

M.S. Ramaiah University of Applied Sciences

New BEL Road, MSR Nagar, Bangalore – 560054



**RAMAIAH
UNIVERSITY**
OF APPLIED SCIENCES

PO, PSO, PEO & CO

Programme: B.Sc. (Hons) in Food Processing and Technology

Programme Code: 019

Programme Outcome (PO)

Programme Specific Outcome (PSO)

Program Educational Objectives (PEO)

Course Outcomes (CO)

Dean

Registrar
M.S. Ramaiah University of Applied Sciences
Bangalore - 560 054

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Faculty of Life and Allied Health Sciences (FLAHS)

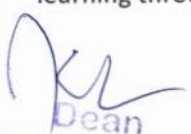
Programme Name: B.Sc. (Hons) in Food Processing and Technology

Programme Outcomes (POs)

- PO 1. **Knowledge:** Apply fundamental knowledge of science and technology to solve real life problems in the chosen domain.
- PO 2. **Design/ Development solution:** Apply disciplinary knowledge and transferable skills in areas related to design and develop new products for solving problems in pharma, healthcare, and agriculture sectors.
- PO 3. **Multidisciplinary approach:** Demonstrate the practical learning skills and integrate knowledge of various disciplines to work effectively in teams with multidisciplinary settings.
- PO 4. **Modern tool usage:** Apply appropriate tools, techniques and understand utilization of resources appropriately in various Laboratories.
- PO 5. **Communication:** Communicate the information effectively in scientific writing and oral presentation.
- PO 6. **Leadership and Ethics:** Apply professional ethics and leadership skills in entrepreneurship.
- PO 7. **Environment and Sustainability:** Understand the impact of the scientific research on society and environment, and select judicious modes of application for sustainable development
- PO 8. **Entrepreneurial Skills:** Enhancing self-employability by applying the basic and applied scientific knowledge acquired
- PO 9. **Lifelong learning:** Adopt changes and advancements in science and engage in independent and life-long learning

Programme Specific Outcomes (PSOs)

- PSO 1: To impart an ability to apply Food technology skills (including microbiology, food process engineering, fermentation, enzymology and nutraceuticals) and its applications in core and allied fields.
- PSO 2: To provide students with the concepts and research approaches for their higher career in the field of food technology and develop their scientific interest.
- PSO 3: To impart in-depth practical oriented knowledge to students in various thrust areas of food technology, so as to meet the demands of industry and academia.
- PSO 4: To provide students interdisciplinary knowledge, research and educational opportunities as a lifelong learning through effective communication skills and strong ethical values


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Programme Educational Objectives (PEOs)

The objectives of the programme are to enable the students to:

- PEO-1.** Understand and apply the concepts of food technology, food quality, safety, packaging and their related aspects for pursuing successful career in industry and pursue higher studies as well.
- PEO-2.** Participate in individual and team oriented, open ended activities aiding constructive thinking to provide opportunity for students to manage and work on multidisciplinary projects.
- PEO-3.** Demonstrate professional and ethical attitude with awareness of current issues and think about the social entailment of their work, especially its impact on safety, health and environment for sustainable development.
- PEO-4.** To promote student awareness of the life-long learning and to introduce them to professional ethics and codes of professional practice



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Course Outcomes (COs)

Course Title & Code: Introduction to Food Technology-I (FTC101A)

After the successful completion of this course, the student will be able to:

- CO-1. Explain evolution of food processing technology
- CO-2. Describe the structure and composition of cereals and pulses and the technology employed in processing
- CO-3. Distinguish and discuss the processing technology employed in vegetable oils and fatty acids
- CO-4. Choose appropriate post-harvest technology for fruits, vegetables and spices processing

Course Outcomes (COs)

Course Title & Code: Food Nutrition and Dietetics (FTC102A)

After the successful completion of this course, the student will be able to:

- CO-1. Define key concepts of nutrition and balanced diet.
- CO-2. Understand the function, digestion, requirement, deficiency and toxicity of macronutrients and micronutrients in diet and effect on human body.
- CO-3. Describe the role of various DRIs in the formulation of dietary guidelines.
- CO-4. Understand malnutrition and assess nutritional status of individuals.
- CO-5. Determine and translate nutrient needs for individuals and groups across the lifespan in day to day life.

Course Outcomes (COs)

Course Title & Code: Principles of Food Science (FTC103A)

After the successful completion of this course, the student will be able to:

- CO-1. Explain the properties of water and its role in food processing and spoilage
- CO-2. Summarize the properties of flexible packaging material and its significance
- CO-3. Describe different types of food additives used in food processing
- CO-4. Describe the sensory evaluation method/ process for evaluating food products
- CO-5. Discuss the factors affecting growth of microbes in raw food (material) and processed food
- CO-6. Discuss the effect of ohmic heating and pressure on food

Course Outcomes (COs)

Course Title & Code: Fundamentals of Food Processing (FTO101A)

After the successful completion of this course, the student will be able to:

- CO-1. Explain basic methods of pre-processing and cooking
- CO-2. Gain knowledge on the structure, composition and nutritional quality of various plant and



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animalfoods

- CO-3. Provide an overview of processing of plant and animal foods.
- CO-4. Analyse the effect of processing on nutritive value of plant and animal based food products
- CO-5. Develop various plant and animal based food products

Course Outcomes (COs)

Course Title & Code: English for Communication 1 (TSM101A)

After the successful completion of this course, the student will be able to:

- CO-1. Identify the nuances of communication skills
- CO-2. Apply the concepts of grammar in written communication
- CO-3. Apply professional etiquette as appropriate
- CO-4. Practice extempore and basic conversation skills
- CO-5. Practice comprehension skills
- CO-6. Compose precise paragraphs as per the given topic

Course Outcomes (COs)

Course Title & Code: Introduction to Food Technology II (FTC104A)

After undergoing this course students will be able to:

- CO-1. Explain concepts of unit operations, dimensional analysis and Energy Balance
- CO-2. Describe important considerations for designing of food plant layouts
- CO-3. Explain the structure and composition of flesh foods and the technology employed in processing
- CO-4. Explain the significance of processing, pasteurization and homogenization of milk

Course Outcomes (COs)

Course Title & Code: Bakery and Confectionary (FTC107A)

After the successful completion of this course, the student will be able to:

- CO-1. Describe the types of wheat and the fundamental tools used in baking
- CO-2. Discuss the technology used to create baked goods made with hard wheat and soft wheat
- CO-3. Discuss innovative techniques to improve the quality of baked goods.
- CO-4. Explain the fundamental guidelines for creating confectionery products
- CO-5. Develop various baked and confectionary products


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Course Outcomes (COs)

Course Title & Code: Fundamentals of Fruits Vegetables and Plantation Crops (FTC106A)

After undergoing this course students will be able to:

- CO-1. Explain history and evolution of food preservation
- CO-2. Describe method /operations/ technology used for preserving various plant based products
- CO-3. Explain processing of beverages, jam, jelly and marmalade
- CO-4. Analyse types of processing and causes of spoilage of pickles, chutneys and sauce
- CO-5. Propose appropriate food processing methods for the plantation crop products
- CO-6. Choose methods for preservation of fruits, vegetables and plantation crops

Course Outcomes (COs)

Course Title & Code: Food Hygiene and Sanitation (FTO102A)

After undergoing this course students will be able to:

- CO-1. Understand the significance of food hygiene and sanitation in public health
- CO-2. Demonstrate the characteristics and role of microorganisms and other contaminants in food contamination and spoilage.
- CO-3. Outline safety regulatory requirements, food plant design, and management.
- CO-4. Demonstrate the importance of various parameters to determine water quality and analyze waterquality assessment standards.

Course Outcomes (COs)

Course Title & Code: Environmental Studies (BTN101A)

After undergoing this course students will be able to:

- CO-1. Illustrate the multidisciplinary nature of environmental studies and recognize the need for public awareness
- CO-2. Explain the various natural resources and their associated problems, ecosystem, and environmental pollution
- CO-3. Analyse the concept of ecosystem and classify various types
- CO-4. Compare biodiversity at local, national and global levels
- CO5. Discuss various social issues pertaining to environment including sustainable development and energy issues



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