



(Master of Science –Home Science) (Food Biotechnology)
(M.Sc.- H.Sc.) (Food Biotechnology) Semester (II)

Course Code	PH02CFBT57	Title of the Course	Practical based on Food Analysis
Total Credits of the Course	02	Hours per Week	04

Course Objectives:	1. To learn analytical techniques of proximate composition, bioactive components and food additives
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Course Content		
Unit	Description	Weightage (%)
1.	Estimation of moisture from food sample	15
2.	Fat constants – unsaponification matters, TBA, fat content	15
3.	Carbohydrates – Lactose, reducing sugar, dietary fibre, crude fibre, total Carbohydrate	20
4.	Protein – Nitrogen analysis, methionine	15
5.	Pigments –Bixin, total carotenoid	10
6.	Vitamin- vitamin C	5
7.	Determination of mineral impurities (fruit and vegetable products)	10
8.	Determination of benzoic acid content from commercial ketchup, jam and beverage	5
9.	Determination of antioxidant content in commercial food products (BHA, BHT etc.)	5

Teaching-Learning Methodology	Classroom lectures (Blackboard), demonstration and followed by actual performance by students and discussion of results.
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Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage





1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%

Course Outcomes: Having completed this course, the learner will be able to

1.	Estimate the proximate composition from foods.
2.	Determination of bio-active components present in foods and unconventional sources.
3.	Analyse the food additives.

Suggested References:

Sr. No.	References
1.	Nollet., Leo M. L., Toldra., Fidel 2012 <i>Handbook of Analysis of Active Compounds in Functional Foods</i> . Boca Raton: CRC Press Taylor and Francis Group.
2.	Stahl.Egon., Ashworth M.R.F.1990 <i>Thin Layer Chromatography A Laboratory Hand Book 2nd Edition</i> . Newyork:Springer.
3.	Irudayaraj & Joseph. 2013 <i>Non-destructive testing of food Quality</i> . Black well publishing
4.	Nallet leo M L., 2014 <i>Hand book of dairy foods analysis</i> . CRC press Tylor & Francis group New York.
5.	Douglas. Skoog., Thomson. S A.2007 <i>Principles of Instrumental Analysis 6th Edition</i> . Brooks/Cole.
6.	Nelson Suzanne S, 2003, <i>Food Analysis 3rd Edition</i> .

On-line resources to be used if available as reference material

On-line Resources

1. <https://fssai.gov.in/cms/manuals-of-methods-of-analysis-for-various-food-products.php>





2. *prsvkm_laboratory_manual_of_biochemistry.pdf*

