

Sarva Vidyalaya Kelvani Mandal, Kadi Sanchalit PRAMUKH SWAMI SCIENCE & H.D.PATEL ARTS COLLEGE, KADI

Re-Accredited with Grade 'A' by NAAC Third Cycle (CGPA 3.25)
"College with Potential for Excellence" Phase I & II (2010-2019) by UGC,

AAA Rank-1 by Govt. of Gujarat



PROGRAMME OUTCOMES (PO)

BACHELOR OF SCIENCE (B. Sc.) & MASTERS IN SCIENCE (M. Sc.)

Undergraduate and postgraduate programs in Biological and Physical Sciences aim to cultivate a scientific mindset in students while providing a comprehensive education. This will be achieved through the following learning outcomes:

- **PO-1: Knowledge** Demonstrate a strong grasp of fundamental concepts in Biological and Physical Sciences and their practical application. Students should be able to utilize this knowledge effectively in research, industrial settings, and everyday life.
- **PO-2: Problem analysis** / **solving, design and development of solutions**: Students will cultivate a critical mindset to investigate intricate scientific phenomena and problems. They will demonstrate the capacity to analyze complex research, evaluate methodologies, and conduct independent research, ensuring the reliability and validity of their findings within the Biological and Physical Sciences.
- **PO-3: Sensitive to environment sustainability issues:** Students will develop a keen awareness of environmental sustainability challenges. They will critically assess the potential benefits and drawbacks of scientific advancements on the environment and devise sustainable solutions to address environmental, public health, and agricultural issues.
- **PO-4: Ethics and Communication**: Students will uphold the highest ethical standards in experimental design, research planning, and communicating complex scientific concepts to both expert and lay audiences. They will effectively convey their original research findings through written, oral, and visual presentations in various forums.
- **PO-5: Individuality and Teamwork**: Demonstrate both independent and collaborative research, development, and investigative skills. Effectively execute project activities safely and efficiently within a team environment.
- **PO-6:** Competencies for Employment and Research: Develop a strong foundation in both technical proficiencies and interpersonal skills to prepare for diverse career paths. Graduates will be equipped for roles in research, industry, consulting, and education, or for advanced studies in doctoral programs.



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PROGRAMME OUTCOMES (PO)

BACHELOR OF ARTS (B. A.) & MASTERS IN ARTS (M. A.)

Undergraduate and postgraduate programs in Languages and History aim to cultivate a artistic as well as historical aptitude in students while providing a comprehensive education. This will be achieved through the following learning outcomes:

- **PO-1:** Knowledge By building a solid academic foundation and cultivating a global perspective, we empower students to tackle complex world challenges through rigorous, interdisciplinary exploration and research.
- **PO-2: Problem analysis / solving, Design and development of solutions**: Students will develop critical thinking skills, enabling them to acquire knowledge, ask probing questions, master essential abilities, and form well-reasoned conclusions.
- PO-3: **Sensitive to environment sustainability issues:** Environment sustainability Students are equipped with the skills and knowledge to implement effective environmental conservation and sustainability practices through real-world action.
- **PO-4: Ethics and Communication:** Students will develop the ability to identify and reflect upon ethical principles and personal values in the context of their academic pursuits.
- **PO-5: Individuality and Teamwork**: Students will develop strong collaborative skills, enabling them to work effectively with diverse teams to achieve shared and individual objectives.
- **PO-6:** Competencies for employment and Research: Students will acquire the professional competencies and values essential for rapid career advancement. We empower them with the confidence and skills to assume leadership roles dedicated to societal progress.
- **PO-7: Cultural and Global engagements** Students will develop the ability to connect local and global contexts by integrating diverse perspectives.
- **PO-8:** Community engagement:— Students will be equipped to share their unique talents, advocate for justice, and effectively communicate solutions to address the needs of marginalized and impoverished communities.



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PROGRAMME OUTCOMES (PO)

BACHELOR OF VOCATION STUDY (B. Voc.)

Undergraduate and postgraduate programs in Vocation Study aim to cultivate a scientific mindset in students while providing a comprehensive education. This will be achieved through the following learning outcomes:

- 1. The students study **the basics of agronomy**, which includes understanding crop production and the soils in which they grow. This also encompasses meteorology, which deals with atmospheric processes and weather forecasting critical to agriculture.
- 2. Students delve into **soil science**, which covers soil as a natural resource. This includes soil formation, classification, and mapping, along with physical, chemical, biological, and fertility properties of soils, relating these properties to agricultural use and management.
- 3. The syllabus includes **botany of field crops**, providing scientific study of plant physiology, structure, genetics, ecology, distribution, classification, and economic importance. This knowledge enables effective plant growth and development management.
- 4. **Irrigation and water management studies** equip students to grow crops, maintain landscapes, and re-vegetate soils in dry areas or during low rainfall periods, ensuring efficient water use in agriculture.
- 5. **Food processing** studies teach students the transformation of agricultural products into food, from simple methods like grinding grain to complex industrial processes for convenience foods.
- 6. The study of **plant pathology** educates students on plant diseases caused by pathogens and environmental factors. Combined with plant disease management and pest management, this knowledge is crucial for maintaining plant health and productivity.
- 7. Students learn about **Kharif crops** (such as rice) cultivated during the monsoon season and **Rabi crops** (like wheat) sown in winter and harvested in spring. This knowledge is essential for managing seasonal crop cycles effectively.
- 8. **Weed management** is a critical part of the syllabus, teaching students to control unwanted vegetation, prevent the invasion of undesirable species, and eliminate poisonous plants, ensuring optimal crop growth and safety.



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- 9. **Horticulture studies** focus on the cultivation and care of plants, including flowers, fruits, and vegetables. This also includes principles of horticulture, organic farming, nursery management, and landscape gardening, promoting sustainable and aesthetically pleasing agricultural practices.
- 10. **Plant nutrition and sustainable agriculture** are vital for understanding and implementing eco-friendly farming practices. This includes rain fed agriculture, watershed management, and the use of renewable energy and green technology.
- 11. **Post-harvest management and value addition studies** help students learn to handle, process, and market agricultural produce, enhancing its value and extending its shelf life.
- 12. **Agri-business management and commercial enterprise** studies provide students with business acumen, teaching the economics of agriculture, marketing strategies, and management skills necessary for running successful agricultural businesses.
- 13. **Introductory animal husbandry** teaches the basics of livestock management, integrating it with crop farming for a holistic approach to agriculture.