

DEPARTMENT OF B.VOC PROGRAMMES

B.Voc AGRO FOOD PROCESSING

Programme Outcome

After completing a course in B.Voc Agro Food Processing, a student will,

PO1	Accrue the basic knowledge about the chemical structure, processing methods, additives used and the preservative techniques of foods.
PO2	Get the basic knowledge about the cultivation and production of different agricultural crops.
PO3	Learn the basic processing methods of different classes of foods such as, fruits and vegetables, milk, meat and fish, cereals and pulses, Bakery products etc.
PO4	Learn, how to formulate a nutritional food or a balanced diet.
PO5	Accrue skilled knowledge in the chemical and microbiological analysis of food.
PO6	Get awareness about different adulterants used in food and the methods to detect those adulterants in foods.
PO7	Study the working principles and experience the operating methods of different food processing equipments and machineries.
PO8	Learn to practice safe and sanitary procedures to make a hygienic and hazard free nutritious food.
PO9	Get skilled training to make different value added products from agricultural produces and their marketing practices. So that the wastage of agricultural produce can be minimized.
PO10	Learn about the construction and layout of a food processing industry.
PO11	Motivated with entrepreneurship goals and practices.
PO12	Practice the 'Earn-while-you-learn' system.
PO13	Get awareness about the national and international standards and regulatory authorities related to food processing and marketing.
PO14	Get awareness about government subsidies, grants and other programs that help people to make their own food processing industries and business.

Course Outcome

SEMESTER – I

GENERAL EDUCATION COURSES

BOCG101- LISTENING AND SPEAKING SKILLS IN ENGLISH

Course Outcome:

- The students will learn the basic grammar, correct pronunciation of words, sounds and will accrue good listening and speaking skills.

CORE COURSES

➤ AFP1S01- BASIC PRINCIPLES OF FOOD PROCESSING

Course Outcome:

- To deliver a sequence of steps to produce an acceptable and quality food product from raw materials.
- Study of scientific and technological advancements in food processing.

➤ AFP1S02- BASIC PRINCIPLES OF FOOD PRESERVATION

Course Outcome:

- To enable the students to acquire knowledge on different preservation techniques used to enhance the shelf span of food product.
- To study the different mode of spoilage in foods and minimize the contamination by different preservation technology.

➤ AFP1S03- FOOD CHEMISTRY

Course Outcome:

- To acquaint various functional chemical constituents of food.
- To build a relationship between the dynamic forces of food and the dynamic forces of digestion and growth.

COMPLIMENTRY COURSE

BAT1G03-FUNDAMENTALS OF HORTICULTURE

Course Outcome:

- To acquaint with importance, division and classification of horticultural crops.
- To understand the basic principles and types of plant propagation.

ACTIVITY ORIENTED CLASS(AOC)

Course Outcome:

- To study the manufacture of various food products
- To test the presence of carbohydrates and proteins in food samples.
- To estimate the nutrients in different food samples.
- To develop skill in propagation and cultivation aspects of horticultural crops.

SEMESTER-2

GENERAL EDUCATION COURSES

BOCG201- WRITING AND PRESENTATION SKILLS IN ENGLISH

Course Outcome:

- The students will accrue good writing skills, business communication skills and presentation skills.

CORE COURSES

➤ AFP2S01- FOOD ADDITIVES

Course Outcome:

- To attain knowledge regarding the use of additives in the food industry, laws related to food additives and to prevent the involuntary infringement of analytical procedures.

➤ AFP2S02- BASIC PRINCIPLES OF FOOD ENGINEERING

Course Outcome:

- Students will be able to apply material balances and energy balances to the field of food engineering.
- Students will be able to understand equipment used in the food industry.

➤ **AFP2S03- BASIC MICROBIOLOGY**

Course Outcome:

- Acquire an elementary knowledge about microorganisms.
- Develop an understanding of microbial contamination and hazards in a food industry.

➤ **AFP2G02- FRUIT AND VEGETABLE PROCESSING TECHNOLOGY**

Course Outcome:

- To acquire knowledge about the selection of fruits for processing and value addition.
- Learn to introduce the latest technologies, manufacturing processes and tools for effective control of safety and quality during processing.

COMPLIMENTRY COURSE

BAT2G03-CULTIVATION OF COCONUT, PEPPER AND BANANA [AOC]

Course Outcome:

- To develop skill and to get experience in the cultivation practices of coconut, pepper and banana.
- To practice High density planting of Banana Precision farming, Fertigation of Banana.

ACTIVITY ORIENTED CLASS (AOC)

Course Outcome:

- To study the basic rules and requirements of a microbiology laboratory.
- Give emphasis towards the preparation of biological stains, reagents, media and their composition.
- To get thorough with different methods for staining for detection of microorganisms.
- To be innovative in exploring various processed and value added products from agricultural commodities.

SEMESTER-3

GENERAL EDUCATION COURSES

BOCG301 -PRINCIPLES OF MANAGEMENT

Course Outcome:

- Students will accrue administrative and office management skills.

CORE COURSES

➤ AFP3S01- FOOD PROCESSING MACHINERIES

Course Outcome:

- Students will be able to understand a food plant design, functioning of different machines in the industry.
- Understand the various processing equipment on the basis of unit operations of mechanical processes.

➤ AFP3S02- BAKERY AND CONFECTIONERY TECHNOLOGY

Course Outcome:

- Understand the processing methods used in the manufacturing of confectionary and bakery products.

➤ AFP3S03- FOOD ANALYSIS AND ADULTERATION TESTING

Course Outcome:

- To understand different sampling techniques employed in chemical analysis of foods.
- To learn various chemical methods of food analysis.
- To be familiar with adulteration test used for quality control.

➤ AFP3G02- CEREALS AND PULSES PROCESSING TECHNOLOGY

Course Outcome:

- To give a general outline about the principles, structure and composition, economic importance and storage of different cereals, pulses and their products.

COMPLIMENTRY COURSE

BAT3G03 -PROTECTED CULTIVATION OF HORTICULTURAL CROPS

Course Outcome:

- To familiarize with protected cultivation structures and cultivation practices.

ACTIVITY ORIENTED CLASS (AOC)

Course Outcome:

- To learn various processing aspects of food products, having economic importance.
- To learn the method of processing of various cereals and pulses.
- Setting up a polyhouse for vegetable production with drip irrigation facility and a hardening unit with mist propagation in college field as a part of earn while you learn programme.
- To practice with protected cultivation practices of important crops.

SEMESTER – 4

GENERAL EDUCATION COURSES

BOCG401-SOFTSKILLS AND PERSONALITY DEVELOPMENT

Course Outcome:

- The students will develop a good personality characteristics and a social communication skills.

CORE COURSES

➤ AFP4S01- DAIRY TECHNOLOGY

Course Outcome:

- Understand the importance of milk as an agricultural commodity.
- To be innovative in exploring various traditional and nontraditional milk products.
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➤ **AFP4S02- MEAT FISH AND POULTRY PROCESSING TECHNOLOGY**

Course Outcome:

- To provide an extensive description of meat, fish and poultry processing.
- To introduce the latest technologies, manufacturing processes and tools for effective control of safety and quality during processing.

➤ **AFP4S03- FOOD SCIENCE AND NUTRITION**

Course Outcome:

- To know and understand the functions, importance of all nutrients present in foods.
- To know about the various types of nutrients and their functions in the body.
- To familiarize with the recent advances in field of nutrition.
- To understand the different types of newly developed food products.

➤ **AFP4G02- FAT AND OIL PROCESSING TECHNOLOGY**

Course Outcome:

- To understand various aspects of oil processing technology employed in food industry.
- To learn various chemical properties and packaging methods of oils.

COMPLIMENTRY COURSES

BAT4G03- COMMERCIAL VEGETABLE PRODUCTION

Course Outcome:

- The students will learn the latest technologies and correct methods for the commercial production of vegetable crops.

ACTIVITY ORIENTED CLASS (AOC)

Course Outcome:

- To analyze the chemical constituents of milk as an agricultural commodity.
- To be innovative in exploring various traditional and nontraditional milk products.
- To give foundation to fat analysis.
- Familiarization of different vegetable crops- through field visits and slide show.

SEMESTER - 5

GENERAL EDUCATION COURSES

BOCG501-ENVIRONMENTAL STUDIES

- The students will get proper awareness on Environmental Issues.
- To build a pro-environmental attitude and a behavioral pattern in society based on sustainable lifestyles.
- To impart basic knowledge on pollution and environmental degradation.

CORE COURSES

➤ **AFP5S01- FOOD PACKAGING**

Course Outcome:

- To be familiar with different methods and materials used for packaging of foods.
- To understand the technology behind packaging.

➤ **AFP5S02- TECHNOLOGY OF BEVERAGES**

Course Outcome:

- Enables the students to get knowledge on fermented, non-fermented and distilled beverages.

➤ **AFP5S03- SENSORY EVALUATION**

Course Outcome:

- To understand different aspects of sensory science and its application.

➤ **AFP5G02- SANITATION AND HYGIENE**

Course Outcome:

- To know the principles and applications of sanitation in food industry.

➤ **AFP5G03- DRYING TECHNOLOGY**

Course Outcome:

- To be familiar with different methods of drying.
- To understand the technology behind drying.

ACTIVITY ORIENTED CLASS (AOC)

Course Outcome:

- Visit pack house of various industries and design new generation packing technology.
- Accrues knowledge about the preparation of various soft drinks, alcoholic and non-alcoholic beverages.
- Understands different aspects of various sensory parameters and its application in food quality analysis.

SEMESTER 6

GENERAL EDUCATION COURSES

BOCG601- ENTREPRENEURSHIP DEVELOPMENT

Course Outcome:

- Understand the significance of entrepreneurs in the development of a country.
- Familiarize with procedures and legal issues involved in setting up an enterprise.
- Get motivated to become an entrepreneur.

CORE COURSES

➤ AFP6G02- COMPUTER HARDWARE AND NETWORKING

Course Outcome:

- Understands the hardware components of a system.
- Understands basic issues in installing and using software.
- Understands how a network functions and the issues of network security.

➤ AFP6S01- ANALYTICAL METHODS IN FOOD PROCESSING

Course Outcome:

- To know the principles and applications of different techniques used in food and nutrition research.
- To gain knowledge about different instruments used in chemical analysis of food.

➤ **AFP6S02- FOOD PLANT DESIGN**

Course Outcome:

- Understands concepts of food plant layout.
- Accrues the knowledge on building, utilities in the plant.
- Understand the importance of proper food plant design.

➤ **AFP6G03- FOOD TOXICOLOGY**

Course Outcome:

- Provide students with a basic understanding of the principles of toxicology.
- Provide students an in depth understanding of how the science of toxicology is applied to chemical food and feed safety, including food regulation and risk assessment.

ACTIVITY ORIENTED CLASS (AOC)

Course Outcome:

- To gain knowledge about different instruments used in food analysis
- Familiarize with food plant design.