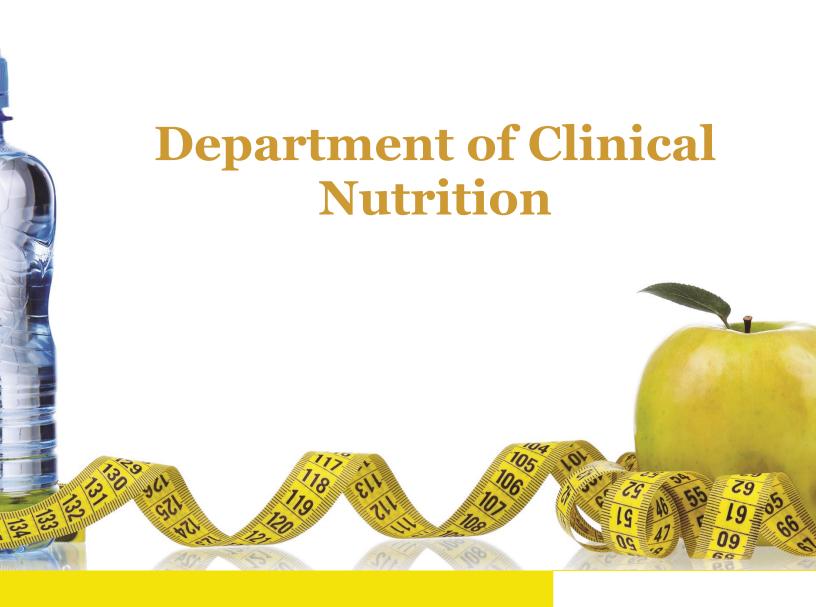
Kingdom of Saudi Arabia Ministry of Education University of Hail College of Applied Medical Sciences Department of Clinical Nutrition



Program Guide Bachelor's Degree



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1.1.Introduction

The Department of Clinical Nutrition is one of the four departments in the Faculty of Applied Medical Sciences. It was established in 1430 H / 2009 G to prepare graduates trained in nutrition and dietetics to satisfy the needs of the country. The purpose is to enhance the nutritional well-being and health of individuals, families, and populations through the promotion of scholarship in human nutrition and dietetics.

The BSc program in clinical nutrition offers courses in clinical nutritional sciences in order to provide sound academic background needed for study and practice of dietetics in hospitals, primary health care facilities, and institutional food services.

The proposed curriculum of BSc in Clinical Nutrition at the Department of Clinical Nutrition in the Faculty of Applied Medical Sciences is newly implemented. It is the outcome of the work of staff members of the Clinical Nutrition Department and the members of the curriculum committee. As no national education policy is regarding available competency standards for entry-level dietitians, regional local, and international similar BSc programs in clinical nutrition were revised while writing our proposed curriculum. Examples include local (King Saud University), regional (American University of Beirut, The University of Jordan, and United Arab Emirates University) and international accredited universities programs (by American Dietetic Association, British Dietetic Association and European Federation of the Association of Dietitians).

1.2. Goals and Objectives

The program goals are to utilize the university's human and technological resources, as well as highest quality standards to:

1. Prepare graduate equipped with the necessary skills to practice efficiently in the field of clinical nutrition.

2. Provide a supportive and motivating academic environment to develop student capabilities.

3. Promoting the role of scientific research in the field of clinical nutrition.

4. Contribute effectively in the community service in the field of clinical nutrition.

1.3. Mission Statement

To prepare distinguished graduate in the field of clinical nutrition that is compatible with the requirement and international standards within a good academic environment and promoting the scientific research to enhance the knowledge renaissance and the development of society.

1.4. Program Coordinators

| NAME | ROLE | EMAIL | CONTACT |
|-----------------------------|----------------------------------|--------------------------------|------------|
| Dr. Amir Mahjoub | Program coordinator | <u>Mahgoubamir22@gmail.com</u> | 0501350946 |
| Dr. Awfa Alazzah | Program coordinator | <u>awfaalazzeh@gmail.com</u> | 0567052206 |
| Dr. Nagat Eltoum | Program coordinator - Female | nagacademic0509@gmail.com | 0565570954 |
| Mrs. Syeda Bushra Fatima | Quality Coordinator - Females | syedafatima339@gmail.com | 0550225094 |

1.5. Faculty Members

| | Name | Rank | Email |
|----|-----------------------------------|----------------------|---------------------------------------|
| 1 | Dr. Amir Mahjoub Awadelkareem | Assocciate Professor | AM.ABDALLAH@UOH.EDU.SA |
| 2 | Nagat Eltoum | Assistant Professor | <u>NE.ELTOUM@UOH.EDU.SA</u> |
| 3 | Prof. Eyad Mohammed Alshammari | Professor | EYAD.ALSHAMMARI@UOH.ED <u>U.SA</u> |
| 4 | Abd Elmoneim Osman Elkhalifa | Professor | AO.ABDALLA@UOH.EDU.SA |
| 5 | Dr. Awfa Y. Alazzah | Assistant Professor | A.ALAZZEH@UOH.EDU.SA |
| 6 | Mona Hanafi Mahmoud Ahmed | | MON.AHMED@UOH.EDU.SA |
| 7 | Albandri Abdullah Benammar | Assistant Professor | AB.BENAMMAR@UOH.EDU.SA |
| 8 | Dr. Humera Banu | Assitant Professor | H.BANU@UOH.EDU.SA |
| 9 | Mrs.Syeda Bushra Fatima | Lecturer | B.SYEDA@UOH.EDU.SA |
| 10 | Syed Amir Ashraf | Lecturer | <u>S.AMIR@UOH.EDU.SA</u> |
| 11 | Shahida Banu Shamsuddeen | Lecturer | SS.BANU@UOH.EDU.SA |
| 12 | Osamah Alhelo | Administrator | O.ALHELO@UOH.EDU.SA |
| 13 | Sahr Alshammari | Administrator | SAHR.ALSHAMMARI@UOH.ED <u>U.SA</u> |
| 14 | Ghoson Alfagairi | Administrator | <u>G.ALFAGIRI@UOH.EDU.SA</u> |

ADDRESS OF THE DEPARTMENT

Department of Clinical Nutrition College of Applied Medical Sciences University of Hail P. O. Box: 2440, Hail, 81451 Kingdom of Saudi Arabia

1.6. Program Learning Outcomes

| Knowlee | dge and understanding |
|------------|---|
| K1 | Recognize concepts of basic, health and socioeconomic sciences that contribute to understanding food, nutrition, and dietetics practice. |
| K2 | Describe the role of food, nutrition, and environment in maintaining individuals and communities' normal health, disease prevention and management. |
| K3 | Explain structure and function of food services, nutrition departments and the role of a dietician in a multidisciplinary team in delivering quality food and nutrition services. |
| Skills | |
| S 1 | Utilize foundational sciences in addition to the basics of normal and abnormal body process to interpret the role of food and nutrients in health and disease. |
| S2 | Evaluate nutritional status of individuals and communities in various lifestyles and stages during health and disease. |
| S3 | Apply theories and knowledge to provision of quality food management functions in business, healthcare, community, and institutional arenas. |
| S 4 | Design community and patient centered evidence-based nutrition care plans based on sound scientific research and clinical reasoning. |
| S5 | Use dietetic information through acquired technical, interpersonal and communication skills |
| Values | |
| V1 | Commit to professional ethical standards in nutrition, dietetics, and related practice settings. |

1.7. Admission Requirements

Students entering the BSc program in clinical nutrition must meet all university and department admission requirements.

- 1. The applicant must submit a request of enrolment to the Deanship of Admission and Registration (electronic registration). Deadlines are announced in each academic year.
- 2. The applicant must be a Saudi citizen.
- 3. The applicant must meet the requirements to attend university.
- 4. The applicant should have a modern secondary school certificate (scientific section).
- 5. Exemplary success rate of the student at the secondary level as determined by the university to determine the capacity of the student to pass achievement test.
- 6. The applicant must pass a medical examination to prove that he/she is free of infectious diseases and physically/ mentally healthy to complete the program of study.
- 7. The applicant is required to submit official approval from the employer if an employee for full-time study to allow him to pursue study for years joining the university.
- 8. The applicant must have good conduct and reputation testimony of the school which he graduated from.
- 9. Pass the preparatory year with a grade point average (GPA) of 2.5 out of 4 according to the University of Hail grading system.

1.8. Graduation Requirements

The department offers a bachelor's degree (BSc) in Clinical Nutrition. The BSc in Clinical Nutrition is four years and one obligatory year for clinical practice (Internship Program). In order for a student to qualify for a BSc in Clinical Nutrition degree, he/she must successfully complete the total credit hour requirements (138 study units) including university requirements (36 study units), faculty requirement (15 study units) and departmental requirements (87 study units). In addition to graduate in clinical nutrition, a student must earn a grade of "D" (at least 60%) or

better in all required courses and successfully complete the obligatory training year for clinical practice (internship year).

2. STUDY PLAN

Our curriculum was developed to prepare our graduates with the following:

- Acquire the body of knowledge skills and attitude that will enable them to practice clinical nutrition with high standards.
- Demonstrate capability of undertaking advanced training in any branch of clinical nutrition.
- Demonstrate capability of directing his/her own learning.
- Acquire the habits necessary to maintain life-long learning.

Curriculum



| FIRST SEMESTER | | | | | | | |
|----------------|----------------------|------|------|-----|----|--|--|
| CODE | COURSE TITLE | CRED | LECT | LAB | СН | | |
| PENG 001 | Prep English 1 | 3 | 20 | 0 | | | |
| PENG 002 | Prep English 2 | 3 | 20 | 0 | | | |
| PBIO 121 | Preparatory Biology | 3 | 2 | 2 | | | |
| PCOS 001 | Prep Computer Skills | 2 | 2 | 0 | | | |
| PCSK 001 | Communication Skills | 2 | 2 | 0 | | | |
| PHYS 121 | Medical Physics | 3 | 2 | 2 | | | |
| TO | DTAL (CREDIT) | | 16 | | | | |

First Year – Preparatory Year

| SECOND SEMESTER | | | | | | |
|-----------------|---------------------------|------|------|-----|----|--|
| CODE | COURSE TITLE | CRED | LECT | LAB | СН | |
| PENG 003 | Prep English 3 | 3 | 20 | 0 | | |
| PENG 008 | Prep English 4 | 3 | 20 | 0 | | |
| PCHM 121 | Preparatory Chemistry | 3 | 2 | 2 | | |
| PMDC 101 | Medical Foundations | 2 | 2 | 0 | | |
| ARAB 101 | Arabic Language | 3 | 3 | 0 | | |
| IC 101 | Intro. to Islamic Culture | 2 | 2 | 0 | | |
| TO | DTAL (CREDIT) | | 16 | | | |

Second Year

| FIRST SEMESTER | | | | | | |
|----------------|---|-----|-----|-----|----|--|
| CODE | COURSE TITLE | Th. | Pr. | Tr. | СН | |
| CLN 205 | Vocational Health | 2 | - | - | 3 | |
| CLN 201 | Principles of Food Science & Nutrition | 2 | 1 | - | 3 | |
| BCH 204 | Biochemistry | 3 | 1 | - | 3 | |
| PHY 208 | Physiology | 2 | 1 | - | 3 | |
| ANA 208 | Anatomy | 1 | 1 | - | 2 | |
| IC102 | Islamic studies | 2 | - | - | 2 | |
| | TOTAL (CREDIT) | | 16 | | | |

| SECOND SEMESTER | | | | | | |
|-----------------|---------------------------------|-----|-----|-----|----|--|
| CODE | COURSE TITLE | Th. | Pr. | Tr. | СН | |
| CLN 202 | Nutritional Biochemistry | 2 | 1 | - | 3 | |
| PHT 205 | General Pathology | 2 | 2 | - | 2 | |
| CLN 221 | Nutritional Staus Assessment | 2 | 1 | - | 3 | |
| LN 204 | Nutrition During Life Cycle | 3 | 1 | - | 4 | |
| CLN 203 | Health Psychology | 2 | - | - | 2 | |
| BTS 211 | Biostatistics | 2 | - | - | 2 | |
| ARAB 102 | Arabic Writing | 2 | - | - | 2 | |
| | TOTAL (CREDIT) | 15 | 3 | - | 18 | |

Third Year

| FIRST SEMESTER | | | | | | |
|----------------|---|-----|-----|-----|----|--|
| CODE | COURSE TITLE | Th. | Pr. | Tr. | СН | |
| CLN 326 | Management of Nutrition Services & Dietetics | 2 | 1 | - | 3 | |
| CLN 313 | Food &Drug | 2 | 0 | - | 2 | |
| CLN 311 | Food Microbiology | 3 | 1 | - | 4 | |
| CLN 331 | Nutrition & Immunology | 2 | - | - | 2 | |
| CLN 322 | Nutrient Estimation | 2 | 1 | - | 3 | |
| IC103 | Islamic Studies | 2 | - | - | 2 | |
| | TOTAL (CREDIT) | 13 | 3 | - | 16 | |

| SECOND SEMESTER | | | | | | |
|-----------------|-----------------------------------|-----|-----|-----|----|--|
| CODE | COURSE TITLE | Th. | Pr. | Tr. | СН | |
| CLN 332 | Medical Nutrition Therapy (1) | 3 | 1 | - | 4 | |
| CLN 321 | Nutrition & Economy | 2 | - | - | 2 | |
| CLN 323 | Nutritional Epidemiology | 2 | - | - | 2 | |
| CLN 312 | Food Safety & Hygiene | 3 | 1 | - | 4 | |
| CLN 411 | Food Analysis | 2 | 1 | - | 3 | |
| CLN335 | Nutrition for Health & Fitness | 1 | 1 | - | 2 | |
| IC104 | Islamic Studies | 2 | - | - | 2 | |
| | TOTAL (CREDIT) | 15 | 4 | - | 19 | |

Fourth Year

| | FIRST SEMESTER | | | | | | |
|---------|---|-----|-----|-----|----|--|--|
| CODE | COURSE TITLE | Th. | Pr. | Tr. | СН | | |
| CLN 436 | Clinical Rotation in Medical Nutrition Therapy (1) | - | 6 | - | 6 | | |
| CLN 431 | Medical Nutrition Therapy (1) | 3 | 1 | - | 2 | | |
| CLN 432 | Professional Skills in Dietetic | 2 | 1 | - | 3 | | |
| CLN 433 | Research Methods in Health Sciences | 2 | 1 | - | 3 | | |
| CLN 435 | Student Research Project | - | 2 | - | 2 | | |
| | TOTAL (CREDIT) | 7 | 11 | - | 18 | | |

| | SECOND SEMESTER | | | | | | | |
|---------|---|------|------|-----|----|--|--|--|
| CODE | COURSE TITLE | CRED | LECT | LAB | СН | | | |
| CLN 438 | Clinical Rotation in Medical Nutrition Therapy (2) | - | 6 | - | 6 | | | |
| CLN421 | Community Nutrition | 2 | 1 | - | 3 | | | |
| CLN334 | Enteral & Parenteral Nutrition | 2 | 1 | - | 3 | | | |
| CLN 415 | Advanced Topics in Food Science and Nutrition | 2 | - | - | 2 | | | |
| CLN 437 | Metabolic & Genetic Nutritional Disorders | 2 | 1 | - | 3 | | | |
| CLN 422 | Food Habits & Social Concepts | 2 | 0 | - | 2 | | | |
| | TOTAL (CREDIT) | 10 | 9 | - | 19 | | | |

FIFTH YEAR

Internship Year

After completion of all required courses of the four academic years, the students have to spend a complete one year (12 months) in training and practicing clinical nutrition in a form of training rounds in approved hospital wards and specialized health centers, under joint academic supervision of the Clinical Nutrition Department in the Faculty of Applied

Medical Sciences and administrative supervision of the staff members of hospital wards and specialized health centers.

2.2. GRADUATES EMPLOYMENT OPPORTUNITIES

- Hospitals and other health care facilities educating patients about nutrition and administering medical nutrition therapy as part of the health care team.
- Dietitians may also manage the food service operations in these settings, as well as in day-care centers, and correctional facilities.
- Sports nutrition and corporate wellness programs educating clients about the connection between food, fitness, and health.
- Food and nutrition-related businesses and industries working in communications, consumer affairs, public relations, marketing, or product development.
- Private practice working under contract with health care or food companies, or in their own business. Dietitians may provide services to foodservice or food vendors, and distributors, or athletes, nursing home residents.
- Community and public health settings teaching, monitoring, and advising the public, and helping to improve their quality of life through healthy eating habits.
- Universities and medical centers teaching physicians, nurses, dietetics students, and others the sophisticated science of foods and nutrition.
- Research areas in food and pharmaceutical companies, universities, and hospitals, directing or conducting experiments to answer critical nutrition questions and find alternative foods or nutrition recommendations for the public.

3. COURSES DESCRIPTION

| COURSE TITLE | CODE/NO. | | CREDITS | | |
|---------------------|----------|-----|---------|-----|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Anatomy | ANA 208 | 2 | 1 | - | 3 |

<u>Course Description:</u>

Human Anatomy is a broad, survey course that provides students with a detailed examination of all structural aspects of the human body. The course is presented by systems (with regional approach) and allows students to learn and assimilate the morphology of different areas of the human body in an organized and logical fashion. Students are expected to become skilled at identification of anatomical structures and are also expected to become proficient at recognition of structural arrangements and structural relationships. This course aims to thoroughly acquaint the student with detailed studies and understanding of anatomical terms, anatomical structures, and functions of the human body.

| CODE/NO. | | | | |
|----------|-----|------------------|------------------|-------------|
| | Th. | Pr. | Tr. | СН |
| BCH 204 | 3 | 1 | - | 4 |
| | , | ⁷ In. | CODE/NO. Th. Pr. | in. Pr. Ir. |

Course Description:

Study of metabolic roles of macro- and micronutrients in the body using an integrated approach to explore the roles of nutrients in biochemical, physiological, and metabolic functions. Includes effects of metabolic diseases on physiology

| CODE/NO. | CREDITS | | DITS | |
|----------|---------|------------------|------------------|-------------|
| | Th. | Pr. | Tr. | СН |
| CLN 205 | 2 | - | - | 2 |
| | , | ['] 1h. | CODE/NO. Th. Pr. | in. Pr. Ir. |

<u>Course Description:</u>

This course is designed to describe the importance of health and safety. In addition, it gives comprehensive knowledge about occupational injuries and illnesses among health care workers and detailed guidelines for protecting their safety and health in hospitals and biochemical functions of the body.

| COURSE TITLE | | CODE/NO. | CREDITS | | | | |
|---------------------|------------|----------|---------|-----|----|---|--|
| COURSE IIILE | Th. | | Pr. | Tr. | СН | | |
| | Physiology | CLN 208 | 2 | 1 | - | 3 | |
| | Physiology | CLN 208 | 2 | 1 | - | | |

<u>Course Description:</u>

This course enables students to learn physiological concepts, control mechanisms and life processes as they relate to the biological nature of human beings.

| COURSE TITLE | CODE/NO. | CREDITS | | | | |
|---|----------|---------|-----|-----|----|--|
| COURSE IIILE | , | Th. | Pr. | Tr. | СН | |
| Principles of Food Science and Nutrition | CLN 201 | 3 | - | - | 3 | |
| | | | | | | |

Physiologic and chemical roles of carbohydrates, lipids, proteins, vitamins, minerals and water in the human body. Understanding of nutrition standards and relationship between foods and nutrients. Factors affecting absorption, utilization, and the need for nutrients.

| COURSE TITLE | CODE/NO. | | | | |
|---------------------|----------|-----|-----|-----|----|
| COURSE IIILE | | Th. | Pr. | Tr. | СН |
| Biostatistics | BTS 211 | 2 | - | - | 2 |

<u>Course Description:</u>

This course introduces basic statistical concepts, tools and techniques, without extensive mathematical development. It raises awareness of the uses of statistical techniques and facilitates their application to the Applied Medical Sciences. Starting from types of data, emphasis is put on quality control and validation of data sets and impact of errors on patient care is present

| CODE/NO. The Dry CHIDING | COURSE TITLE | |
|--------------------------|---------------------|---------------|
| Th. Pr. Tr. CH | COURSE IIILE | |
| CLN 202 2 1 - 3 | Biochemistry | Nutritional B |
| CLN 202 2 1 - | Biochemistry | Nutritional B |

Course Description:

This course aims to thoroughly acquaint the student with detail studies of metabolic roles of macro- and micronutrients in the body using an integrated approach to explore the roles of nutrients in biochemical, physiological, and metabolic functions.

| COURSE TITLE | COURSE TITLE CODE/NO. | | CREDITS | | | | |
|-----------------------------|-----------------------|-----|---------|-----|----|--|--|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН | | |
| Nutrition During Life Cycle | | 3 | 1 | - | 4 | | |

Course Description:

The nutritional needs of people in the various life stages and the life cycle groups are infancy, childhood, adolescence, adulthood, pregnancy, lactation, and elderly, from childhood until death, people have special nutritional requirements to assure health and growth. In addition, studying growth and developments and common problems and complications related to nutrition for each group. The benefit of breastfeeding and the nutrition requirement during infancy.

| COURSE TITLE | CODE/NO. | CREDIT | | DITS | |
|-------------------------------|----------|--------|-----|------|----|
| COURSE IIILE | | Th. | Pr. | Tr. | СН |
| Nutritional Status Assessment | CLN 224 | 2 | 1 | - | 3 |
| Course Decemintion. | - | | | | |

This course includes study and skills development in nutritional assessment and body composition assessment relevant to individual and population-based nutrition and dietetic practice. Key content areas include dietary assessment, anthropometry, laboratory and clinical methods.

| COURSE TITLE | CODE/NO. | CREDITS | | | | |
|---------------------|----------|---------|-----|-----|----|--|
| COURSE IIILE | | Th. | Pr. | Tr. | СН | |
| Health Psychology | CLN 203 | 2 | - | - | 2 | |

Course Description:

This course considers psychological theories, concepts, and applications. It will cover core areas of psychology including social psychology, cognitive psychology, biological psychology and abnormal psychology. The scientific research methods used by psychologists working in these fields will be explored within each of the core areas

| COURSE TITLE | CODE/NO. | CREDITS | | | |
|--------------|----------|---------|-----|-----|----|
| | | Th. | Pr. | Tr. | СН |
| Pathology | PTH 205 | 2 | - | - | 2 |
| | | | | | |

Course Description:

This course provides students with basic knowledge and general principles of general pathology. The objective of the course is to enable the student to understand, define, and apply basic facts and use appropriate terms in the field of clinical nutrition

| COURSE TITLE | CODE/NO. | CREDITS | | | |
|-------------------|----------|---------|-----|-----|----|
| | | Th. | Pr. | Tr. | СН |
| Food Microbiology | CLN 311 | 3 | 1 | - | 4 |
| ~ - • • | | | | | |

Course Description:

This course covers the basic concepts, principles and techniques of medical microbiology and parasitology. It looks at the domains of bacteria, viruses, fungi, parasites, and microbial diseases. Students will be introduced to human infections caused by the main groups of bacterial, viral, parasitic, and fungal pathogens and the mechanisms of disease causation.

| COURSE TITLE | CODE/NO. | CREDIT | | DITS | |
|--------------------------|----------|--------|-----|------|----|
| COURSE IIILE | | Th. | Pr. | Tr. | СН |
| Nutrition and Immunology | CLN 331 | 2 | - | - | 2 |
| Course Decorintions | • | | • | • | |

This course will concentrate on current understanding of the interactions between nutrition and immunity, emphasizing the mechanisms of action of the nutrients concerned and the impact on human health.

| COURSE TITLE | CODE/NO. | CREDITS | | | |
|----------------------|----------|---------|-----|-----|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Nutrition Estimation | CLN 321 | 2 | 1 | - | 3 |

<u>Course Description:</u>

This course introduces the student to the importance of food and a well-balanced diet. Also, description of nutrients, their sources, functions, and the daily requirements for different age groups.

| COURSE TITLE | CODE /NO | CREDITS | | | |
|---------------------|----------|---------|---------|----|---|
| COURSE IIILE | CODE/NO. | Th. | Pr. Tr. | СН | |
| Food and Drugs | CLN 313 | 2 | - | - | 2 |
| | | | • | | • |

Course Description:

This course describes the importance of food-drug interactions on drug action and the effect of drugs on the nutritional status together with mechanisms of these interactions.

| COURSE TITLE | CODE/NO. | CRE | DITS | | |
|--|----------|-----|------|-----|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Management of Nutrition Services and Dietetic | CLN 326 | 2 | 1 | - | 3 |

Course Description:

The planning, operation, management, and evaluation of foodservice play an important role in providing essential services in a range of settings. This course will critically examine and contrast the efficient processes involved in the provision of food and nutrition services.

| COURSE TITLE | CODE/NO. | | CRE | DITS | |
|--|-------------------|-----------|-----------|-----------|-----------|
| COURSEITTLE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Food Safety and Hygiene | CLN 312 | 3 | 1 | - | 4 |
| Course Description: | | | | | |
| The course will discuss the backgroun | nd to food safety | and deal | l with pr | oblems re | elated to |
| genetically engineered food, chemicals | s in the food cha | in, micro | bial toxi | ns and fo | odborne |

disease and natural toxins.

| COURSE TITLE | CODE/NO. | CREDITS | | DITS | |
|---------------|----------|----------------|---------|------|---|
| COURSE IIILE | CODE/NO. | Th. | Pr. Tr. | СН | |
| Food Analysis | CLN 411 | 2 | 1 | - | 3 |
| | | | | | |

This course introduces the experimental procedures required for food analysis. Preparation of samples and reagents for analysis will be covered in terms of appropriate methods and safety aspects. The gross analysis of foods (moisture, fat, protein, ash and visual assessment...) will be covered. The principles used in the measurement of color used for solids and liquids will be studied. A range of separation techniques will be considered both as techniques for analysis and for food purification

| COURSE TITLE | CODE/NO. | CREDITS | | | |
|-----------------------|----------|---------|-----|-----|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Nutrition and Economy | CLN 321 | 2 | - | - | 2 |
| | | | | | |

Course Description:

This course will provide a detailed study of food availability, access, and distribution among households in relation to food security nutrition and environment. Emphasis will be on understanding of the inter-linkages among food security, nutrition, and environment

| COURSE TITLE | CODE/NO. | CREDITS | | | |
|---------------------------|----------|---------|-----|-----|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Medical Nutrition Therapy | CLN 331 | 3 | 1 | - | 4 |
| | | | | | |

Course Description:

This course is an integration of pathophysiology, biochemistry, anatomical and nutrition concepts that form the basis for medical nutrition therapy in health care. A study of nutrition status and assessments; nutrition care strategies; and the modification of normal food intake with emphasis on dietary adjustments necessitated by certain disease and disorder processes and conditions focusing on the hospitalized and/or ambulatory patient

| COURSE TITLE | CODE/NO. | | CRE | DITS | |
|-------------------------------------|----------|-------------|-----|------|---|
| COURSE IIILE | CODE/NO. | Th. Pr. Tr. | СН | | |
| Nutrition For Health and Fitness | CLN 335 | 2 | 1 | - | 3 |
| | • | | | | |

Course Description:

This course identifies the nutrition as a tool for achievement of optimal health and maximum fitness for all ages and genders.

| COURSE TITLE | CODE/NO. | CREDITS | | DITS | |
|--------------------------|----------|---------|-----|------|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Nutritional Epidemiology | CLN 323 | 2 | - | - | 2 |
| Course Decorintion. | | | | | |

This course introduces the fundamental principles and practices of epidemiology in public health. Students will examine basic epidemiological concepts and methods, explore their application, perform elementary epidemiological reviews and critiques, and reflect in the role of epidemiology in public health.

| CODE /NO | CREDITS | | | |
|----------|---------------------|----------|------------------|----------------------|
| CODE/NO. | Th. | Pr. | Tr. | СН |
| CLN 431 | 3 | 1 | - | 4 |
| | CODE/NO. CLN 431 | <u> </u> | CODE/NO. Th. Pr. | CODE/NO. Th. Pr. Tr. |

Course Description:

This course is an integration of pathophysiology, biochemistry, anatomical and nutrition concepts that form the basis for medical nutrition therapy in health care. A study of nutrition status and assessments; nutrition care strategies; and the modification of normal food intake with emphasis on dietary adjustments necessitated by certain disease and disorder processes and conditions focusing on the hospitalized and/or ambulatory patient.

| CODE/NO CREDIT | | CODE/NO | DITS | |
|----------------|---------------------|---------|------------------|----------------------|
| CODE/NO. | Th. | Pr. | Tr. | СН |
| CLN 432 | 2 | 1 | - | 3 |
| | CODE/NO. CLN 432 | , în. | CODE/NO. Th. Pr. | CODE/NO. Th. Pr. Tr. |

Course Description:

This course is detailed study of the role of dietician in modern health care system and application of interviewing, counseling, and educational techniques in dietetics

| COURSE TITLE | CODE/NO. | CREDITS | | | | |
|--|----------|---------|-----|-----|----|--|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН | |
| Research Methods in Health Sciences | CLN 433 | 2 | 1 | - | 3 | |

Course Description:

This course is to assist students to improve their understanding of, and capabilities in, the research design, planning and implementation processes. A key element of the course is the opportunity to construct a research proposal that would assist in the preparations relating to the conduct of senior student research project.

| COURSE TITLE | CODE /NO | | CREDITS | | |
|---|----------|-----|---------|-----|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Clinical Rotation in Medical Nutrition Therapy (1) | CLN 436 | - | - | 6 | 6 |
| | | | | | |

This course is the core course relevant to the clinical application of nutrition and dietetics knowledge and skills. It includes supervised individualized experience in clinical dietetics (needs assessment, nutrition care plan development, case study and documentation)

| COURSE TITLE | CODE /NO | CREDITS | | | | |
|--------------|--------------------------|----------|-----|-----|-----|----|
| | COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| | Student Research Project | CLN 435 | - | 2 | - | 2 |
| | Student Research Project | CLN 435 | - | 2 | - | • |

Course Description:

In this course students will work with a faculty member or selected senior staff in the hospital to select a topic of interest to the student and must be related to clinical nutrition. The student will be encouraged to integrate information and data acquired in the research with the information gained from his literature search to provide the basis for his/her final project report seminar.

| COURSE TITLE | CODE/NO. | CREDITS | | CODE /NO CRE | DITS | |
|---------------------|----------|---------|-----|-------------------|------|--|
| COURSE IIILE | CODE/NO. | Th. | Pr. | EDITS Tr. - | СН | |
| Community Nutrition | CLN 421 | 2 | 1 | - | 3 | |
| Course Decorintion. | · · | | | | | |

Course Description:

This course will provide detailed study of nutrition-related problems in the community and the various resources, activities, agencies, and programs involved in health promotion and disease prevention and the important role of dietitians in the community and their interaction with other primary health care workers a CLN 437 and voluntary organizations.

| COURSE TITLE | CODE/NO. | | | | |
|--------------------------------------|----------|-----|-----|-------------------|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | EDITS Tr. - | СН |
| Enteral and Paraenteral Nutrition | CLN 334 | 2 | 1 | - | 3 |

Course Description:

This course is designed to explore nutrition support strategies and to provide dietitians with skills and knowledge to design assess and monitor routine enteral and parenteral feeding regimens.

| COURSE TITLE | CODE/NO | | CREDITS | | |
|--|----------|-----|---------|-----|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Advanced Topics in Food Science and Nutrition | CLN 415 | 2 | - | - | 2 |
| Commo Dogonintions | | | · | | |

This course describes some important advanced topics in nutrition and food sciences and student gain greater understanding of how these topics affect health and illness.

| COURSE TITLE | CODE/NO | CREDITS | | | |
|--|----------|---------|-----|-----|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Metabolic and Genetic Nutritional Disorders | CLN 437 | 2 | 1 | - | 3 |

Course Description:

This course describes genetic changes which take place in inherited diseases and explain the important role of dietetic therapy, screening, diagnosis, and genetic counseling of genetic and metabolic disorders.

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|-------------------|--------|
| EDITS Tr. - | СН |
| - | 2 |
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Course Description:

This course is detailed study of the historical, social, psychological, economic, religious, and aesthetic significance of food customs in various cultures and societies. Fulfills multicultural, social and behavioral requirements for individual or Group.

| COURSE TITLE | CODE/NO. | | CRE | DITS | |
|---|----------|-----|-----|------|----|
| COURSE IIILE | CODE/NO. | Th. | Pr. | Tr. | СН |
| Clinical Rotation in Medical Nutrition Therapy (2) | CLN 438 | - | - | 6 | 6 |

Course Description:

This course is the core course relevant to the clinical application of nutrition and dietetics knowledge and skills. It includes supervised individualized experience in clinical dietetics (needs assessment, nutrition care plan development, case study and documentation).