

PROGRAMME: B.SC FOOD SCIENCE AND QUALITY CONTROL

The B.Sc. Food Science and Quality Control program equips individuals to well-prepared to excel in their careers, contribute to the food industry, and promote the production of safe, high-quality food products.

Program Outcomes (PO):

1. **Comprehensive Knowledge:** Graduates will have a robust understanding of food science principles, including food chemistry, microbiology, and quality management systems, necessary for effective preservation, processing, and utilization of perishable agricultural produce.
2. **Technical Competence:** Graduates will demonstrate proficiency in applying food safety systems, including Good Manufacturing Practices (GMP) and Hazard Analysis and Critical Control Points (HACCP), to ensure the production of high-quality, safe food.
3. **Practical Skills:** Graduates will possess hands-on experience through industrial training, enabling them to operate effectively in various food industry settings and manage food quality control processes.
4. **Analytical Abilities:** Graduates will be skilled in performing diagnostic analyses of food products to ensure compliance with safety standards and quality benchmarks.
5. **Entrepreneurial Skills:** Graduates will be equipped to pursue entrepreneurial opportunities in the food sector, including setting up and managing small-scale food enterprises.
6. **Awareness and Advocacy:** Graduates will have the capability to organize and participate in initiatives that promote awareness of the importance of safe, nutritious processed food.
7. **Ethical Practices:** Graduates will adhere to ethical standards and practices in food science, ensuring integrity and accountability in their professional roles.
8. **Communication Skills:** Graduates will effectively communicate scientific and technical information to stakeholders, including industry professionals, regulatory bodies, and the general public.

Course Outcomes (CO):

1. Fundamentals of Food Science:

CO1.1: Explain the basic principles of food chemistry, including the structure and function of carbohydrates, proteins, lipids, and vitamins.

CO1.2: Describe the roles of microbiology in food safety and quality, including microbial growth, contamination, and control methods.

CO1.3: Apply quality assurance techniques to evaluate food products for compliance with industry standards.

2. Food Safety Systems:

CO2.1: Identify and implement Good Manufacturing Practices (GMP) and Hazard Analysis and Critical Control Points (HACCP) in food production processes.

CO2.2: Analyze case studies of food safety breaches and propose corrective actions based on established safety protocols.

CO2.3: Develop and maintain comprehensive food safety plans for various types of food products.

3. Food Quality Management:

CO3.1: Explain key quality management principles and their application in food production and processing.

CO3.2: Evaluate and apply different quality control techniques to ensure food product consistency and compliance with quality standards.

CO3.3: Design and implement quality improvement initiatives to enhance food production processes and outcomes.

4. Industrial Training:

CO4.1: Demonstrate practical skills acquired during industrial training, including familiarity with food production and quality control equipment.

CO4.2: Apply theoretical knowledge to solve real-world problems encountered in the food industry during training.

CO4.3: Reflect on industrial training experiences to identify areas for personal and professional growth in food science and quality control.

5. Entrepreneurship and Small-Scale Enterprises:

CO5.1: Develop a business plan for a small-scale food enterprise, including market analysis, product development, and financial planning.

CO5.2: Assess the feasibility and sustainability of food-related entrepreneurial ventures.

CO5.3: Implement strategies for managing a small food business, including regulatory compliance and quality assurance.

6. Diagnostic Analysis:

CO6.1: Conduct diagnostic tests on food products to assess their quality and safety.

CO6.2: Utilize diagnostic tools and techniques effectively in both laboratory and field settings.

A handwritten signature in green ink, appearing to read "Gimson D. Parambil".

Principal

Prof. (Dr.) Gimson D. Parambil
Principal
St. Xavier's College Vaikom
Kothavara P.O - 686607