident Fund & New Pension Scheme and audited utilization certificate of GIA are then submitted to the Directorate of Higher Education, GNCT of Delhi. After completion of the internal audit of the college, the external annual audit of college accounts is conducted by Examiner Local Fund Accounts (ELFA), GNCT of Delhi and by Controller and Auditor General of India(CAG).
- The last internal audit of the book of accounts was done for the financial year 2021-22 and up to 2020-21 by the GNCT of Delhi and till 2020 by the CAG. The audited balance sheets and reports of each financial year are available on the college website.



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 6.5 Internal Quality Assurance System

**6.5.1 Internal Quality Assurance Cell (IQAC)** has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

### Response:

There are several initiatives undertaken by IQAC on both a short and long-term basis. The two major initiatives included are as follows:

**Mentorship and Counselling System:** This system was constituted after receiving the UGC circular dated January 2016. The idea was to create a safe space for students to share their academic and personal

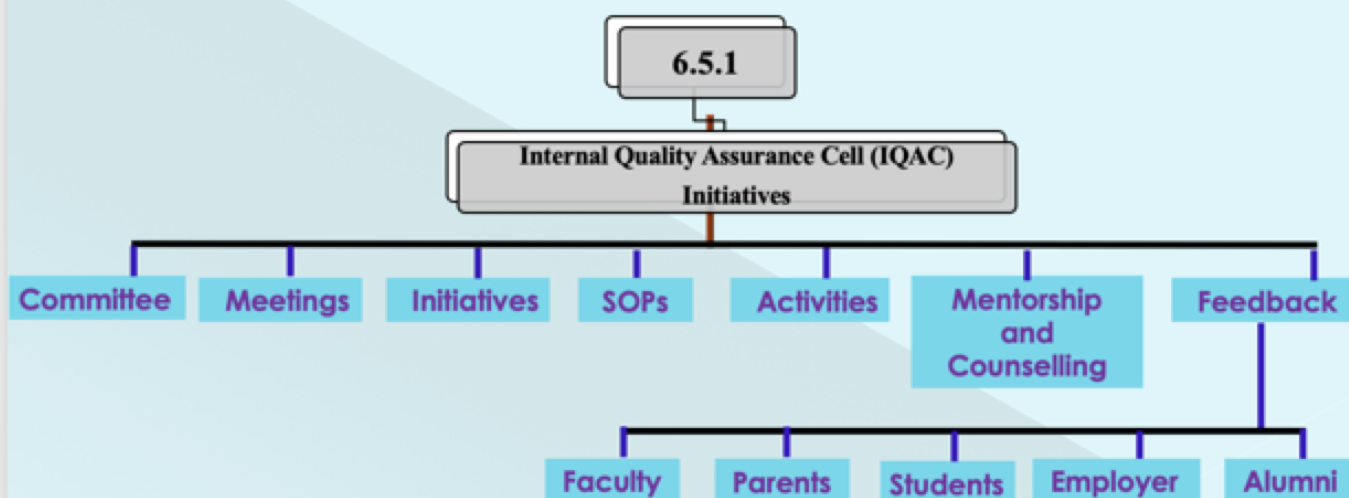
concerns outside the classroom as well. The mentoring system provided a platform for mentees to approach mentors for matters related to academics, college, interpersonal concerns, issues related to mental health and career advice etc. The system has helped students to find an anchor and counsel in teachers besides discipline-related concerns. Especially during the pandemic, the mentors have been a huge support to help the mentees make the transition to online learning and helped ease the anxiety and stress that the pandemic brought. The detailed Standard Operating Procedure (SOP) for the mentoring and counselling system is available on the college website.

**Feedback Mechanism:** The IQAC has put into practice a system to gather feedback from students and parents. Feedback is sought regarding parameters such as infrastructural facilities, curriculum delivery, pedagogy, discipline, staff support, etc. Feedback is also taken from alumni, teachers and employers as well.

There are specific questionnaires designed for students, faculty, alumni, employers and parents to seek feedback on various concerns related to academics and infrastructure. The feedback from students is collected at the end of each semester and assessed by the IQAC. Concerns, if any, shared through the feedback are looked into and necessary action is initiated. Similarly, regular feedback is requested from the faculty with regard to their personal development along with the handling of academic and administrative affairs. Lastly, parents can submit their feedback throughout the year via a platform available on the college's website. Their inputs, and apprehensions, if any, are looked into and all efforts are made to implement and resolve them satisfactorily.

The feedback mechanism functions as the catalyst for the upgradation of teaching-learning processes, upgradation of infrastructure, facilities and skill enhancement along with professional development of the staff and capacity building and enrichment of the students. The feedback mechanism is a constructive self-assessment procedure integral to fostering and enhancing academic excellence and institutional development.

**6.5.1. Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities**



File Description		Document
Upload Additional information		<a href="#">View Document</a>
Provide Link for Additional information		<a href="#">View Document</a>

#### 6.5.2 Quality assurance initiatives of the institution include:

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
- 2.Collaborative quality initiatives with other institution(s)/ membership of international networks
- 3.Participation in NIRF
- 4.any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA, ISO Certification etc

**Response:** A. All of the above

File Description		Document
Upload supporting document		<a href="#">View Document</a>
Institutional data in the prescribed format		<a href="#">View Document</a>

## Criterion 7 - Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

#### 7.1.1 Measures initiated by the Institution for the promotion of gender equity and Institutional initiatives to celebrate / organize national and international commemorative days, events and festivals during the last five years

##### Response:

The college promotes gender equity and ensures respect and recognition of all genders through several initiatives. Different committees are constituted to work towards this objective. The college provides a safe and secure environment and CCTV cameras are installed in campus. College has restricted entry and a lady guard is stationed on campus. There is also a police booth near college. Facilities like common room for girls and toilets for all genders are available. Sanitary pad vending machines are installed in the ladies' washrooms. As a mark of respect for all and to promote inclusivity, a provision for the recognition of transgenders is available on BEAMS (BCAS Event Automation and Management System). The college responds proactively to University of Delhi and other notifications, faculty also attends programs addressing gender issues.

During the last five years, Gender Sensitization Committee has regularly organized activities sensitizing towards gender issues and selected Gender Champions to promote an empowering environment. Women Development Cell has organized events directed towards the safety, gender equity and well-being of women. The Students Counselling & Mentoring system has helped counsel students regarding issues and concerns. During COVID, counselling was offered by the IQAC Coordinator and other college faculty. Duly constituted Internal Complaint Committee looks into cases related to sexual harassment. Proctorial and Anti-Ragging committee addresses matters related to safety of students and staff. Discipline guidelines are published in college prospectus. Gender equity promotion programs, self-defence workshops and activities for well-being have been regularly conducted for students and other stakeholders by committees, cells and departments of the college.

The college works towards instilling patriotism, promoting national integrity and gender equity, creating awareness and motivating young minds towards positive action for betterment of society. It regularly celebrates/organizes commemorative days, events and festivals with the active participation of students and staff. College proactively responds to university/ other organization notification(s) and organizes several events.

Independence Day and Republic Day are celebrated each year with great pride and reverence. Several activities were organized under the umbrella of "Azadi Ka Amrit Mahotsav". Festivals such as Diwali, Holi & Basant Panchami are also celebrated with great enthusiasm. Rashtriya Ekta Diwas, Hindi Pakhwada, NSS Day were celebrated to instil unity and respect for nation. Birth anniversaries of Dr Kalam, Pt. Deendayal Upadhyaya, Sri Aurobindo, Gandhi Jayanti and National Youth Day are celebrated to inspire the youth. Awareness towards environmental concerns was created through Ozone Day and emphasis on preservation of environment and its resources laid by celebrating World Earth Day, World Environment Day etc. World No-Tobacco day, Cancer Awareness Month, World Diabetes Day, Brain Awareness Day and World Mental Health Day were celebrated to generate awareness and address these issues. International Day of Yoga was celebrated to emphasise its benefits for overall well-being. Events were organized on National Science Day, World Food Safety Day, International Matribhasha Diwas,

International Women's Day and International Day of Science and Peace. Gender related issues were discussed during Sexual Abuse Awareness Month. The college organized activities celebrating other commemorative days and events as well.

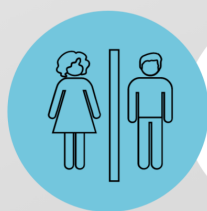


## GENDER EQUITY FACILITIES & INITIATIVES



### Safety and Security

- CCTV Cameras
- Restricted Entries
- Lady Guard



### Dedicated Facilities

- Common Room for Girls
- Sanitary Pad Vending Machine
- Washrooms for Transgenders



### Dedicated Bodies

- Women Development Cells
- Gender Sensitization Committees
- Internal Complaints Committee
- Proctorial and Anti-Ragging



### Dedicated Programs

- Self Defense Program
- Gender Equity Promotion Programs
- Women Health and Related Programs
- Student Counselling and Mentorship Programs



### Faculty Training

- ICC workshop
- Training Programs on Gender related issues

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 7.1.2 The Institution has facilities and initiatives for

1. Alternate sources of energy and energy conservation measures
2. Management of the various types of degradable and nondegradable waste
3. Water conservation
4. Green campus initiatives
5. Disabled-friendly, barrier free environment

**Response:** A. 4 or All of the above

File Description	Document
Upload supporting document	<a href="#">View Document</a>

### 7.1.3 Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

1. Green audit / Environment audit
2. Energy audit
3. Clean and green campus initiatives
4. Beyond the campus environmental promotion activities

**Response:** A. All of the above

File Description	Document
Upload supporting document	<a href="#">View Document</a>

### 7.1.4 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic diversity and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)

**Response:**

India is home to people of various backgrounds viz., cultural, social, economic, linguistic, and ethnic diversities governed and guided by the Constitution irrespective of caste, religion, race and sex. The college ensures applicability of the fundamental rights mentioned in the Constitution of India through its effective administrative processes and initiatives. The students and staff from diverse linguistic, cultural, socio economic and regional background are provided an inclusive, accessible and equitable environment.

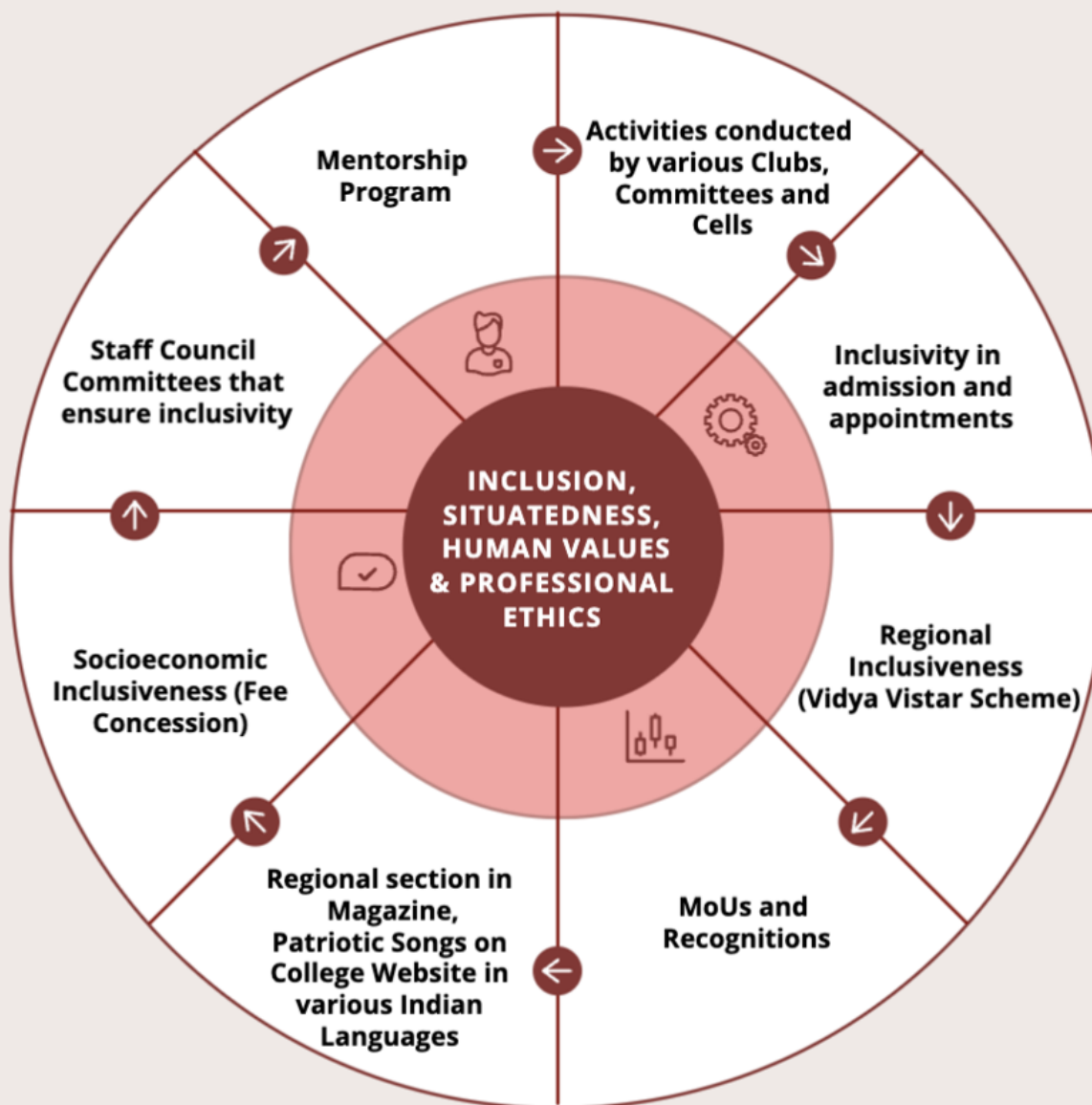
Some initiatives taken by college to ensure inclusion of all are:

- The college strictly follows the reservation policies laid out by the Government of India for student admissions and staff appointments.
- Fee concession is provided to students each year. During pandemic, college has also taken an initiative to financially support students who lost their parent due to COVID.
- Mentor-mentee meetings are held regularly wherein problems shared by students are resolved.
- The college magazine encourages poetry and writings in regional languages and regional art forms and the website has patriotic songs in various Indian languages. Events like 'Hindi Diwas-Pakhwara', 'Antarrashtriya Matribhasha Divas', 'Folk songs competition' etc. further promote linguistic and regional diversity.
- Equal Opportunity Cell, SC-ST Cell, Anti Discriminatory Cell, Special Category Admission Enabling committee and North East Cell of the college help ensure inclusiveness.
- 'Sikkim Week Celebration', 'North East Food Recipe Making Competition' etc., organised by North East Cell, promote the rich cultural diversity of north east states of India.
- Gender equity and health related events are organised.
- The college has collaborated with two colleges of Arunachal Pradesh under Vidya Vistar scheme of University of Delhi. The scheme allows expertise, knowledge and experience of the faculty members, library resources and other academic facilities to be shared with partner colleges.
- Music, dance competitions and other events create awareness and respect for all regions, languages and cultural practices.

College also conducts various programs to increase awareness and sensitize students and staff regarding constitutional values, rights, duties and responsibilities so as to equip them with qualities that help them become good citizens. Some initiatives taken are:

- The Independence Day and Republic Day are celebrated to instil respect for democratic values of the nation.
- Constitution Day celebration marks significance of the constitutional values.
- Voter's Awareness workshop, Voter ID camp etc. were organised to make students understand the electoral process and their right and duty to vote. Vigilance awareness week was celebrated and Integrity Pledge on the theme 'Satark Bharat, Samriddh Bharat' was taken by staff of the college.
- A webinar on Social Equality, Social Justice and National Development was conducted to create awareness about facilities available for SC/ST/OBC/EWS and other students.
- To instil the sense of gratitude towards our national heroes and for remembering their contribution, days like 'Rashtriya Ekta Diwas' are celebrated. Programs on Articles 370 and 35A have also been organized in the college.
- Programs related to Covid and ethics were conducted.
- Swachta Pakhwada, plantation drives, Amrit Sarovar Punarjivan campaign and other activities undertaken by NSS and Eco Club promote values of community service and sensitize students towards environment issues

## INCLUSIVITY INITIATIVES



File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 7.2 Best Practices

### 7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

#### Response:

#### First Best Practice of the College

**Title of the Practice:** 'Nurturing undergraduate students to achieve their futuristic goals'.

**Objective of the Practice:** To facilitate the integral development of students through imparting quality education to excel in life.

**The Context:** The college, in its motto, “*Gyan-Vigyan-Sahitam*”, envisions the holistic development of students. The objective is to prepare citizens for tomorrow who excel in their field whilst upholding high values and contributing positively to society.

**The Practice:** College provides a productive learning environment beyond conventional classroom teaching with a strong emphasis on nurturing and inculcating:

- Academic talent
- Well-being and life skills
- Social competency and
- Leadership qualities

**Promoting Academic Talent:** College helps students achieve academic excellence, pursue higher education and make informed career decisions. Remedial and slow learner classes, preparatory classes for competitive exams and short-term courses are conducted. Several students gain research experience. Visits to industries and research facilities are undertaken and students are encouraged to take up internships, fieldwork and work on projects. Career orientation seminars and alumni interactions further help them achieve their goals.

**Nurturing Well-being and Imparting Life Skills:** The college organizes various programs to nurture mind, body and spirit. Yoga sessions, sports events, nutritional & health awareness and value-inculcating programs are routinely organized. Celebration of National Youth Day and lectures on eminent personalities like Swami Vivekananda, Mahatma Gandhi and Sri Aurobindo are conducted by the college to inspire and inculcate strong nationalistic values.

**Enabling Social Competence:** For creating responsible members of society, Swachhta Pakhwada, a voter-verification campaign and a sanitary pad distribution drive etc. were some of the initiatives carried out by the college for the students. During the pandemic, several students volunteered with NGOs/ worked independently to aid the affected. Sensitizing the students towards social causes such as the need for sustainable development of our resources, a virtual nature walk at Aravalli Biodiversity Park, celebration of International Ozone Day, a workshop on paper recycling, ‘Nadi ko Jano’ etc. were organized.

**Inculcating Leadership skills:** ‘Students of today are leaders of tomorrow’. Leadership skills among students are inculcated by providing various opportunities such as the Bhaskaracharya Students

Association (the students' council), class representatives and office bearers of clubs, cells, committees and societies.

#### **Evidence of Success:**

- University medals awarded to students.
- Publications in journals, conference proceedings and poster presentations by students.
- A significant percentage of college students progress to higher education or get placed in their desired fields.
- Student inventors along with faculty in a granted patent.
- Improved NIRF Ranking.
- The spectrum of seminars/webinars, short-term courses, workshops and outreach programs are organized.
- Students are office bearers of various clubs, cells, committees and departmental societies, showcasing their leadership qualities.

#### **Problems Encountered and Resources Required:**

- Additional infrastructure is required to provide better facilities-
- The pandemic posed a challenge, whereby students living in remote locations with limited access to high-speed internet were particularly impacted.
- The paucity of funds constrained initiatives.

#### **Second Best Practice of the college**

**Title of the Practice:** SEVA: *Societal and Environmental Value Additions*

**Objective of the Practice:** To contribute towards the betterment of society and sensitize towards environmental challenges thus, promoting an action-oriented humane approach and value inculcation among students and stakeholders.

**The Context:** The college firmly believes in the betterment of society and sustainable environmental measures through policies, practices and active participation. The college undertakes and participates in several outreach initiatives that foster and promote self-improvement, inclusivity and character-building. Such initiatives also encourage a sense of '*Sarvjan Hitay Sarvajan Sukhaye*' amongst all.

**The Practice:** Various initiatives and activities aimed at providing benefits to the community and emphasizing need for a sustainable world were carried out by the college. Some are mentioned below:

#### **Initiatives Boosting Societal Values**

##### **Academic and Scientific Aptitude Initiatives:**

- Vidya Vistar Scheme- An academic collaboration with two colleges of Arunachal Pradesh.
- A national conference on 'Clean and Green Energy'.
- One-day DBT-sponsored interaction programme, "Science Adda".

- Workshop for school students of rural areas to foster scientific temperament.
- School outreach activity on 'Internet of Things'

**'We Care':** Spirit of giving back selflessly, promoting equity and instilling a strong sense of 'not me, but you', was the underlying intent of many college initiatives.

#### ***NSS initiatives:***

- Clothes distribution drive.
- Celebration of Diwali at the adopted village.

#### ***Other initiatives:***

- Divya Kaushal-2019, a National Job Fair and Ability Expo for Divyangjan by NSDC at college premises.
- Celebrating World Rose Day with cancer patients.
- Divyang Saarthi initiative.

#### **Nutrition and Health-related Initiatives:**

- Safe and Nutritious Food at School Program.
- Rapid-Domestic Food Adulteration Test workshop.
- Physical well-being: Yoga sessions.
- Mental well-being: Counseling services during Covid-19 pandemic.

#### **Other Training Initiatives:**

- PFMS – EAT (Public Financial Management System -Expenditure, Advance and Transfer) module training program.
- Self-defense outreach programs.
- Inter-college training program for canteen and hostel staff of University of Delhi.
- Training for women on food preservation.

#### **Initiatives that Boost Environmental Values**

##### **Eco Club initiatives:**

- Environmental awareness campaigns.
- Plastic collection drive.
- Pond revival activity at Chhawala village, New Delhi.
- Adopting a school to create environment protection awareness.

##### **Other Environmental Outreach Initiatives:**

- Environmental Project and Awareness Program (EPAP).
- Project Parivartan.

#### **Evidence of Success:**

- More than 1 lakh students covered under SNF at school program.
- Children from weaker sections of society, women, school students and trained professionals benefitted from initiatives.
- Efforts of college were widely recognized by various media platforms highlighting the positive impact of such initiatives on society.
- Students in remote locations of Arunachal Pradesh benefited from collaboration under Vidya Vistar Scheme through access to resources of University of Delhi.
- Participating students were apprised of environmental challenges, found opportunities to interact and apply their skills for benefit of the society gaining invaluable exposure to the workings of the community.
- Counselling during the pandemic contributed to aiding the emotional and mental well-being of people in times of crisis.

#### Problems Encountered and Resources Required:

- Paucity of funds restricted efforts to organize programs on a larger scale.
- Onset of the pandemic and subsequent lockdown impacted the mobility of participating volunteers and participation of intended beneficiaries affecting outreach programs.
- Despite challenges, all stakeholders worked together with enthusiasm to give their best.

Link : <https://bcas.du.ac.in/iqac/best-practices/>

File Description	Document
Best practices as hosted on the Institutional website	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

## 7.3 Institutional Distinctiveness

### 7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

#### Response:

#### I2BB: Integrated College Management System to BRAHMA and BEAMS

Digitization and automation of the college data and processes using in-house built and free-of-cost applications **BCAS Resource Automation, Handling and Management Application (BRAHMA)** and **BCAS Event Automation and Management System (BEAMS)** is the distinctive feature of the college. This is the first of its kind, an indigenously developed system at the University of Delhi. With the introduction of these sophisticated applications, several academic and administrative processes are streamlined.

In 2017, the college migrated recordkeeping and various teaching and administrative processes from



manual to the digital platform. To achieve this, a free-of-cost, efficient and user-friendly “Integrated College Management System (ICMS)” was developed by a college faculty. ICMS automated teaching and administration data handling, created central databases and reduced the need to manually enter and check data. Timetable, student attendance, internal assessment, GE forms, parents/student feedback form and mentoring system were included in it.

The college further worked on improving and upgrading ICMS in terms of efficiency and capability. Many new features were added and a new application for event automation was developed. Cloud-based applications, BRAHMA and BEAMS, were developed to handle and process academic and administrative data generated on a daily basis. BRAHMA was formally launched by the Honourable Vice Chancellor, University of Delhi, Prof. P. C. Joshi on 15 August 2021.

**BRAHMA** includes the following modules:

#### **Paper and Teacher Database:**

This is a centralized paper-teacher database with real-time updates.

#### **Daily Attendance:**

Daily attendance of the students can be marked through a mobile/desktop application.

#### **Monthly Attendance:**

This feature enables faculty to enter students’ monthly attendance, combine attendance from multiple teachers for a paper and calculate the percentage of attendance. Attendance can be accessed by students on the college website in real-time.

#### **Internal Assessment (IA) Management:**

This enables faculty to enter assignment/project marks as applicable. It automatically generates the final formatted Internal Assessment including attendance marks in a downloadable pdf. IA is available to students on the college website in real-time.

#### **Workload Management:**

This provides a customized interface to prepare for the college workload. Information viz., semester-wise papers and details of designated teachers, all papers of a particular teacher, workload given to/received from other departments and total classes for a teacher and department is available in this module.

#### **Time Table (TT) Management and Automation:**

This enables the user to prepare and manage department and college TT. Drop-down menus are used to enter the TT data. Once submitted, individual teacher’s and room TT are automatically generated and uploaded on the college website. It also shows the availability/occupancy of different rooms of the college in real time for the ease of assigning rooms. It checks for any mismatch between TT and workload and notifies the same to the concerned faculty. It further prepares TT in a single-page printable and downloadable pdf format.

**Student Feedback Query:**

Faculty can both view and mail their feedback submitted by the students.

**Mentorship Data Management:**

Mentors submit reports through this module. It displays a summary of sessions held and attended. Details of mentor-mentee and submission status are accessible to the convener in real-time.

**Budget Proposal:**

Concerned in-charges submit respective budget proposals through this module. The system automatically calculates the total amount under each head, and automatically compiles and presents the total college budget.

**Generic Elective (GE) Data Management:**

This module collects GE options from students each semester. It automatically sorts and allots students to the subject based on their merit and preferences in real time.

**BEAMS** is a cloud-based application for participant registration and feedback for various workshops/seminars organized by the college. It automatically sorts data event-wise and makes it available for analysis. It has the following modules:

**Registration:**

The participant can register online and an email is automatically sent with details such as event brochure, schedule, webinar link, feedback link etc.

**Feedback:**

Participants can provide feedback after the successful completion of the event. Provision is also available to provide feedback for every resource person.

**Attendance:**

The attendance of the registered participants can be sorted by the organizer.

**Certification:**

An e-certificate template is made available in this module. Organizers can customize it as per their requirements. Once the certification is enabled, participants can generate their e-certificate automatically.

**Communication:**

This further enables organizers to quickly email information/e-certificate to all/selected participants with a

single click, without the need to manually enter email ids.

### **Analytics:**

Lastly, it provides an event summary, which includes the number of registrations, attendees, feedback received, average feedback in different categories, and summary and analysis of feedback to name a few.

**BRAHMA** and **BEAMS** have benefitted the college in myriad ways:

**Ease of Access**– User-friendly and readily accessible across various platforms.

**Efficiency**– The system automates routine processes and makes it convenient and efficient for the college to collect and manage data. It has significantly reduced time and effort.

**Integrated, Real-time Information**– All data is housed in a single database and accessible to all stakeholders in real-time.

**Security**– The system improves the accuracy, consistency and security of data. Restrictions to data can also be enhanced.

**Accuracy and Reporting**- The software has mechanisms to allow data entry only within predefined parameters. It automatically checks and reports for errors in the data at the entry point thus reducing the need for manual checking for errors. The improved reporting capabilities help users be notified of concerns, if any, across all modules.

**Modular Platform**- These applications are fully modular which makes it easier to add new modules as per requirement.

**Zero-cost Applications**- The applications are built in-house by college faculty, hence free of cost. The cost of similar applications procured by other colleges of Delhi University runs in lakhs of rupees.

**E-initiative**- These applications have eliminated the requirement of recordkeeping in paper format, hence contributing significantly to reducing the carbon footprints of the college.

**BRAHMA** and **BEAMS** are an integral part of the teaching, learning and administrative processes of college, making them effective and robust.

Link : <https://bcas.du.ac.in/iqac/institutional-distinctiveness/>

File Description	Document
Appropriate web in the Institutional website	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

## 5. CONCLUSION

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### Additional Information :

The main objective of the college is to impart curricular, co-curricular and extra-curricular education and training to its students. It helps to develop and disseminate newer technologies, knowledge and skills through multifaceted initiatives.

College has excelled in various disciplines as evident from the accolades received. Some of them are highlighted below:

- 25th Rank in NIRF 2022 by Ministry of Education, Government of India.
- Star College Status in 2017 awarded by Department of Biotechnology (DBT).
- Certified as Eat Right Campus as per the guidelines of Food Safety and Standards Authority of India.
- Felicitated by Vision Divyang Foundation for its continuous support and welfare of the Divyangjan Community.
- Music Club felicitated at International summit on women in STEM organized by DBT.
- A faculty member felicitated with Indian National Science Academy Teacher Award.
- Felicitated by Gandhi Bhavan, University of Delhi for inculcating Gandhian values.

College has successfully executed the promotions of its faculty, with many faculty promoted to Professor, Associate Professor and higher grades of Assistant Professor.

### VALUES

#### Seeking Truth is Knowledge

Vibrant campus of the college echoes the motto '*Gyan Vigyan Sahitam*'. The academic excellence and integrity is strongly embedded in the curriculum. The academic and outreach programs of the college train the students to 'Seek the Truth' and then 'believe it'.

#### From budding to Blossoming

College emphasises on curricular and co-curricular programmes in order to groom students to blossom into responsible citizens with a growth mindset, team spirit and leadership potential.

#### Towards Equality and Empowerment

Equity and social justice are strongly promoted and followed. The college is conscious of its societal responsibilities and works towards developing inclusive environment. Students are nurtured to become value-oriented and sensitive to the needs of the society.

The students are empowered through holistic education allowing them to realize and develop creative and innovative potentials making them future ready.

#### Life Long Learning

All the stakeholders are working in tandem to make college an eminent place of learning. The pursuit of excellence encouraged at college rests on the positive belief that every student can blossom in a conducive environment.

## **Concluding Remarks :**

Bhaskaracharya College of Applied Sciences provides an egalitarian platform for interdisciplinary and integrative education designed to serve the society and bring together traditional and modern approaches to solve the problems of today.

Since its inception, the college has been known for its excellence in academics with several accolades and awards being received by its students, faculty members and also their alumni. Given the trajectory the college has followed during the last 25 years of its existence, there is every possibility for this young college to achieve even greater heights in the coming years. The rise of this college in last few years with outstanding and dynamic faculty, coveted administration and successful student body is a measure of its tenacity and success. The college has distinguished itself in research through its publications and citations. There is no doubt, that there is much more to be done in research and innovation. College is confident that with its strong foundation, international outlook and modern scientific integrative perspective, it will be considered as one of the leading colleges.

During the assessment period alone, three faculty members have been elevated at prominent positions at the University of Delhi and two faculty members have served as the Director of other leading Institutes. To wrap up, the college has taken best efforts to live up to the expectations of the society by offering quality academic programs in tune with demands of the society, undertaking scientific and action research in cutting edge areas apart from addressing the needs of the society through lab to land initiatives and outreach programs. College sincerely hopes that it will continue to enhance its contribution to the society and attain the higher status in the years to come. Bhaskaracharya College of Applied Sciences aims at empowering the students and rededicates itself to the cause of Nation, fostering global competencies with the view to promote equity, access and excellence.

## 6.ANNEXURE

### 1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																									
1.2.1	<b>Number of Add on /Certificate/Value added programs offered during the last five years</b>  Answer before DVV Verification : 37 Answer After DVV Verification :36																									
1.4.1	<b>Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website (Yes or No)</b>  Answer before DVV Verification : Yes Answer After DVV Verification: Yes																									
2.1.1	<b>Enrolment percentage</b>  2.1.1.1. <b>Number of students admitted year wise during last five years</b> Answer before DVV Verification: <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>545</td><td>451</td><td>456</td><td>480</td><td>512</td></tr></table>  Answer After DVV Verification : <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>545</td><td>451</td><td>456</td><td>480</td><td>512</td></tr></table> 2.1.1.2. <b>Number of sanctioned seats year wise during last five years</b> Answer before DVV Verification: <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr></table>	2021-22	2020-21	2019-20	2018-19	2017-18	545	451	456	480	512	2021-22	2020-21	2019-20	2018-19	2017-18	545	451	456	480	512	2021-22	2020-21	2019-20	2018-19	2017-18
2021-22	2020-21	2019-20	2018-19	2017-18																						
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2021-22	2020-21	2019-20	2018-19	2017-18																						
545	451	456	480	512																						
2021-22	2020-21	2019-20	2018-19	2017-18																						
2.1.2	<b>Percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (Exclusive of supernumerary seats)</b>  2.1.2.1. <i>Number of actual students admitted from the reserved categories year - wise during the last five years</i> Answer before DVV Verification: <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>270</td><td>211</td><td>219</td><td>230</td><td>229</td></tr></table>  Answer After DVV Verification : <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>270</td><td>211</td><td>219</td><td>230</td><td>229</td></tr></table> 2.1.2.2. <b>Number of seats earmarked for reserved category as per GOI/ State Govt rule year</b>	2021-22	2020-21	2019-20	2018-19	2017-18	270	211	219	230	229	2021-22	2020-21	2019-20	2018-19	2017-18	270	211	219	230	229					
2021-22	2020-21	2019-20	2018-19	2017-18																						
270	211	219	230	229																						
2021-22	2020-21	2019-20	2018-19	2017-18																						
270	211	219	230	229																						

**wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

2.4.2

**Percentage of full time teachers with NET/SET/SLET/ Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)****2.4.2.1. Number of full time teachers with NET/SET/SLET/Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
83	84	84	74	70

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
84	84	84	74	70

Remark : Revised values as per attached supporting documents

3.2.2

***Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years*****3.2.2.1. Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
28	51	21	16	9

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
27	46	19	14	08

3.3.2

**Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years****3.3.2.1. Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

18	30	38	26	7
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Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
17	30	36	24	7

Remark : Revised input as per supporting documents attached in response to clarification by DVV

**3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organised in collaboration with industry, community and NGOs) during the last five years**

**3.4.3.1. Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
45	14	32	34	23

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
45	14	32	34	23

**3.5.1 Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.**

Answer before DVV Verification : 132

Answer After DVV Verification :130

**4.3.2 Student – Computer ratio (Data for the latest completed academic year)**

**4.3.2.1. Number of computers available for students usage during the latest completed academic year:**

Answer before DVV Verification : 594

Answer after DVV Verification: 230

**5.1.3 Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years**

**5.1.3.1. Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years**

Answer before DVV Verification:



2021-22	2020-21	2019-20	2018-19	2017-18
1179	1304	1174	1029	431

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
1296	902	1271	521	113

5.1.4 **The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases**

1. Implementation of guidelines of statutory/regulatory bodies
2. Organisation wide awareness and undertakings on policies with zero tolerance
3. Mechanisms for submission of online/offline students' grievances
4. Timely redressal of the grievances through appropriate committees

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: A. All of the above

5.2.2 **Percentage of students qualifying in state/national/ international level examinations during the last five years (eg: JAM/CLAT/GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)**

5.2.2.1. *Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ Judicial Services/Public Prosecution services/All India Bar Exams/State government examinations) year wise during last five years*

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
131	105	73	94	113

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
130	105	73	94	113

5.2.2.2. **Number of students appearing in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT,GRE/ TOFEL/ Civil Services/ State government examinations) year wise during last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
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5.3.1 **Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years**

**5.3.1.1. Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
50	56	49	25	20

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
46	53	46	21	14

5.3.2

**Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)**

**5.3.2.1. Number of sports and cultural programs in which students of the Institution participated year wise during last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
95	75	83	57	55

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
74	60	69	46	45

6.3.2

**Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years**

**6.3.2.1. Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
0	5	1	4	0

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
0	4	1	4	0

6.3.3

**Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the**

**last five years**

**6.3.3.1. Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
88	69	25	19	26

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
76	67	23	19	26

**6.3.3.2. Number of non-teaching staff year wise during the last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

7.1.2

**The Institution has facilities and initiatives for**

1. Alternate sources of energy and energy conservation measures
2. Management of the various types of degradable and nondegradable waste
3. Water conservation
4. Green campus initiatives
5. Disabled-friendly, barrier free environment

Answer before DVV Verification : A. 4 or All of the above

Answer After DVV Verification: A. 4 or All of the above

7.1.3

**Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following**

1. Green audit / Environment audit
2. Energy audit
3. Clean and green campus initiatives
4. Beyond the campus environmental promotion activities

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: A. All of the above

## 2.Extended Profile Deviations

### Extended Profile Deviations

No Deviations





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