

# SBCH322: Biochemistry of Nutrition

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# Module outlines

<b>Title</b>	<b>Biochemistry of Nutrition</b>		
<b>Code</b>	<b>SBCH322</b>	<b>Department</b>	<b>Biochemistry Microbiology</b>
<b>Prerequisites</b>	SBCH211 SBCH 212	<b>Co-requisites</b>	None
<b>Aim</b>	The goal of this module is to provide students with comprehensive knowledge of food, nutrition & health.		
<b>Content</b>	<p>The energy value of food; the biological value of food; RDA,  Human nutritional requirements—  Macronutrients—proteins, lipids, carbohydrates  Micronutrients—vitamins, minerals  Minerals metabolism  Water-soluble &amp; fat soluble vitamins  Dietary fiber, alternative sweeteners  Anti-nutrients  Malnutrition (dietary excesses &amp; deficiencies)—obesity, kwashiorkor, marasmus, starvation, diabetes.  Formulated/crash/optimal diets</p>		
<b>Assessment</b>	40% Continuous Assessment Mark (20% practical assessment; 20% tests and assignments) 60% Formal end of module exam (3 hours)		
<b>DP Requirement</b>	40% Continuous Assessment Mark 80% Attendance at practical's and fieldwork		

# SBCH 322: Assessment

- 40% Continuous Assessment Mark
  - 20% Tests and Assignments (2 tests & 1 assignment)
    - Test 1 : Units 1 - 3 – 40%
    - Test 2 : Units 4 & 5 – 40%
    - Assignment : - 20%
  - 20% Practical assessments (Room no. 203 Department of Biochemistry and Microbiology: Monday 11:30 AM to 4 30 PM)
    - Practical Test – 20%
- 60% Formal end of module exam (3 hours)

# Module outlines

UNIT 1: Introduction to Biochemistry of Nutrition

UNIT 2: Energy

UNIT 3: Macronutrients

UNIT 4: Micronutrients, minerals & anti-nutrients

UNIT 5: Malnutrition

# UNIT 1: Introduction to Biochemistry of Nutrition

- Nutritional Biochemistry
- Importance of food
- How the body uses food
- Cellular respiration
- Nutrition basics

# UNIT 2: Energy

- Energy value of food
- Unit of food energy
- Energy values
- Bomb calorimeter
- Recommended Dietary Allowance

# UNIT 3: Macronutrients

- Macronutrients
- Carbohydrates
- Proteins
- Fats

# UNIT 4: Micronutrients, minerals & anti-nutrients

- Vitamins
- Minerals
- Anti-nutrients
- Alternative sweeteners



# UNIT 5: Malnutrition

- Malnutrition (dietary excesses & deficiencies)
- Obesity
- Kwashiorkor
- Marasmus
- Diabetes
- Fiber – importance

# Ways to access Information on SBCH321

- <https://ksyed.weebly.com/>
  - Page: Teaching
- Google: Type “Khajamohiddin Syed”
  - Click on the first search : Google scholar page
  - Then click on “Homepage”
  - Page: Teaching
- Class representative