



**TRINITY COLLEGE FOR WOMEN  
NAMAKKAL**

**DEPARTMENT OF NUTRITION AND DIETETICS  
(UG)**

**SEMESTER-III  
NMEC-BASIC FOOD SCIENCE**

**Presented by**

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# FOOD SCIENCE DEFINITIONS

Food Science is... -The study of the production, processing, preparation, evaluation & utilization of food -It is based on the sciences of chemistry, biology, physics, & psychology



## Goals of Food Science

- To develop new & better food products
- To improve processing & storage techniques
- To determine properties important in developing and storing of safe, high- quality foods

## Nutrition & Nutrients

**Nutrition:** The scientific understanding of how food is used in the body with the aim of providing high nutritional value in foods

**Nutrients:** the substances found in food which are needed for life & growth



# Nutrients

## Macro-nutrients:

1. Carbohydrates
2. Protein
3. Fats

## Micro-nutrients:

4. Vitamins
5. Minerals
6. Water





# Food Science versus Nutrition

## Similarities:

- Both involve the study of food
- Both focus on developing an understanding of how food is used in the human body

## Differences:

- Nutrition involves only 1 aspect of foods (using the nutrients found in foods); Food Science focuses on production, processing, preparation & evaluation of foods as well
- Nutrition is more specific & focused; Food Science is more broad-based

# Areas of focus in Food Science

## 1. Food Production

-The creation of new species of plants & animals by changing their genetic make-up for greater variety, to improve nutrition, or to improve resistance to disease (biotechnology)

## 2. Food Processing

-This involves taking food that has been produced & puts it through steps to create the final marketable results

-The focus may be on flavor, sensory evaluation, packaging, or marketing techniques



### 3. Food Preparation

-This involves the development of preparation instructions for home prepared products - time, temperature, & other factors like altitude adjustments for baked products



### 4. Evaluation of Food

-The work to refine a product's taste, texture, appearance, & other qualities to improve product appeal

-It looks at a product before it hits the market & determines how it needs to be improved to be successful; the product is re-evaluated once it hits the market





## 5.Utilization of food

- This involves the search for new uses for food products
- As growing consumer demands strains the earth's resources, getting the most from every resource gains increased urgency
- Consider the broad uses for soybeans, corn



**Thank you**

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