

Course code	Course Name	L-T-P-Credits	Year of Introduction
CH468	FOOD PROCESSING AND TECHNOLOGY	3-0-0-3	2016
Prerequisite : Nil			
Course Objectives			
<ul style="list-style-type: none"> • To familiarize the food industry • To identify the world and Indian food scenario • To introduce various food preservation techniques • To familiarize various food sources and their processing techniques 			
Syllabus			
<p>General aspects of food industry, world and Indian food needs, various food constituents and additives, food deteriorative factors and their control, Preliminary processing methods, food conversion techniques and equipment used. Food quality control and nutritive aspects, Various food preservation techniques such as dehydration, sterilization and pasteurization, fermentation, cold treatment, irradiation, microwave etc. Production of various food materials and its processing - cereals, pulses, vegetables, spices, fats and oils. Food industries - Dairy products, meat, poultry and fish products. Beverage Industry- Soft and Alcoholic. Treatment and disposal of food processing wastes</p>			
Expected Outcome			
<p>The students will be able to apply</p> <ol style="list-style-type: none"> i. The various food processing and preservation techniques and the equipment and technology required. ii. To familiarise various food industries and food quality aspects 			
Reference Books			
<ol style="list-style-type: none"> 1. B.Sivasankar, Food Processing and Preservation, PHI Learning Pvt. Ltd 2. Badger, W.L, Banchemo, J.T., Introduction to Chemical Engineering, McGraw Hill 3. Food Industry Wastes: Disposal and Recovery; Herzka A & Booth RG; 1981, Applied Science Pub Ltd. 4. Hall C.W, Farall A.W & Rippen A.L, Encyclopedia of Food Engineering, Van Nostrand, Reinhold, New York. 5. Heid J.L & Joslyn M.A, Fundamentals of Food Processing Operations, AVI Pub. 6. Unit Operations of Chemical Engineering: McCabe, Smith & Harriot, TMH, 5th edition 7. V. Sathe, A First Course in Food Analysis, New Age International Pvt. Ltd. 1999 8. Waston E.L., Elements of Food Engineering, Van Nostrand, Reinhold, New York. 			

Course Plan			
Module	Contents	Hours	Sem. exam marks
I	General aspects of food industry World and Indian food needs Various food constituents and additives Food deteriorative factors and their control	7	15%
II	Preliminary processing methods Food conversion techniques and equipment used Food quality control and nutritive aspects	7	15%
FIRST INTERNAL EXAMINATION			
III	Hot and cold preservation techniques Irradiation and microwave heating Fermentation and Pickling, packing methods	7	15%
IV	Production and processing of cereals, pulses, Production and processing of vegetables, spices fats and oils	8	15%
SECOND INTERNAL EXAMINATION			
V	Food industries - Dairy products, meat, poultry and fish products	6	20%
VI	Beverage Industry- Soft and Alcoholic. Treatment and disposal of food processing wastes	7	20%
END SEMESTER EXAM			

Question Paper Pattern

Maximum Marks: 100

Exam Duration: 3 Hours

Part A: There shall be **Three questions** uniformly covering Modules 1 and 2, each carrying 15 marks, of which the student has to answer any **Two questions**. At the most 4 subdivisions can be there in one main question with a total of 15 marks for all the subdivisions put together. (2 x15= 30 Marks)

Part B: There shall be **Three questions** uniformly covering Modules 3 and 4, each carrying 15 marks, of which the student has to answer any **Two questions**. At the most 4 subdivisions can be there in one main question with a total of 15 marks for all the subdivisions put together. (2 x15= 30 Marks)

Part C: There shall be **Three questions** uniformly covering Modules 5 and 6, each carrying 20 marks, of which the student has to answer any **Two questions**. At the most 4 subdivisions can be there in one main question with a total of 20 marks for all the subdivisions put together. (2 x20= 40 Marks)