University of Hafar Al-Batin
College of Applied Medical Sciences – Department of Clinical Nutrition

Clinical Nutrition Program Handbook

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Clinical Nutrition Program Handbook

Introduction

This handbook serves as a comprehensive guide for students enrolled in the Bachelor of Clinical Nutrition Program at the University of Hafar Al-Batin. It outlines essential academic information, program structure, policies, student services, and other key resources to help students successfully navigate their academic journey. Students are encouraged to refer to this handbook regularly and consult their academic advisor for additional guidance.

About the Department of Clinical Nutrition

The Department of Clinical Nutrition is the newest department within the College of Applied Medical Sciences, established in 2018 and dedicated exclusively to female students. The program equips students with foundational knowledge and practical skills in clinical nutrition to meet the growing demand for specialists in healthcare and public health sectors, both locally and internationally.

Program Vision, Mission, and Objectives

Vision:
To achieve leadership and creativity in clinical nutrition through practice, research, and community service.

Mission:
To provide quality education grounded in evidence-based knowledge and professional skills, aimed at enhancing nutritional services in the Saudi community.

Program Objectives:

- Deliver optimal education in clinical nutrition.
- Promote evidence-based scientific research.
- Apply ethical clinical judgment, critical thinking, and interprofessional collaboration.
- Participate in community health promotion and disease prevention.
- Encourage communication and continuous professional development.

Program Learning Outcomes (Aligned with NQF)

Upon completion of the program, graduates will be able to:

- Demonstrate comprehensive knowledge of nutritional sciences and clinical applications.
- Conduct nutritional assessments and develop evidence-based dietary interventions.
- Collaborate effectively within healthcare teams.
- Exhibit professional ethics and patient-centered care.
- Contribute to community health promotion and research.

Program learning Outcomes	
Knowledge and understanding	
K1	• Recognize facts, concepts, and principle of theoretical scientific knowledge in all areas of the clinical nutritional sciences and other relevant disciplines.
K2	• Explain the processes of assessment, diagnosis, planning, implementation and evaluation in clinical nutrition and other relevant disciplines.
K3	• Identify nutritional status and its related diseases in various groups considering their prevalence, health promotion and prevention along the life span.
• **Skills**	
S1	• Apply the nutritional assessment, physiological changes and associated nutritional requirements throughout the life cycle in both health and disease.
S2	• Integrate critical thinking and scientific research using the appropriate methodology and technology to improve the nutritional status of all community groups.
S3	• Use various tools for nutritional assessment for healthy population and patients by evaluating their benefits and risks of pharmaco-nutrients and dietary supplements.
S4	• Communicate with healthy people, patients and interdisciplinary team members using the various communication methods for the purpose of effective nutrition care process.
S5	• Employ accurate and quality analysis, cultural, social, ethnic, and environmental dimensions measuring and assessing in various practice settings.
• **Values**	
V1	• Adhere to the professional Code of Ethics, Standards of Practice, principles of safety, and institutional policies in the healthcare settings.
V2	Demonstrate leadership, professional autonomy, and collaboration with the multidisciplinary team to enhance self-development.

Admission Requirements

- Completion of the Preparatory Year (Health Track) as per university guidelines.
- Selection into the program based on cumulative GPA and student preferences.

Graduation Requirements

To graduate with a Bachelor of Clinical Nutrition, students must complete:

Requirement	Credit Hours
University Requirements (6 courses)	12 hrs
College Requirements (8 courses)	23 hrs
Department Requirements	90 hrs
Total	**125 hrs**
Internship Year (12 months)	50 weeks

A cumulative GPA of **2.00 out of 5.00** is required.

Curriculum Structure and Study Plan

Students progress through four years (seven levels), followed by a 12-month internship.

Study Plan and Course Descriptions

The Bachelor of Clinical Nutrition Program consists of a structured sequence of courses distributed across four academic years (seven levels), followed by a mandatory one-year internship. Below is the full study plan, including course titles, credit hours, prerequisites, and summaries.

First Year

Level 1 (First Semester)

- Introduction to Food Sciences and Nutrition (3 CR)
- Medical Terminology (2 CR)
- Applied Calculus (3 CR)
- Biology in Health Sciences (3 CR)
- Chemistry in Health Sciences (3 CR)
- Introduction to Academic Discourse (3 CR)
- Belief and Its Consequences (2 CR)

Level 2 (Second Semester)

- Biostatistics (3 CR)
- Anatomy and Physiology I (3 CR)
- Biochemistry (4 CR)
- Microbiology (3 CR)
- Introduction to Report Writing (3 CR)
- Practical Grammar (2 CR)

Second Year

Level 3 (First Semester)

- Psychology (3 CR)
- Anatomy and Physiology II (3 CR)
- Macronutrient Metabolism (3 CR)
- Nutrition Across the Life Cycle (3 CR)
- Organic Chemistry (3 CR)
- Professional Ethics (2 CR)
- Writing for Professional Needs (2 CR)

Level 4 (Second Semester)

- Medical Nutrition Therapy I (4 CR)
- Micronutrient Metabolism (3 CR)
- Food Safety and Environmental Health (4 CR)
- Food Habits and Beliefs (2 CR)
- Nutrient Calculation (2 CR)

Third Year

Level 5 (First Semester)

- Medical Nutrition Therapy II (4 CR)
- Community Nutrition (3 CR)
- Food Analysis (3 CR)
- Metabolism & Genetic Nutrition Disorders (2 CR)
- Enteral & Parenteral Nutrition (2 CR)
- Nutritional Epidemiology (2 CR)
- Human Rights in Islam (2 CR)
- Oral Communication Skills (2 CR)

Level 6 (Second Semester)

- Functional Foods (3 CR)
- Food Services & Management (3 CR)
- Clinical Nutrition Practice I (5 CR)
- Research Methods of Nutrition (2 CR)

- Elective I (3 CR) *(choice from approved electives)*

Fourth Year

Level 7 (First Semester)

- Nutritional Education & Counseling (3 CR)
- Nutritional Assessment (4 CR)
- Clinical Nutrition Practice II (5 CR)
- Nutritional Sports (2 CR)
- Graduation Project (1 CR)
- Elective II (3 CR) *(choice from approved electives)*

Elective Courses (Examples)

- Nutrition Biotechnology (3 CR)
- Obesity and Weight Management (3 CR)
- Nutrition and Drugs (3 CR)
- Advanced Topics in Food Sciences and Nutrition (3 CR)
- Nutrition Toxicology (3 CR)
- Maternal and Child Nutrition (3 CR)

Note: Full course descriptions—including learning outcomes, prerequisites, and assessments—are available in the Course Catalog

Detailed Study Plan Tables

STUDY PLAN - BACHELOR'S PROGRAM

FIRST YEAR (Freshman Year)														
First Semester (Level I)							Second Semester (Level II)							
COURSE		TITLE	LT	LB	CR	Pre	COURSE		TITLE	LT	LB	CR	Pre
CLN	111	Introduction to Food Sciences and Nutrition	3	0	3	None	STAT	114	Biostatistics	3	0	3	MATH 002
MED	112	Medical Terminology	2	0	2	None	MED	122	Anatomy and Physiology I	2	3	3	BIOL 115
MATH	132	Applied Calculus	3	0	3	MATH 002	CHEM	124	Biochemistry	3	3	4	CHEM 116
BIOL	115	Biology in Health Sciences	2	3	3	None	BIOL	125	Microbiology	2	3	3	BIOL 115
CHEM	116	Chemistry in Health	2	3	3	None	ENGL	102	Introduction to Report	3	0	3	ENGL 101

		Sciences							Writing					
ENGL	101	An Introduction to Academic Discourse	3	0	3	None	ARB	101	Practical Grammar	2	0	2	None
SLM	183	Belief and its consequences	2	0	2	None							
Total			**17**	**6**	**19**		**Total**			15	9	18	

SECOND YEAR (Sophomore Year)

First Semester (Level III)

COURSE		TITLE	LT	LB	CR	Pre
PSY	211	Psychology	3	0	3	None
MED	212	Anatomy and Physiology II	2	3	3	MED 122
CLN	213	Macronutrient Metabolism	2	3	3	CHEM 124 CLN 111
CLN	214	Nutrition Across Life Cycle	2	3	3	CLN 111
CHEM	215	Organic Chemistry	2	3	3	CHEM 116
SLM	284	Professional Ethics	2	0	2	SLM 183
Total			**13**	**12**	**17**	

Second Semester (Level IV)

COURSE		TITLE	LT	LB	CR	Pre
CLN	221	Medical Nutrition Therapy I	3	3	4	MED 212
CLN	222	Micronutrient Metabolism	2	3	3	CLN 213
CLN	223	Food Safety & Environmental Health	3	3	4	CLN 213
CLN	224	Food Habits & Beliefs	2	0	2	None
CLN	225	Nutrient Calculation	1	3	2	MATH 132
ARB	201	Writing for Professional Needs	2	0	2	ARB 101
Total			**13**	**12**	**17**	

THIRD YEAR (Junior Year)

First Semester (Level V)

COURSE		TITLE	LT	LB	CR	Pre
CLN	311	Medical Nutrition Therapy II	3	3	4	CLN 221
CLN	312	Community Nutrition	2	3	3	CLN 223
CLN	313	Food Analysis	2	3	3	CLN 222 CHEM 215

Second Semester (Level VI)

COURSE	TITLE	LT	LB	CR	Pre
CLN	Functional Foods	2	3	3	CLN313
CLN	Food Services & Management	1	6	3	CLN311 CLN 315
CLN	Clinical Nutrition Practices I	2	9	5	CLN 311

CLN	314	Metabolism & Genetic Nutrition Disorders	1	3	2	CLN 221	CLN	Research Methods of Nutrition	2	0	2	STAT 114
CLN	315	Enteral & Parenteral Nutrition	1	3	2	CLN 225	CLN	CLN Elective I	3	0	3	
CLN	316	Nutritional Epidemiology	2	0	2	None	SLM	Human Rights in Islam	2	0	2	SLM 284
ARB	302	Oral Communication Skills	2	0	2	ARB 201						
Total			**13**	**15**	**18**		**Total**		**12**	**18**	**18**	

FOURTH YEAR (Senior Year)

1ST Semester (Level VII)

COURSE		**TITLE**	**LT**	**LB**	**CR**	**Pre**
CLN	411	Nutritional Education and Counselling	3	0	3	CLN 321 CLN 322
CLN	412	Nutritional Assessment	2	6	4	CLN 323
CLN	413	Clinical Nutrition Practices II	2	9	5	CLN 323
CLN	414	Nutritional Sports	2	0	2	None
CLN	415	Graduation Project	0	3	1	CLN 324
CLN	4XX	CLN Elective II	3	0	3	
Total			**12**	**18**	**18**	

TOTAL CREDITS: (125)

INTERNSHIP YEAR (Field Training for 12 Months)

COURSE DESCRIPTION

FIRST YEAR – 1st SEMESTER - 1st LEVEL

CLN 111: Introduction to Food Science and Nutrition (3-0-3)

This course discusses the 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. Topics include food composition and nutrition classes, sources, function, digestion & absorption, and metabolism.

Pre-requisite: None

MED 112: Medical Terminologies (2-0-2)

This course introduces prefixes, suffixes, and word roots used in the language of medical science. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell and define medical terms as related to selected body systems and their pathological disorders.

Pre-requisite: None

MAT 132: Applied Calculus (3-0-3)

The derivative. Rules for differentiation. Derivative of logarithmic, exponential, and trigonometric functions. Differentials. Growth and decay models. Definite and indefinite integrals. Techniques of integration. Integrals involving logarithmic, exponential and trigonometric functions. Integration by tables. Area under a curve and between curves. Functions of several variables. Partial derivatives and their applications to optimization.

Pre-requisite: One-year preparatory mathematics

BIOL 115: Biology in Health Sciences (2-3-3)

This course is designed to introduce the students to scientific process and production of biological knowledge with special emphasis on important concepts and principles common to health sciences. Topics include prokaryotic & eukaryotic cells, cellular respiration, transportation, tissue types, body systems, Apoptosis and mutations. Lab experiences Includes microscopy, preparation of slides and both gross & microscopic examination of cells and their contents.

Pre-requisite: None

CHEM 116: Chemistry in Health Sciences (2-3-3)

This course provides students a deep understanding in chemistry of biological compounds where relevant topics will be applied to illustrate the centrality of chemistry in life sciences with

emphasis on link between chemistry and health. Topics include gases, concentration of solutions and dilution and their link to health, energy, nuclear chemistry, acids, bases and equilibrium, amino acids, proteins, enzymes and lipids.

Pre-requisite: None

ENGL 101: An Introduction to Academic Discourse (3-0-3)

Introduction to academic writing and reading: Writing process, draft writing, peer editing, and error recognition and correction. Writing styles covered: definition, description, exemplification, comparison, causal analysis, and argumentation. Organizational and grammatical elements. Improvement of reading skills; comprehension, skimming, scanning, meaning from context, lexis and acquisition of academic vocabulary.

Pre-requisite: None

SLM 183: Belief and Its Consequences (2-0-2)

The roots of the true faith. Special characteristics of Islamic faith. The Islamic view of the universe, mankind and life. Means for enrichment of life and beliefs.

Prerequisite: None

FIRST YEAR – 2nd SEMESTER - 2nd LEVEL

STAT 114: Biostatistics (3-0-3)

This course introduces students to methods and concepts of statistical analysis and sampling, with special focus to those occurring in biological sciences. Topics include descriptive measures, probability and distributions, estimation, tests of hypotheses, types of error, significance, confidence levels, sample size and power.

Pre-requisite: One-year preparatory mathematics

MED 122: Anatomy and Physiology I (2-3-3)

This course is the first of two-course sequence that is designed to provide the student with basic knowledge of the normal anatomy, structure and functions of the human body and how it affects health and wellbeing. Topics include cell physiology, integumentary, skeletal, muscular, nervous and sensory systems. Emphasis is on the mechanisms of interaction between structure and function, which maintain homeostasis in the human body.

Pre-requisite: BIOL 115

CHEM 124: Biochemistry (3-3-4)

This course will introduce students to the fundamental biochemical principles that underlie cell function and properties of biomolecules, including importance of carbohydrates, lipids , proteins, nucleic acids, and vitamins as well as the metabolic pathways involved in their synthesis,

degradation and alterations in selected diseases. Definitions, properties, reactions, and factors affecting enzymes in addition to their functions, importance, and sources of the ways to convert amino acids to specialized products, as well as nucleotide metabolism, and carbon skeletons metabolism also will be covered in this course. Throughout the course, the quality assurance measures required to ensure reliability and validity of the laboratory results will also be emphasized.

Pre-requisite: CHEM 116

BIOL 125: Microbiology (2-3-3)

This course covers the general principles of microbiology including classification of different groups of microbes, morphology of each group and study of their characters. Topics include microscopy, survey of various microbes, the immune system, microbial pathogens and mechanisms of disease transmission.

Pre-requisite: BIOL 115

ENGL 102: Introduction to Report Writing (3-0-3)

Introduction to process of report writing: theme-based and basic library research, finding, note taking, paraphrasing, summarizing text and illustrations, and referencing, MLA or APA. Critical thinking: independent research, group discussions and presentations. Mechanics of writing: functional grammar, lexis, punctuation, and organization.

Pre-requisite: ENGL 101

ARB 101: Practical Grammar (2-0-2)

Selection of aspects of Arabic grammar essential for written and spoken communication in everyday life with emphasis on correct grammar usage.

Prerequisite: None

SECOND YEAR – 1st SEMESTER – 3rd LEVEL

PYS 211: Psychology (3-0-3)

This course designs to assist the student to understand and apply the basic principles of psychology. Topics include basic knowledge necessary for understanding human behavior & needs, personality, motivation, perception, attitude & intelligence, theories of personality, and its implications for all human body.

Pre-requisite: None

MED 212: Anatomy and Physiology II (2-3-3)

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Upon completion, students should be able to demonstrate an in-depth

understanding for principles of anatomy and physiology and their interrelationships. Topics include anatomical functions and physiology of body systems as respiratory, urinary, immune, endocrine control of metabolism & growth, as well as blood & gas exchange in lungs and tissues, glucose metabolism, and fluid & electrolyte balance. Laboratory work includes the study of dissected preserved specimens, microscopic study, physiologic experiments and multimedia presentations.

Pre-requisite: MED 122

CLN 213: Macronutrients Metabolism (2-3-3)

This course is the first of two-course sequence that helps students to understand how carbohydrates, fats and proteins function in the body. This course will also explain how each macronutrient, alone and when combined undergoes integrated metabolism within tissues. The effect of macronutrients on the overall metabolism, disease risk and recovery will also be included. It emphasizes the integration of macronutrients in whole-body metabolism, regulation of energy expenditure, food intake, metabolic adaptations, and gene expression, and related diseases.

Pre-requisite: CLN 111 and CHEM 124

CLN 214: Nutrition across the Life Cycle (2-3-3)

This course covers nutrition during critical stages of the life cycle from the time individuals are in the womb during pregnancy to become older adults. The nutritional needs for normal growth and development, as well as the consequences of under- or over-nutrition at critical life stages and major interventions. This course will discuss the role of lifestyle and demographics factors at various life stages. It provides recognition of the relationships among the physiological, biochemical, psychological, and sociological factors that affect nutrient requirements and recommendations over the life cycle.

Pre-requisite: CLN 111

CHEM 215: Organic Chemistry (2-3-3)

This course covers the content of organic chemistry in more details than the prerequisite course, with special emphasis on the nomenclature, reactions, mechanisms, preparation, applications and uses of organic compounds (alcohol, ethers, carbonyl containing compounds, amines and phenols) and on the organic chemistry of biological compounds. Laboratory work includes synthesis and spectroscopic techniques of organic compounds.

Pre-requisite: CHEM 116

SLM 284: Professional Ethics (2-0-2)

Importance of ethics in Islam and the integration of worship and aspects of professional life. Suitability criteria for employment in Islam. Standards for professional behavior. Employee interaction with others. Application of Islam to professional violations. Saudi Laws and professional behavior.

Prerequisite: GS 183

SECOND YEAR – 2nd SEMESTER – 4TH LEVEL

CLN 221: Medical Nutrition Therapy I (3-3-4)

This course intends to provide students with knowledge and application in dietary prevention, treatment, and therapeutic long-term management. It focuses on the nutrition care process, screening, assessment, and management of diseases. Topics include nutrition counseling and communication skills, clinical laboratory values, drug therapy, dietary menu planning, and evaluating nutritional status of obesity, diabetes, cardiovascular, pulmonary, malnutrition, endocrine, renal and gastrointestinal disorders. The practical part of this course emphasizes the appropriate methods for screening patients for nutritional risk, and therapeutic methods of management.

Pre-requisite: MED 212

CLN 222: Micronutrient Metabolism (2-3-3)

This course provides a continuation of the comprehensive study of the macronutrients metabolism. It covers the cell biochemistry and physiology-emphasizing metabolism of vitamins and minerals including antioxidant protection, immune function, nutrient control of gene expression, and disease states induced by deficiencies (e.g., iron-deficient anemia).

Pre-requisite: CLN 213

CLN 223: Food Safety & Environmental Health (3-3-4)

This course includes types, sources, causes of food contaminants, as well as the contributing factors and prevention of foodborne diseases and food poisoning. It also covers food additives, which are extensively used in food industry including their economic and public health impact with different food processing technologies from the public health point of view. Additionally, it provides a broad overview of some of the most important and current challenges to human health from the environment. The practical learns the students the basic concepts and skills to assess, control, and prevent these challenges in environmental health.

Pre-requisite: CLN 213

CLN 224: Food Habits and Beliefs (2-0-2)

This course provides a 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 individuals or groups.

Pre-requisite: None

CLN 225: Nutrient Calculation (1-3-2)

This course studies the methods of estimating nutrients needed in case of health and various cases of diseases. The course study different formulas to calculate nutrients. In the practical part of the course, the student learns the modern methods to estimate dietary requirements and food exchange for individuals. Moreover, the student will be exposed to the diet analyses software programs to learn how to use this programs in determining individual consumption of nutrients.

Pre-requisite: MATH 132

ARB 201: Writing for Professional Needs (2-0-2)

Characteristics and types of formal writing: reports; scientific research; summaries; forms; résumé; evaluations and minutes of meetings.

Prerequisite: GS 101

THIRD YEAR – 1ST SEMESTER – 5TH LEVEL

CLN 311: Medical Nutrition Therapy II (3-3-4)

In this course, the students study in depth the prevention and treatment of clinical diseases and disorders including etiology & pathophysiology, pharmacotherapeutics nutrition and drug therapy as it relates to client care. As well as the nutrition care process including assessment, diagnosis, nutrition intervention planning, intervention evaluation and outcome management. It focuses on the treatment of metabolic stress cases (e.g. burns, surgery, cancer, inflammatory bowel disease, critically ill & Trauma). The practical part teach the student how to write a nutrition report, and to be more familiar with the diet therapy of the diseases that covers in the theoretical part of the course.

Pre-requisite: CLN 221

CLN 312: Community Nutrition (2-3-3)

This course introduces the role of nutrition in promoting, maintain and improving health in the community. It discusses teaching and learning theory related to how community nutrition professionals might promote positive health behavior change in individuals and communities. It covers the importance of cultural competence in community nutrition as well as nutritional care programs available for mothers, infants, children, adolescents, and the elderly.

Pre-requisite: CLN 223

CLN 313: Food Analysis (2-3-3)

This course examines the components in foods with analytical measurement as the primary focus. It emphasizes the standard methods for chemical analysis of nutrients, chemicals in foods & food products. The laboratory part includes sampling techniques, food analysis, and determination of food components such as moisture, protein, fat, vitamins and minerals. The instruments are used in food analysis, sampling of food, data reporting, experimental errors and interpretation of the results. Various instruments, such as Kjeldahl, soxhlet, spectrophotometer, HPLC, atomic absorption spectroscopy and flame photometer to be utilized for various analyses.

Pre-requisite: CHEM 215, CLN 222

CLN 314: Metabolism & Genetic Nutrition Disorders (1-3-2)

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

Pre-requisite: CLN 221

CLN-315: Enteral & Parenteral Nutrition (1-3-2)

This course designs to explore nutrition support strategies and to provide dietitians with skills and knowledge to assess routine enteral and parenteral feeding regimens, taking into consideration the nutritional requirements of patients and the factors that might affect these requirements.

Pre-requisite: CLN 225

CLN 316: Nutritional Epidemiology (2-0-2)

A study of epidemiological nutritional diseases, such as diabetes mellitus; obesity anemia; deficiencies of vitamins and minerals; and protein and energy malnutrition. The causes of those diseases and nutritional interventions from food production; and marketing, the role of international rescues organizations in such situations and in natural disasters.

Pre-requisite: None

ARB 302: Oral Communication Skills (2-0-2)

Promoting interactive skills and techniques for social, academic and professional life: dialogue; presentations; persuasion and developing a positive approach.

Prerequisite: GS 201

THIRD YEAR – 2nd SEMESTER – 6TH LEVEL

CLN-321: Functional Foods (2-3-3)

The course includes the study of foods and herbs that are used in the diet to treat certain diseases, such as mint, fenugreek and black seeds. It focuses on analyses, chemistry, processing,

bioavailability, and health benefits of bioactive food components, as well as the effect of these foods on the health of individuals. The student will be familiar with the preparation methods and the different usage of these foods. It covers the absorption, disposition, metabolism, and elimination of nutraceutical.

Pre-requisite: CLN 313

CLN 322: Food Services & Management (1-6-3)

This course provides the students to study food systems management, basic consideration to meal planning, good diet in hospitals, quality management in food service establishments and food industries. The use of hazard control system protocol (HACCP) to be used at food manufacturer to control food poisoning is essential to the nowadays nutritionist.

Pre-requisite: CLN 311, CLN 315

CLN 323: Clinical Nutrition Practice I (2-9-5)

This course intends to explore the required skills to work in hospital as a dietitian or nutritionist. It focuses on nutritional plan for inpatient pregnant, lactating women, infants, children, adult and elderly. It also emphasizes on planning, treatment and follow up of patient for diseases such as diabetes, obesity, …etc.

Pre-requisite: CLN 311

CLN 324: Research Methods of Nutrition (2-0-2)

This course emphasizes the students with the skills needed for the formulation of a research plan, execution and presentation of empirical research in clinical nutrition. Examination of the scientific methods and its applications to the study of nutrition-based research questions - including standards of responsible research conduct and evidence-based practice.

Pre-requisite: STAT 114

SLM 388: Human Rights in Islam (2-0-2)

The dignity of mankind and basic human rights. The Islamic viewpoint of human rights, its distinguishing characteristics, and debates related to this issue.

Prerequisite: GS 284

CLN ELECTIVE COURSES I

CLN 325: Nutrition Biotechnology (3-0-3)

This course introduces the students to concept of biotechnology and its application to increase the nutritional composition and safety. It covers the principles of genetic engineering, fermentation, cloning and other modern technique of biotechnology. Using of biotechnology

techniques in processing of different products such as enzymes, proteins, vitamins, flavor compounds and others will be covered.

Pre-requisite: CLN 311, CLN 313

CLN 326: Obesity and Weight Management (3-0-3)

This course explores the multifactorial aspects of obesity, maintenance of healthy weight, and the relationship of weight status and chronic disease prevention. It covers the traditional and novel nutrition and exercise theories as well as current popular diet and exercise trends.

Pre-requisite: CLN 311, CLN 314

CLN 327: Nutrition and Drugs (3-0-3)

This course is designed to provide students with the knowledge and skills for the nutritional management of drug and food interactions in disease therapy. It introduces students on how to approach drug–nutrient interactions and explains the influence of nutrition status, food, nutrients, supplementation on drug disposition, nature and effect.

Pre-requisite: CLN-311, CLN 313

FOUTH YEAR – 1ST SEMESTER – 7TH LEVEL

CLN 411: Nutritional Education & Counseling (3-0-3)

The course helps students to understand how to strengthen their relationships with patients / clients by providing a solid foundation of nutritional counseling and education principles to change food behaviors and improve nutritional status. It covers theories of nutrition education, oral and written nutrition communications, interviewing skills, educational program development & health promotion.

Pre-requisite: CLN 321, CLN 322

CLN 412: Nutritional Assessment (2-6-4)

This course focuses on the knowledge and skills of nutritional assessment and body composition relevant to individual or population based nutrition and dietetic practice. A clinical assessment enables the students to develop an individualized therapeutic program to address deficiencies and disease states. This course will educate the student on the assessment of a client's state of health, diet and lifestyle history, anthropometric measurements, as well as laboratory testing including analysis of blood, stool, saliva and urine.

Pre-requisite: CLN 323

CLN 413: Clinical Nutrition Practice II (2-9-5)

This course teaches the students about the current theories, strategies and philosophies of clinical nutrition in ways that assist patients in making healthy dietary changes. This course designs

to complement the students' rotations in clinical learning environment in hospital. It covers acute diseases and conditions such as burns, cancer, surgery, sepsis and other critical diseases. It emphasizes the practical application of evidence-based practice to medical nutritional therapy in and providing ethical and optimal care for patient.

Pre-requisite: CLN 323

CLN 414: Nutritional Sports (2-0-2)

This course aims to provide students with an understanding of the interrelationship of nutrition, health, fitness & sport performance to improve exercise performance. The course includes thorough review of current literature in Sports Nutrition. This course will examine the application of nutritional regimens to meet exercise requirements and improve athletic.

Pre-requisite: None

CLN 415: Graduation Project (0-3-1)

The course provides students with an opportunity to acquire skills necessary for critically reviewing a number of current journal articles in the field of clinical nutrition in order to select a topic relating to their area of interest. The course also gives students the opportunity to acquire, develop and demonstrate research project skills in the field of clinical nutrition.

Pre-requisite: CLN 324

CLN ELECTIVE COURSES II

CLN 416: Advanced Topics in Food Sciences and Nutrition (3-0-3)

This course introduces advanced topics in nutrition and food sciences. It examines the metabolism of nutrients in details, dietary planning, and supplementation usage. It examines in depth the scientific basis for nutrition reference standards and guidelines. There are four modules; the metabolism of nutrients, the scientific basis for common nutrition evaluation tools, emerging issues in nutrition science, food sources of nutrients. The content will extend prior studies leading to deeper understanding of nutrition as well as address contemporary nutrition science topics.

Pre-requisite: CLN 321, CLN 322, CLN 324

CLN 417: Nutrition Toxicology (3-0-3)

This course covers principles and elements (agent, target, and effect) of toxic events, with a focus on food toxicants and nutrient-toxicant interaction. It emphasis on food toxins including absorption, and metabolism, allergenic and toxic constituents, role of diet and nutrients in mutagenesis and carcinogenesis.

Pre-requisite: CLN 321, CLN 322

CLN 418: Maternal and Child Nutrition (3-0-3)

This course will provide an overview of nutrition issues affecting pregnant and postpartum women, females of reproductive age, infants and children through five years of age. It will integrate public health practice and policy recommendations with evidence-based clinical practice guidelines to provide a comprehensive view of maternal and infant nutrition issues. This course will also provide students with an opportunity to develop public health communications and media skills through a group project.

Pre-requisite: CLN 123, CLN 321, CLN 322

Assessment Methods and Grading Policies

- Continuous assessment (assignments, quizzes, projects)
- Midterm and final exams
- Clinical performance evaluations
- Research projects and presentations

Grade	Range	GPA Weight	Grade Descriptor
A+	95-100	5.00	Excellent High
A	90-94	4.75	Excellent
B+	85-89	4.50	Very Good High
B	80-84	4.00	Very Good
C+	75-79	3.50	Good High
C	70-74	3.00	Good
D+	65-69	2.50	High Acceptable
D	60-64	2.00	Acceptable
F	<60	1.00	Fail

Cumulative GPA Classification

GPA Range	Classification
4.50+	Excellent
3.75–4.49	Very Good
2.75–3.74	Good
2.00–2.74	Acceptable

Semester Load Table (based on GPA)

GPA Range	Max Credit Hours
5.00	20
4.50	19
4.00	18
3.50	17
3.00	16
2.50	15
2.00	14

Student Support Services

- **Academic Advising:** Each student is assigned an advisor for academic support.
- **Appeals and Complaints:** Procedures available for grade appeals and complaints via college administration.
- **Career Services:** Guidance on career paths, internships, and job placements.
- **Wellbeing and Counseling:** Support services for student welfare and success.

Academic Calendar and Milestones (Indicative)

Academic Activity	Typical Timing
Semester Start	September / February
Midterm Exams	Week 7-8
Final Exams	Week 15-16
Internship Start	Post-Level 7 (4th Year)
Graduation Ceremony	Annually (June)

Key Academic Policies

- **Attendance:** Minimum 75% attendance required.
- **Deferment/Interruption:** Max 2 consecutive or 3 non-consecutive semesters.
- **Transfer:** Permitted with approvals.
- **Dismissal:** GPA below 2.00 after warnings or exceeding time limits.
- **Absence from Exams:** Zero grade unless excused.
- **Academic Integrity:** Zero tolerance for misconduct, plagiarism, and cheating.
- **Internship Requirements:** Completion of field training year.

Job Opportunities and Career Paths

Graduates can work as Clinical Nutritionists in:

- **Government Sector:** Hospitals, health centers, universities.
- **Private Sector:** Private clinics, nutrition centers.
- **Authorities:** Food and Drug Authority, Saudi Commission for Health Specialties, Public Health Authority.

Contact Information

Department of Clinical Nutrition
Building 5, 1st & 2nd Floor, Al-Yasmeen Complex
University of Hafar Al-Batin, Saudi Arabia
Website:https://www.uhb.edu.sa/Pages/CollegeDepartementDetails.aspx?Param=college&Item=67&Ref=25

Appendix B: Internship Year Requirements

The Internship Year is a mandatory component of the Bachelor of Clinical Nutrition Program. It provides students with practical, hands-on experience in various clinical and community settings over a period of 50 working weeks (approximately 12 months). The internship aims to bridge theoretical knowledge with professional practice, preparing students for independent clinical nutrition practice.

Objectives of the Internship Year

- Apply theoretical knowledge in real-world clinical nutrition settings.
- Develop competency in conducting nutritional assessments, interventions, and evaluations.
- Enhance communication, counseling, and interprofessional collaboration skills.
- Demonstrate ethical and professional behavior in healthcare environments.
- Gain exposure to diverse healthcare facilities and patient populations.

Internship Structure

Rotation Area	Duration (Weeks)
Clinical Nutrition (Hospitals)	20
Community Nutrition & Public Health	10
Food Service Management	8
Elective/Specialized Rotations	6
Research Project / Case Study	6
Total	**50 weeks**

Competencies and Skills

- Nutritional assessment (anthropometry, biochemical, clinical, dietary analysis)
- Nutrition care process (assessment, diagnosis, intervention, monitoring & evaluation)
- Development of individualized diet plans and counseling strategies
- Documentation and reporting of nutrition care
- Professional interaction with patients, caregivers, and healthcare teams

Assessment and Evaluation Criteria

- **Performance Evaluations** by preceptors (clinical competence, professionalism)
- **Case Studies and Presentations** demonstrating evidence-based practice
- **Research Project or Quality Improvement Initiative**
- **Final Portfolio** documenting competencies achieved
- **Attendance and Punctuality** records

Students must successfully complete all rotations and assessment components to fulfill graduation requirements.

Appendix C: Detailed Academic Policies and Procedures

This appendix outlines the key academic policies and procedures that govern students' academic progress, rights, and responsibilities throughout the Bachelor of Clinical Nutrition Program.

Attendance Policy

- Students must attend at least **75%** of lectures, laboratories, and clinical sessions.
- Students with less than 75% attendance in a course will be **denied access to the final exam** and assigned a failing grade.
- Excused absences (medical or other valid reasons) must be documented and approved by the College Council.

Deferment and Interruption of Study

- Students may defer their studies for up to **2 consecutive** or **3 non-consecutive** semesters with prior approval.
- Requests for deferment must be submitted formally to the College Council and supported with valid reasons.
- Exceeding the deferment limit without approval will result in closure of the student's academic file.

Transfer Policy

- Transfers between colleges within the university require approval from both college deans.
- All completed coursework and grades will be transferred and reflected in the academic record.
- Students cannot request a semester withdrawal under the pretext of awaiting transfer approval.

Academic Progression and Dismissal

- Students who receive **3 consecutive academic warnings** due to a GPA below 2.00 may face dismissal.
- A **fourth chance** may be granted to raise the GPA.
- Maximum time allowed to complete the program is **6 years** (1.5 times the standard duration). Extensions require approval.

Appeals and Complaints Procedure

- Students can submit academic appeals (grades, progression decisions) to the College Academic Affairs Committee.
- Complaints related to teaching, assessments, or other academic matters should be addressed to the Department Chair or Dean.
- Appeals and complaints must be submitted within the designated timeframes announced by the Deanship of Admissions and Registration.

Academic Integrity and Misconduct

- Academic misconduct includes plagiarism, cheating, falsification of data, and unauthorized collaboration.
- Confirmed violations result in penalties ranging from **grade penalties** to **suspension or dismissal**, depending on severity.
- The university upholds a **zero-tolerance policy** on academic dishonesty.

Examination Policies

- Absence from a final exam without an approved excuse results in a **zero grade**.
- Students may apply for an "Incomplete (L)" grade in cases of valid, documented emergencies.
- Applications for postponing exams or incomplete grades must be submitted **5 weeks** before final exams.

Appeals Against Internship Assessments

- Students may appeal internship assessments by submitting a written request to the Internship Coordinator.
- Appeals are reviewed by the Internship Committee and must be based on clear evidence.

These policies ensure fairness, transparency, and academic integrity throughout your studies. Students are strongly advised to familiarize themselves with these regulations and consult their academic advisor for clarification when needed.