OPJS UNIVERSITY, CHURU (RAJASTHAN)

SYLLABUS

for

DIPLOMA IN FOOD PRESERVATION TECHNOLOGY (DFPT)

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School of Para Medical Science

Opjs University, Churu (Rajasthan)  
2013-14

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Diploma in Food Preservation Technology

(DFPT)

(Duration : 1 Year)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Paper code</th>
<th>Name of papers</th>
<th>M.M.(T &amp; S.)</th>
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<tr>
<td>1.</td>
<td>FPT-01</td>
<td>Food Chemistry &amp; Food Microbiology</td>
<td>70+30</td>
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<td>2.</td>
<td>FPT-02</td>
<td>Food Process Engineering</td>
<td>70+30</td>
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<td>3.</td>
<td>FPT-03</td>
<td>Food Preservation Technology</td>
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<td>4.</td>
<td>FPT(P)-04</td>
<td>Food Technology Lab.</td>
<td>70+30</td>
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Details of Syllabus:-

FPT-01- FOOD CHEMISTRY & FOOD MICROBIOLOGY

Unit-I : Constituents of Food.


Unit-II :

Proteins – chemical comp. Structure, properties – classification - Digestion and absorption – Function of proteins – Protein metabolism – Nutrition values of

Unit-III:

Vitamin and minerals – Classification of vitamin, sources of vitamin, nutrition value of vitamin – Diseases caused by deficiency of vitamins – vitamin requirements.


Unit-IV:

Food and Microbiology : Food as a substrate for microorganism – microorganism in food Microbiology – contamination of foods – general principles underlying spoilage – Chemical change caused by microorganism.

Unit-V:

Contamination – preservation and spoilage of different kinds of foods – cereal and cereal products, sugar and sugar products, vegetable and fruit, meat and meat products, fish and other sea foods – eggs, poultry, milk and milk products-Food and enzyme produced by microorganisms.

Suggested Readings:
2. Dr. Westhoff & W.C. Frazier – Food Microbiology,
FPT-02- FOOD PROCESS ENGINEERING

Unit-I:

Food products – Milk and Milk products, Meat – poultry and eggs – Sea foods fat, oils and related products, cereals, grains, legumes, oil seeds.

Physical properties of food – Rheology and Texture, Rheological behavior foods and its measurement – Non Newtonian behavior of food.

Unit-II:

Mass Transfer: diffusion, extraction, crystallization as applicable to production of food products – Heat transfer – Heating, cooling, vaporization – Freeze and hot drying as application to food products. Equipments for fish processing and other foods.

Unit-III:


Unit-IV:

Drying and dehydration of foods- Types of dehydration, sun drying dehydration of fruits, vegetables, milk, butter and cheese.

Unit-V:


Suggested Readings:
FPT-03 - FOOD PRESERVATION TECHNOLOGY

Unit-I:


Unit-II:


Unit-III:

Cold preservation and processing – Distinction between refrigeration and freezing – refrigeration and cold storage – Freezing and frozen storage – Additional developments.

Unit-IV:

Irradiation- Microwave and homic processing of foods – Foods Irradiation, Microwave heating and ohmic heating.

Unit-V:


Fish curing and processing – chilled and frozen fish production – salting and marinating. Fish smoking.

Suggested Readings:
2. G. Subhulakshmi & Shoba A. Udipi – Food Processing and Preservation.
FPT-04- FOOD TECHNOLOGY LABORATORY

1. Determination of Moisture in food products.
2. Determination of nitrogen compounds in feedstuffs.
3. Determination of carbohydrates.
4. Determination of lipids.
5. Determination of minerals in food.
7. Thin layer chromatography for protean determination.
8. Gas chromatography for determination of sugars, organic acids and alcohols.
10. Preparation of Jam, Squash.

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