Institutional Development Plans

Based on NEP-2020 and UGC Guidelines

Navjivan Science College, Dahod

Introduction

Navjivan Science College was established on June 15th, 1973, by the late Shree Girdharlal C. Sheth, under the auspices of the Dahod Anaj Mahajan Sarvajanik Education Society. Since its inception, the college has been dedicated to uplifting tribal and rural communities through quality, value-driven scientific education. Initially affiliated with Gujarat University, the college has been proudly affiliated with Shri Govind Guru University, Godhra, since 2016. The institution is recognized under sections 2(f) and 12(B) of the UGC Act and operates as a grant-in-aid co-educational facility.

The college offers a comprehensive range of academic programs, currently running six undergraduate B.Sc. programs (Chemistry, Physics, Mathematics, Botany, Zoology, and Microbiology) and two specialized postgraduate M.Sc. programs (Organic Chemistry and Zoology). Navjivan Science College is deeply invested in fostering a robust research culture; currently, nine faculty members hold Ph.D. Guideship under the affiliating university, guiding 28 research scholars, while 23 students have already successfully earned their Ph.D. degrees.

Situated in a tribal and hilly geographical area, the sprawling 11.9-acre campus is designed to be an eco-friendly, green space equipped with rainwater harvesting, underground water storage, and dedicated botanical and herbal gardens. The institution has demonstrated exceptional commitment to educational access and equity, with 85-90% of its students belonging to the ST category and predominantly originating from rural backgrounds. The college also proudly holds the largest enrollment of female students in the university, maintaining an average female enrollment rate of 43.20% over the last seven years, supported by dedicated on-campus Girls' Hostel facilities.

Navjivan Science College continuously strives for academic and environmental excellence. It was accredited with a "B" grade by NAAC during its 3rd cycle in

2024 and secured a remarkable 4-Star GSIRF rating (CGPA 3.07) for the 2024-25 academic year, making it the only college in the university to achieve this ranking. The college has also successfully achieved the GOLD RANKING as a GREEN COLLEGE for its ecological neutrality and environmental responsibility. Supported by significant infrastructure grants, including Rs. 4 Crore from RUSA 2.0 and Rs. 5 Crore from PM-USHA, the college is poised for continuous modernization. Through disciplined education, extensive sports initiatives like the indigenous Mallakhamb, and dedicated community service, Navjivan Science College actively shapes intellectually sound and socially compassionate leaders for the nation.

Strength, Weakness, Opportunity, and Challenges (SWOC)

Institutional Strength

- The institution is the sole college under Shri Govind Guru University offering UG majors in Botany, Chemistry, Mathematics, Physics, Zoology, and Microbiology, alongside exclusive PG programs in Organic Chemistry and Zoology.
- The campus is green and eco-friendly, featuring rainwater harvesting, waste disposal mechanisms, and dedicated spaces for botanical and herbal gardens.
- The library is well-equipped with RFID, INFLIBNET facilities and relies on SOUL 3.0 software for management.
- The college provides outstanding sports facilities and has pioneered the introduction of indigenous sports like Pole Mallakhamb and Rope Mallakhamb in the state.

- The campus infrastructure is entirely disability-friendly, featuring barrier-free pathways for pedestrians.
- Essential student amenities are available, including a dedicated Girls' Hostel and canteen facilities.
- The curriculum emphasizes experiential learning through educational tours, industrial unit visits, laboratory exposure, and field trips.
- The institution operates two highly active NSS units that train students to address and resolve societal issues.
- Comprehensive safety is ensured through CCTV surveillance, strong security measures, and fire safety systems.

Institutional Weakness

- The college currently lacks undergraduate courses in the highly demanded field of Computer Science.
- Postgraduate programs are not available for core subjects like Botany, Mathematics, Physics, and Microbiology.
- The success rate of students passing state and national-level competitive examinations remains relatively low.
- There is a noticeable absence of student and faculty exchange programs with national or international institutes.
- Administrative and support staff shortages exist, with no regular Principal, Peon, or Watchman, and only two permanent office clerks available.
- The Librarian post has been vacant since 1998, making library maintenance and upgrades challenging with only ad-hoc staff.
- The lack of residential accommodation for teaching staff prevents students from accessing faculty benefits beyond regular college hours.

- The institution currently does not have an active NCC unit.

Institutional Opportunity

- The college has the potential to elevate its status to an Autonomous college.
- There are prime opportunities to cultivate collaborative research initiatives with industries and premier educational institutes.
- The institution can develop intensive, targeted training programs to prepare students for various competitive exams.
- The location offers a unique opportunity to actively participate in the socioeconomic growth and development of local tribal communities.
- The college can pioneer the study of traditional tribal knowledge by integrating it with modern scientific backgrounds.
- Strategic initiatives can be evolved to capitalize on modern trends in science and technology.
- More Add-On and skill development courses can be introduced to enhance student employability.
- The college has the potential to produce specialized goods for sportspersons, leveraging its sports excellence.
- The robust research environment offers the chance to produce high-quality research scholars.
- Significant infrastructure strengthening is possible as the institute is shortlisted for the PM-USHA component No. 3 grants.

Institutional Challenge

- Successfully implementing the mandates of NEP 2020 across all academic disciplines requires significant structural changes.

- Motivating talented students to pursue advanced research and attempt competitive exams remains a continuous hurdle.
- Keeping pace with the rapidly evolving global scenarios and technological advancements in higher education is demanding.
- Increasing the institutional placement ratio requires bridging the gap between academia and industry expectations.
- Preparing students from predominantly rural and tribal backgrounds to meet standards of global competence requires targeted interventions.

Institute Development Plan (IDP) FRAMEWORK - Major Components

A. Governance Enablers

Strategic Goals & Development Objectives	**Operationalization**
Maintain democratic governance and transparency across all college operations.	Ensure decentralization and participative management in administrative and academic affairs through active stakeholder involvement.
Strengthen e-governance policies and digital administration.	Implement ERP software across administrative, financial, admission, examination, and evaluation processes to improve efficiency and accessibility.

Strategic Goals & Development Objectives	Operationalization
Continually assess and improve institutional quality and standards.	Periodically review the contributions of the IQAC through regular SWOC analysis.
Prepare the institution for future national accreditation cycles.	Ensure regular data submission to the IQAC and rigorously prepare for the 3rd cycle of NAAC accreditation by 2030.

B. Financial Enablers and Funding Models

Strategic Goals & Development Objectives	Operationalization
Ensure efficient and transparent financial operations.	Conduct regular financial and quality audits to identify areas of improvement and rectify operational shortcomings.
Diversify resource mobilization to support institutional growth.	Explore revenue generation from self-financing courses, agricultural farming, and innovative student engagement initiatives.
Support the financial requirements of	Provide direct financial support to faculty members for attending professional

Strategic Goals & Development Objectives	Operationalization
continuous faculty enhancement.	development programs, workshops, and academic conferences.
Promote student financial independence during their studies.	Engage students in practical activities that provide "earn while learn" opportunities.

C. Academic Enablers

Strategic Goals & Development Objectives	Operationalization
Provide a holistic and multidisciplinary education in strict alignment with NEP 2020.	Devise specific mechanisms to integrate NEP 2020 recommendations into the university's curriculum and internal processes.
Expand academic offerings to cater to evolving market demands.	Introduce new undergraduate programs in BCA and Computer Science, and postgraduate programs in Mathematics, Physics, Life Science, and Microbiology.

Strategic Goals & Development Objectives	Operationalization
Establish Outcome-Based Education (OBE) as the core academic philosophy.	Determine and evaluate Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs) continuously.
Enhance effective curriculum delivery and digital learning.	Incorporate ICT tools actively in the teaching-learning process and motivate faculty to develop e-content for SWAYAM.
Foster cross-institutional academic collaborations.	Conduct organized student and faculty exchange programs to provide exposure to diverse academic cultures.

D. Research, Intellectual Property, and Supportive Enablers

Strategic Goals & Development Objectives	Operationalization
Cultivate a rigorous research culture among teachers and students.	Encourage critical thinking and support faculty in securing research projects from government and non-government funding schemes.
Facilitate innovation, start-ups, and intellectual property creation.	Formally constitute an IPR (Intellectual Property Rights) cell, an Incubation cell, and an Extension cell on campus.

Strategic Goals & Development Objectives	Operationalization
Promote the integration of traditional and modern knowledge systems.	Create a robust mechanism to promote the Indian Knowledge System among faculty and students.
Build formal bridges between the institution and the corporate sector.	Establish Memoranda of Understanding (MoUs) with industries and organizations for collaborative projects, apprenticeships, and quality initiatives.
Enhance academic writing and publication output.	Conduct targeted capacity-building programs on research methodology, publication ethics, and academic writing.

E. Human Resources Management Enablers

Strategic Goals & Development Objectives	Operationalization
Upgrade the pedagogical and professional quality of the teaching staff.	Conduct frequent professional development programs and implement a well-defined performance appraisal system.

Strategic Goals & Development Objectives	Operationalization
Ensure adequate staffing to maintain an optimal academic environment.	Propose and actively pursue the enhancement of the number of both teaching and non-teaching staff positions.
Empower faculty with modern evaluation and assessment techniques.	Organize capacity-building programs specifically on ICT integration, question paper setting, and advanced student evaluation methods.
Recognize and reward institutional excellence and dedication.	Introduce Annual Best Practice Awards for departments, teaching staff, and non-teaching staff to celebrate innovation and growth.

F. Enablers for Networking and Collaborations

Strategic Goals & Development Objectives	Operationalization
Bridge the gap between academic learning and practical industry requirements.	Initiate formal industry-academia linkages to secure apprenticeships, internships, and direct employment opportunities for students.

Strategic Goals & Development Objectives	Operationalization
Strengthen the relationship between the institution and its former students.	Ensure continuous and structured alumni engagement to support the overall performance and development of the college.
Enhance student career readiness and placement success.	Restructure the placement cell to actively investigate opportunities, run career readiness programs, and host placement camps.
Increase community engagement and social responsibility.	Organize outreach programs that sensitize students to emerging socio-economic issues within the surrounding tribal and rural areas.

G. Physical Enablers

Strategic Goals & Development Objectives	Operationalization
Provide a modern, well-maintained, and comprehensive physical infrastructure.	Renovate existing academic buildings, establish a gymnasium for students and staff, and enhance overall sports infrastructure.

Strategic Goals & Development Objectives	Operationalization
Guarantee equal access and inclusivity across the physical campus.	Maintain and continuously audit the campus to ensure a disability-friendly, barrier-free environment for all individuals.
Ensure a healthy, safe, and environmentally conscious campus atmosphere.	Strictly enforce a tobacco-free and plastic-free campus policy through a rigid compliance and fine mechanism.
Implement highly sustainable ecological and waste management practices.	Manage degradable waste via vermi-composting, link non-degradable waste to government-certified crushing units, and sustain rainwater harvesting projects.
Ensure continuous monitoring of environmental and social equity goals.	Conduct an annual green and energy audit, initiate a formal gender audit, and strengthen the Campus Beautification and Cleanliness Cell.

H. Digital Enablers

Strategic Goals & Development Objectives	Operationalization
Equip the campus with cutting-edge technological infrastructure.	Significantly increase and upgrade overall IT facilities to ensure highly effective teaching, learning, and administration.
Modernize learning resources and library access.	Upgrade the college library with the latest software and accelerate access to e-learning resources and expanded digital journal subscriptions.
Foster digital literacy and content creation capabilities.	Conduct specialized hands-on training programs for faculty regarding the development of high-quality e-content.
Maximize the effective utilization of available digital resources.	Hold capacity-building programs specifically aimed at improving the use and access of e-learning resources by both teachers and students.

Conclusion

The Development Perspective Plan sets a definitive course for Navjivan Science College to actualize its foundational vision of providing high-quality, value-based scientific education to the tribal and rural demographics of the Dahod district. By strategically aligning its objectives with the mandates of NEP-2020 and the stringent quality metrics of NAAC, the college aims to bridge the gap between traditional community knowledge and modern scientific inquiry.

Over the next five years, the institution will prioritize infrastructural expansion, digital integration, and the diversification of multidisciplinary programs. By establishing robust internal governance, enhancing career placement mechanisms, and championing ecological sustainability, Navjivan Science College is committed to shaping graduates who are not only intellectually and professionally competent but are also socially compassionate leaders equipped to drive meaningful change within their communities and the nation.