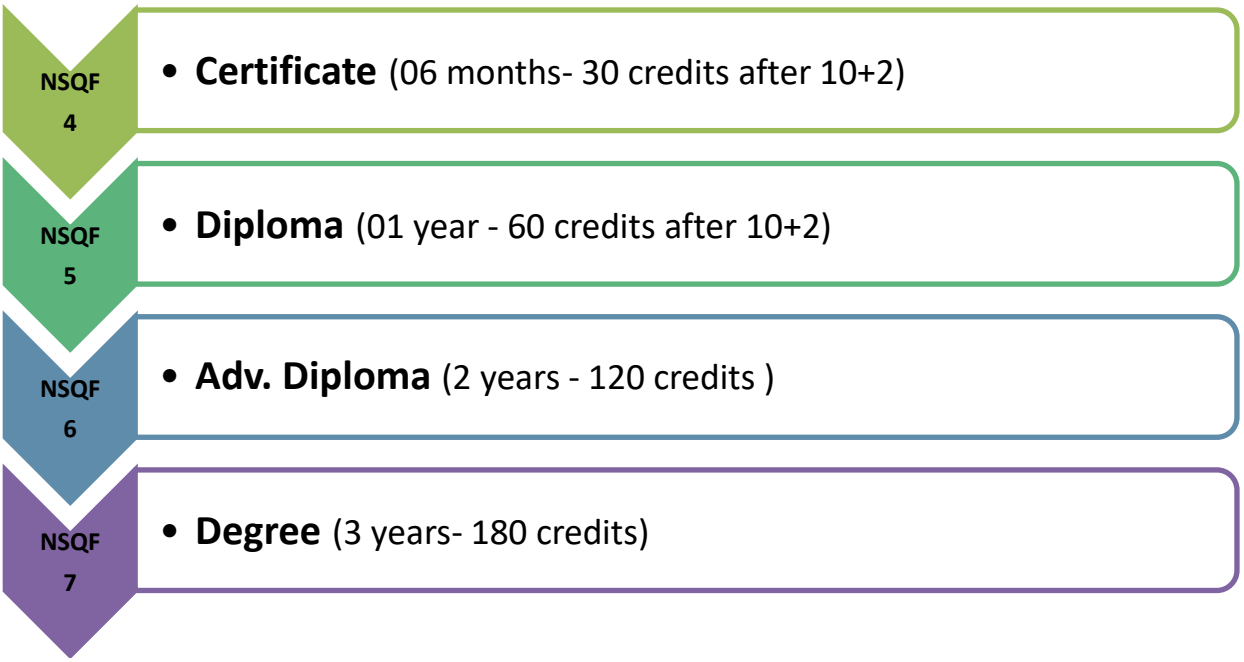
DEPARTMENT OF B.VOC
Food Processing and Preservation

B.Voc in Food Processing and Preservation

Programme Structure:

The three year B. Voc. Course (full time) has a specific feature of multi point entry and multi point exit provision. After completing one year of course, if any student desire to leave he/she will be awarded Diploma, subject to the condition of earning the required credit points. Similarly after completing the second year he/she will be awarded Advance Diploma and once the candidate completes the third year candidate will be awarded the degree of Bachelor of Vocational (Food Processing and Preservation). If any student desires to take admission to some other university, at any other stage i.e., on completing first year, he/she may take admission to second year in same branch. Similarly, on completing the second year, one can take admission to third year.



Programme Outcomes

The program outcomes are the skills and knowledge which the students have at each exit level/at the time of graduation. These outcomes are generic and are common to all exit levels mentioned in the program structure

- Students with vocational training can find work in several state and central government organizations, non-profit groups, and academic institutions and in private sectors as well.
- This program prepares students for specific types of occupations and frequently for direct entry into the market.
- After completion of this program students will have enough competences, to get benefit from market opportunities.
- This program would enable students to update their knowledge and professional skills for entering the work force executing income generating activities or occupying better positions

At each exit level of this program, students will be able to

- ✓ Apply knowledge of general education subjects and skill development subjects to the conceptualization of food processing technologies.
- ✓ Designing and formulation of new food products, on the basis of consumers demands, development of methodology/technologies of food processing, design that meet solutions needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
- ✓ Conduct and undertake investigations of problems of including design of processing technology for various type food, food analysis, food quality and safety aspects and interpretation of data in order to provide valid conclusions.

- ✓ Create, select and apply appropriate processing technology/techniques, resources, modern processing tools in order to improve the quality, safety and the shelf life fresh and process food.
- ✓ Communicate effectively on minimal processing activity and value addition to the farmers/producers/grower at large, such as being able to comprehend and write effective reports, design documentation and make effective presentations.
- ✓ Demonstrate understanding of the social, health, safety, legal and cultural issues and the consequent responsibilities relevant to Food processing.
- ✓ Understand and commit to professional ethics and responsibilities and norms/regulation for manufacturing of process food and its effects on health.
- ✓ Understand the impact of food processing technologies solutions in a societal context and demonstrate technical know-how and understanding of food safety, quality for sustainable development.

Programme Specific Outcomes.

- ❖ To impart knowledge in various aspects of Food Technology through Theory and Practical knowledge.
- ❖ To impart the knowledge about various compounds such as protein, carbohydrates, lipids amino acids, minerals, vitamins etc associated with the chemical compositions of food, their structures and functions.
- ❖ The students can gain knowledge about some very essential topic of nutrition and its metabolism balance inside the body.
- ❖ To make the students familiar with the technologies of food processing and preservation of plant and animal foods, cereals, pulses, oilseeds, fruits vegetables, spices, meat, fish, poultry, sea food, milk and dairy products.
- ❖ To gain concepts of food safety and quality managements, national and international, food laws and regulations as well as importance of food engineering and packaging in food industry.

- To gain knowledge about advanced technologies adapted in various food industries by physically visiting different food industries.
- To develop broader understandings on various aspects of management of waste coming from food Industries as well as from homes starting from its generation to processing with options for reuse and recycle, transport, and disposal practices so as to contribute towards sustainable development.
- To development students' understanding and communication skills through various assignments which will enable them to develop skills in writing and effective's interpersonal skills. Presentations in different topics enhances their confidence, ability to express themselves & presentation skills

Course Outcome

Year	Course Name	Course Outcome
FY. (Sem-I)	**FPP-102: Fundamental of Food and Nutrition**	✓ To develop proficiency skill in producing different nutritious food products.
		✓ Operating & management of balanced diets for different age groups
		✓ Make different processed food products with quality assurance
		✓ Assessment of nutritional status of the women and children
FY. (Sem-I)	**FPP-103: Principles of Food Preservation**	✓ Student will enable to understand different food preservation techniques, process.
		✓ Student will enable to extend shelf life of different food product by using the various methods of food preservation.
FY. (Sem-II)	**FPP-111: Food Biochemistry**	✓ To learn and understand the chemistry of various Food micronutrient used in foods along with their role and properties.
		✓ Students will learn about basic reaction in food and their kinetics; nucleic acid, digestion and electrophoresis - protein electrophoresis, protein purification
FY. (Sem-II)	**FPP 112: Food Microbiology**	✓ Students will understand causes of food spoilage of different foods and its type
		✓ To enable the students to gain an insight into basic aspects of food microbiology.
		✓ To understand the advanced techniques in microbial analysis of food.

FY. (Sem-II)	**FPP-113: Processing Technology of Fruits and Vegetables**	✓ To develop proficiency skill in producing different types of processed fruits & vegetables products.
		✓ Operating & maintenance the modern processing equipments& machineries
		✓ To make different processed fruit & vegetable based products with quality assurance and safety
		✓ Process of packaging, storing & marketing
Year	**Course Name**	**Course Outcome**
SY. (Sem-III)	**FPP-201: Food Chemistry**	✓ Student will enable to learn and understand the chemistry with respect to role and functionality of constituents of the food .
		✓ Student will enable to extend shelf life of different food product by using the various methods of food preservation, by adding preservatives and enhance the quality of food by adding food additives.
SY. (Sem-III)	**FPP-202: Dairy Technology**	✓ To get acquainted with the processing technology of milk and milk products
		✓ Students will learn about milk and milk products physicochemical properties, chemical properties. ✓ Student will be able to learn the processing of paneer, cheese, butter, ghee and other milk products.
SY. (Sem-III)	**FPP-203: Processing Technology of Cereals, Legumes & Oil seeds.**	✓ Students will understand causes of food spoilage of different foods and its type

SY. (Sem-IV)	**FPP-211: Food Biotechnology**	✓ **Students will be enable to gain knowledge about, the biotechnological aspects involved in food and its application for development of food in relation to food security.** ✓ Students will be enable to learn genetics, molecular biology and basis for developments of genetically modified foods and their safety issues involved in food biotechnology
SY. (Sem-IV)	**FPP-212: Animals Products Technology**	✓ The students will get exposure in slaughtering techniques, processing and preservation of various meat, fish and poultry products
SY. (Sem-IV)	**FPP-213: Bakery & Confectionary Technology**	✓ The students will be familiar to various types of wheat flour, its application in bakery products and skill development in preparation of various bakery and confectionary products.
Year	**Course Name**	**Course Outcome**
TY. (Sem-V**)**	**FPP-301: Food regulation and quality control**	✓ Be able to critically evaluate the recent developments in the control of food safety and Have an integrated view of the issues involved ✓ Be able to conduct risk assessments of food safety problems including genetic modification and demonstrate detailed knowledge of the requirements for compliance with national and international food safety legislation ✓ Be able to explore the history and basic ideas underlying quality management and have a detailed knowledge of the role of Quality Management (QM) in modern management ✓

TY. (Sem-V)	**FPP-302: Food Packaging**	✓ Students will understand the principles, the fundamentals and the importance of packaging systems in the supply chain of food.
		✓ Acquire knowledge on major packaging systems for foods and beverages in what concerns the materials, properties and their relation with the foods shelf-life and performance in the supply chain ✓ Acquire knowledge of physical, mechanical and chemical properties of the materials, and understand the impact of packaging on the safety of the food product and the role regarding food security.
TY. (Sem-V)	**FPP-303: Spices& Flavors Technology**	✓ Acquire knowledge and skills in solving problems related to the preservation and use of spices and ability to understand foreign cultures and customs. ✓ Students will understand various major and minor spices and will acquire knowledge related to functional role.
TY. (Sem-VI)	**FPP-311: Food Safety, Hygiene & Sanitation**	✓ To learn and understand the chemistry of various Food micronutrient used in foods along with their role and properties.
		✓ Students will learn about basic reaction in food and their kinetics; nucleic acid, digestion and electrophoresis - protein electrophoresis, protein purification
TY. (Sem-VI)	**FPP-312: Waste & By-products Utilization**	✓ Students will be able to identify various wastes from food industries and understand their characteristics.
		✓ Understand various by products from food industry waste and understand various methods of waste treatment and disposal

		✓ To understand the advanced techniques in microbial analysis of food. ✓ Understand legal aspects related to food waste disposal
TY. (Sem-VI)	**FPP – 313: Novel Food Processing Technologies**	✓ In depth understanding of novel and innovative food sciences and emerging technologies
		✓ Understanding and ability to apply these novel technologies and the underpinning science to preserve and control the nutritional, microbiological and functional properties of foods.