CURRICULUM FOR

B.Sc Life Science Subject:

FOOD & NUTRUTION

IN UNDER GRADUATE DEGREE PROGRAMME CBCS SYLLABUS

WITH EFFECT FROM ACADEMIC YEAR 2020-2021



KAKATIYA UNIVERSITY WARANGAL, TELANGANA STATE, INDIA



KAKATIYA UNIVERSITY

- **TELANGANA** -21 onwards)

B.Sc. FOOD & NUTRITION Syllabus, Kakatiya University, Warangal CBCS pattern in Semester System (w.e. from 2020-21)

SEMESTER PATTERN

Year	Sem	Code	Course Title	Course Type	HPW	Credits
FIRST	Ι	BS 104	Introduction to Foods & Nutrition	DSC - 1A	4T+2P=6	4+1=5
	II	BS 204	Nutritional Biochemistry and Human Physiology	DSC -1B	4T+2P=6	4+1=5
SECOND	III	BS 305 Normal and Therapeutic Nutrition		DSC- 1C	4T+2P=6	4+1=5
	IV	BS 405	Diet in Disease	DSC- 1D	4T+2P=6	4+1=5
THIRD	V	BS 504	A- Clinical Dietetics	DSE-1E	4T+2P=6	4+1=5
		BS 505	B- Diet Therapy	DSE-2E		
	VI	BS 604	A-Public Health Nutrition	DSE-1F	4T+2P=6	4+1=5
		BS 605	B-Community Nutrition	DSE-2F		
		BS 603	Project Work/Optional		4	4

Dr. Estari Mamidala Chairman Board of Studies in Zoology Department of Zoology Kalatiya University Warangal-506009

B.Sc. FOOD & NUTRITION – WARANGAL Under Graduate Courses (Under CBCS 2020 B. Sc. I YEAR - SEMESTER - I

PAPER-I: INTRODUCTION TO FOODS & NUTRITION (Theory)

Theory:	4 hrs/week;	Credits : 4	Marks : 100 (Internal-20, External-80)
Practical:	3 hrs/week;	Credits : 1	Marks : 25

UNIT I: INTRODUCTION TO FOOD GROUPS, CEREALS & MILLETS & PURE CARBOHYDRATES

- 1.1 Definition- Food, nutrition, nutrients; food groups based on functions, origin and nutritive value; Food guide pyramid, balanced diet
- 1.2 Cereals and Millets Composition, nutritive value and nutrient losses during processing; breakfast cereals
- 1.3 Sugars Types of sugars and stages of sugar cookery
- 1.4 Jaggery Manufacture and stages of jaggery cookery

UNIT II : PULSES & LEGUMES, NUTS & OIL SEEDS AND FATS & OILS

- 2.1 Pulses & Legumes Composition, nutritive value, nutrient losses during processing, importance of germination and malting; anti nutritional factors
- 2.2 Nuts & Oilseeds Nutritive value, toxins and role in cookery
- 2.3 Fats & Oils Composition, nutritive value, properties- physical and chemical, functions of oils and fat in foods
- 2.4 Rancidity of Oils- Types and prevention

UNIT III: VEGETABLES, FRUITS & FOOD PRESERVATION

- 3.1 Vegetables Classification, composition and nutritive value, changes during cooking, loss of nutrients during cooking, storage, factors affecting storage
- 3.2 Fruits Classification, composition, nutritive value, storage and ripening
- 3.3 Enzymatic browning and its prevention

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3.4 Food preservation – principles, methods- dehydration, low temperature, high temperature and preservatives.

UNIT IV: ANIMAL FOODS AND FOOD ADULTERATION

- 4.1 Milk- Composition, nutritive value, fermented and non-fermented milk products
- 4.2 Egg Composition, nutritive value and quality ; poultry- Classification, composition and nutritive value
- 4.3 Meat -Nutritive Value and changes during cooking; fish classification, composition and nutritive value
- 4.4 Food Adulteration- intentional and incidental

Books Recommended: Text

<u>Books</u>

- Srilakshmi B- Food Science, 5th Edition, New Age International Publishers, New Delhi - 110002, 2011. <u>Reference Books</u>
- Shakuntala Manay N Food Facts and Principles, New Age International Publishers, New Delhi – 110002, 2005.
- Norman Potter N -Food Science, CBS Publishers and Distributors, New Delhi 110002, 2007.

B.Sc. FOOD & NUTRITION KAKATIYA UNIVERSITY – WARANGAL - TELANGANA

Under Graduate Courses (Under CBCS 2020-21 onwards) B. Sc. I YEAR - SEMESTER - I

PAPER-I: INTRODUCTION TO FOODS & NUTRITION (Practical)

- I. Standardization, Preparation and Nutritive value calculation of the recipes based on the following food group and combination
 - 1. Cereal, millet and malting of grains
 - 2. Pulse, germination of grains
 - **3.** Cereal-pulse combination
 - 4. Stages of sugar cookery, preparation with jiggery
- II. Methods of Preservation of
 - 5. Fruits- Squashes and jams
 - **6.** Vegetables by Pickling
- III. 7. Determination of quality of an egg
- IV. Detection of Adulterants
 - 8. Water, urea and starch in milk

- 9. Hydrogenated fat in ghee and butter
- 10. Identification of food colours and textile colours

Books Recommended:

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- Srilakshmi B- Food Science, 5th Edition, New Age International Publishers, New Delhi 110002, 2011.
- Longvah T., Ananthan R., Bhaskarachary K. and Venkaiah K. Indian Food Composition Table, National Institute of Nutrition, Tarnaka, 2017.

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