

COLLEGE OF  
**HEALTH  
SCIENCES**



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## CLINICAL NUTRITION AND DIETETICS DEPARTMENT

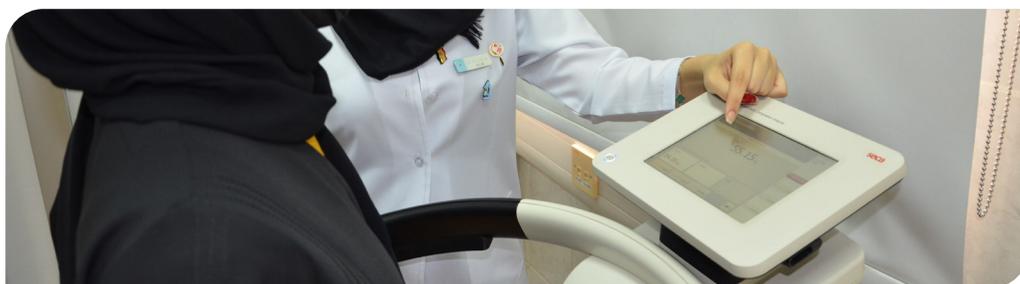
### Clinical Nutrition and Dietetics Laboratories

Lab Name	Location	Person in Charge	Programs Served	Courses Served
Nutrition Assessment Lab	W12-144	Salma Abu Qiyas	Clinical Nutrition & Dietetics Dept.	Nutrition Assessment
- Environmental Microbiology Lab - Food Microbiology Lab - Food Safety and Quality Lab	M12-130	Hanin Kassem	Clinical Nutrition & Dietetics Dept.	Food Microbiology
Food Processing & Preparation Lab	W12-146	Hanin Kassem	Clinical Nutrition & Dietetics Dept.	Food Processing & Preparation
Food Analysis Lab	W12-005	Radhiya Alrajaby	Clinical Nutrition & Dietetics Dept.	Food Analysis

### Clinical Nutrition and Dietetics Lab Staff

#	Name	Ext.	Email
1	Salma Jamal Abu Qiyas	065057562	sabuciyas@sharjah.ac.ae
2	Hanin Bassem Kassem	065057567	hkassem@sharjah.ac.ae
3	Radhiya Rashid Al Rajaby	065057574	ralrajaby@sharjah.ac.ae

## NUTRITION ASSESSMENT LABORATORY



Location	Lab Staff in Charge	Contacts
W12-144	Salma Jamal Abu Qiyas	065057562

### INTRODUCTION

Laboratory sessions complement the theory taught regarding different aspects of nutritional assessment such as: anthropometric, laboratory, clinical and dietary assessments including an evaluation of their strengths and limitations. The lab provides development of practical skills and active application of tools and techniques used for assessment of nutritional status.

### EQUIPMENT & INSTRUMENTS

- Weighing Scale
- Height Meter
- Skin Fold Calipers
- Measuring Tapes
- Body Composition Analyzer (BCA Machine) and Lookin' Body Basic Software
- Stethoscope
- Blood Pressure Instrument
- Stop Watch
- Diet Sheets/ Questionnaires/ Formats
- Simulated Food Models
- Step for Fitness Test
- ESHA Software for Nutrient Analysis
- Infantometer

### EXPERIMENTS

- Body Measurements: Standing Height, Circumferences (Head, Mid-Upper Arm, Chest, Waist, Hips, Wrist)
- Body Mass: Weight
- Body Composition: Skin Fold Thickness (Biceps, Triceps, Sub-Scapular, Supra-Iliac); Body

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#### Composition Through BCA Machine

- Blood Pressure
- Pulse Rate
- Nutritional Assessment Through Anthropometric Indices (Weight for Height, Height for Age and Weight for Age, Body Mass Index- BMI, Ideal Body Weight, Adjusted Body Weight, Body Frame Size, Waist Hip Ratio, Head to Chest Ratio)
- Nutritional Assessment in Hospitalized Condition and Weight Changes
- Energy Expenditure: Basal Energy Expenditure (BEE) Using Harris Benedict and Mifflin Equations
- Dietary Intake: 24-Hour Recall, Diet History, Food Frequency, Observation, Weighment Methods
- Nutrient Intakes Calculations Based on the Dietary Intake
- Functional Test Using a Step to Assess Fitness
- Clinical Assessment Through Examination of Clinical Signs from Head to Toe
- Hospital Visits to Collect Information on the Important Biochemical Parameters Used in Nutritional Assessment and Their Normal Ranges
- Effective Counseling: Demonstration of Nutritional Counseling and Mock Sessions

#### **TESTS & SERVICES**

- Body Composition Analysis
- Nutritional Assessment

## FOOD PROCESSING AND PREPARATION LABORATORY



Location	Lab Staff in Charge	Contacts
W12-146	Hanin Bassem Kassem	065057567

### INTRODUCTION

The Food Processing and Preparation Laboratory has a range of equipment and tools used for undergraduate student teaching. Practical training is combined with theoretical knowledge to equip students with the skills and scientific applications for food processing and preparation.

### EQUIPMENT & INSTRUMENTS

Kitchenette- working stations for students equipped with the tools required in the kitchen for processing and preparing food.

### EXPERIMENTS

- Measuring Techniques
- Methods of Cooking Including Moist Heat, Dry Heat & Microwave Cooking
- Sanitation in Food Processing and Preparation
- Vegetable's Cooking
- Cereals Cooking
- Fruit Cooking
- Meat and Poultry Cooking
- Milk and Milk Products
- Eggs and Custards
- Yeast Leavened Breads
- Butter Type Cakes

### TESTS & SERVICES

- Development of New Products

## FOOD ANALYSIS LABORATORY



Location	Lab Staff in Charge	Contacts
W12-005	Radhiya Alrajaby	065057574

### INTRODUCTION

The Food Analysis Laboratory is a special laboratory used for teaching undergraduate students. This lab introduces students to the methods of food chemistry analysis, its use and limitations. Procedures and instruments for the analysis of specific food components are demonstrated and practiced. Practical training focuses on the analysis of various food groups for their major and minor food components including their chemical separation, identification and quantification using classical and modern instrumental food analysis techniques.

### EQUIPMENT & INSTRUMENTS

- pH Meter
- Ovens
- Muffle Furnace
- Fiber Tech System
- Digital Colorimeter
- Analytical Balances
- Vacuum Oven
- Complete Soxhelt Unit
- Digital Refractometer

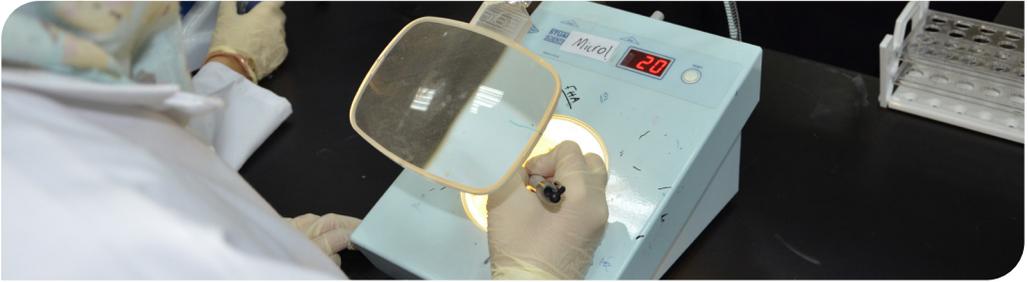
### EXPERIMENTS

- PH and Total Soluble Solids
- Ash
- Water Activity
- Carbohydrates
- Minerals
- Moisture
- Freezing Point
- Lipids
- Fiber
- Color

### TESTS & SERVICES

- Analysis of Food Composition

## FOOD MICROBIOLOGY LABORATORY



Location	Lab Staff in Charge	Contacts
M12-130	Hanin Bassem Kassem	065057567

### INTRODUCTION

The Food Microbiology Laboratory is used for teaching undergraduate students. This lab orients students to the basic activities in food microbiology and detection of specific microorganisms in food like bacteria, molds and yeast. Experiments include preparation of microbial culture, staining techniques, disinfection and sterilization, isolation of microbial cultures in specific foods. The students will learn how to enumerate and confirm a variety of food-borne bacteria and develop an understanding of factors affecting micro-flora of foods.

### EQUIPMENT & INSTRUMENTS

- PH Meter
- Normal Incubators
- CO2 Incubators
- Autoclave
- Stomacher
- Laminator Cabinet
- Analytical Balances

### EXPERIMENTS

- Food Sample Preparation
- Gram Staining
- Micro-Flora of Air
- Aerobic Counts in Foods
- Coliforms Detection
- Yeasts and Moulds in Foods
- Salmonella in Poultry
- Microbiology of Water

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- Processed Foods Examination: Canned Food, Cold, Frozen, and Fresh Foods
  - Spore Forming Bacteria in Dried Foods

### **TEST & SERVICE**

- Microbial Analysis
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