

Sectoral Specialisation

GANPAT UNIVERSITY									
FACULTY OF MANAGEMENT STUDIES									
Programme	Master of Business Administration					Branch/Spec.	Agribusiness		
Semester	IV					Version	1.0.0.1		
Effective from Academic Year			2020-21		Effective for the batch Admitted in			July 2020	
Subject code		IVA04FPT	Subject Name		FOOD PROCESSING TECHNOLOGY AND QUALITY ASSURANCE				
Teaching scheme						Examination scheme (Marks)			
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	4	0	0	0	4	Theory	60	40	100
Hours	4	0	0	0	60	Practical			
Course Outcomes:									
This course aims at honing the skills of students with a special aptitude in Food Processing Industry. On successful completion of this module, students will be able									
CO-1: to understand the food processing industry, the methods used for processing of food products, and some technical terminology involved in processing industry									
CO-2: to learn the concept of Quality, parameters of quality assurance of food at various stages of processing.									
CO-3: to explore the evaluation methods of processed food adopted by manufacturers									
CO-4: to learn certain food law, which are near to mandatory to adopt by food processors and marketers reflecting the quality parameters									
CO-5: to learn and be aware with the principles and regulations involved in food labelling									
CO-6: to learn about packaging material used in processed food industry									
CO-7: to understand the food retail market, its value chain and its effectiveness									
CO-8: to understand world food market through real time case study or project based learning.									
Theory syllabus									
Unit	Content								Hrs
1	Scope and importance of food processing. National and international perspectives. Principles and methods of food preservation-freezing, heating, dehydration, canning, additives, fermentation, irradiation, extrusion cooking, hydrostatic pressure cooking, dielectric heating, microwave processing, aseptic processing, hurdle technology, Juices and concentrates/membrane technology. Storage of food, modified atmosphere packaging. Refrigeration, freezing and drying of food, minimal processing, radiation processing.								14
2	Objectives, importance and functions of quality control. Methods of quality, concepts of rheology, assessment of food materials-fruits, vegetables, cereals, dairy products, meat, poultry, egg and processed food products. Sampling and specification of raw materials and finished products, statistical quality control. Sensory evaluation-introduction, panel screening, selection methods. Interaction and thresholds. Sensory and instrumental analysis in quality control								12
3	Food regulations, Law and standards, Concept, policy- FSSAI, HACCP, CODEX etc. Food export policy.								8
4	Food Labelling and Packaging: Importance of food labelling, law of food labelling for domestic and international marketing of food products. Types of Packaging Material, Advantages and disadvantages of different types of food packaging material, Recent trends in Food Packaging. Packaging materials used for and criteria for selection of packaging materials: fruit products, vegetable products, fish and fish products, meat and meat products, beverage carbonated, Milk and milk products, tea, coffee, alcoholic beverages, confectionery-fat and oil, frozen products, bakery products, food grains, storage and handling packaging materials								8

5	Food Retailing- Value Chain in Food Retailing, Principal trends in food wholesaling and retailing, food wholesaling, food retailing, the changing nature of food stores, various retailing formats, competition and pricing in food retailing, market implications of new retail developments, value chain and value additions across the chain in food retail, food service marketing	8
6	World Processed Food Market: On the basis of the new market concept in Food industry, the students need to study and prepare a project report on contemporary issues and or emerging area of food market.	10
Reference Books		
1	Arsdel W.B., Copley, M.J. and Morgen, A.I. 1973. Food Dehydration, 2nd Edn. (2 vol. Set). AVI, Westport.	
2	Bender, A.E. 1978. Food Processing and Nutrition. Academic Press, London.	
3	Fellows, P. and Ellis H. 1990. Food Processing Technology: Principles and Practice, New York.	
4	Jelen, P. 1985. Introduction to Food Processing. Prentice Hall, Reston Virginia, USA.	
5	Lewis, M.J. 1990. Physical Properties of Food and Food Processing Systems. Woodhead, UK.	
6	Willey, R.C. Ed. 1994. Minimally Processed Refrigerated Fruits and Vegetables. Chapman and Hall, London.	
7	Amerine, M.A. Pangborn, R.M., and Rossler, E.B. 1965. Principles of Sensory Evaluation of Food. Academic Press, New York.	
8	Birk, G.G., Herman, J.G. and Parker, K.J. Ed. -1977. Sensory Properties of Foods. Applied Science, London.	
9	Charalambous, G. and Inglett, G. 1981. The Quality of Foods and Beverages. (2 vol. set). Academic Press, New York.	
10	Mathlouthi M., Food Packaging and Preservation, Blackie Academic & professional	
11	Krammer, A. and Twigg, B.A. 1970. Quality Control for the Food Industry. 3rd Edn. AVI, Westport.	
12	Pattee, H.E. Ed. 1985. Evaluation of Quality of Fruits and Vegetables. AVI, Westport.	
13	Ranganna, S. 1986. Handbook of Analysis and Quality Control for Fruits and Vegetable Products. Tata McGraw Hill, New Delhi.	
14	Tannenbaum, S.R. Ed. 1979. Nutritional and Safety Aspects of Food Processing, Marcel Dekker, New York.	