

Subject Code: 2SC1000422	Subject Title: Food Fermentation Techniques
COURSE TYPE: SUBJECT ELECTIVE	

Course Objective:

From ancient times, fermented foods are in existence. It is necessary to learn the fundamental aspects of food preparation methods including the techniques and methodology concerned with food preparation/ fermentation techniques. This course covers all these aspects with enough details.

Teaching scheme (hours) per week		Credit			Theory Marks		Practical Marks		Total
Theory	Practical	Theory	Practical	Total	Uni. Assessment	Cont. Assessment	Uni. Assessment	Cont. Assessment	
2	--	2	--	2	35	15	--	--	50

Unit	Content	Lectures	Weightage
1	(A) Fermented Foods ✓ Definition, types, advantages and health benefits (B) Milk Based Fermented Foods ✓ Dahi, Yogurt, Buttermilk (Chach) and cheese: Preparation of inoculums, types of microorganisms and production process (C) Grain Based Fermented Foods ✓ Soy sauce, Bread, Idli and Dosa: Microorganisms and production process	18	60%
2	(A) Vegetable Based Fermented Foods ✓ Pickles, Sauerkraut: Microorganisms and production process (B) Fermented Meat and Fish ✓ Types, microorganisms involved, fermentation process (C) Probiotics Foods ✓ Definition types, microorganisms and health benefits.	12	40%

Learning Outcome:

Students will learn the techniques for the fermentation of different foods that are based on different raw materials, for example, Milk, Vegetable, Grain, Meat, Fish, etc. They will also learn about the probiotic foods and their health benefits.

Reference Books:

- Hui YH, Meunier- Goddi kL, Josephsen J, Nip WK, Stanfield PS (2004) Handbook of food and fermentation technology, CRC Press
- Holzapfel W (2014) Advances in Fermented Foods and Beverages, Woodhead Publishing.
- Yadav JS, Grover, S and Batish VK (1993) A comprehensive dairy microbiology, Metropolitan
- Jay JM, Loessner MJ, Golden DA (2005) Modern Food Microbiology, 7th edition. Springer