

OBAFEMI AWOLOWO UNIVERSITY
ILE-IFE, NIGERIA



FACULTY OF BASIC MEDICAL SCIENCES

**DEPARTMENT OF HUMAN NUTRITION AND
DIETETICS**

2023

OBAFEMI AWOLowo UNIVERSITY

1. HISTORY OF THE UNIVERSITY

Obafemi Awolowo University, Ile-Ife is one of three Universities established in Nigeria between 1961 and 1962 as a result of the report submitted to the Federal Government in September, 1960, by a Commission it appointed in April 1959 under the Chairmanship of Sir Eric Ashby, Master of Clare College, Cambridge, to survey the needs of post-secondary and higher education in Nigeria over the next twenty years. On 8th June, 1961 the Law providing for the establishment of the Provisional Council of the University was formally inaugurated under the Chairmanship of Chief Rotimi Williams.

On 11th June, 1970, an Edict known as the University of Ife edict, 1970 was promulgated by the Government of the Western State to replace the Provisional Council Law of 8th June, 1961. This Edict has since been amended by the Obafemi Awolowo University, Ile-Ife (Amended) Edict No. 112 of 1975 (Transitional Provisions) Decree No.23 of 1975. This new Decree effected a takeover of the Obafemi Awolowo University by the Federal Military Government and established a Provisional Council as an interim governing body of the University which shall subject to the general direction of the Head of the Federal Government, control the policies and finances of the University and manage its affairs. This Provisional Council has since been replaced by a Governing Council.

The University started with five Faculties – Agriculture, Arts, Economics and Social studies (now Social Sciences), Law and Science. Six new Faculties have since been added, namely the Faculty of Education (established on 1st October, 1967), the Faculty of Pharmacy (established on 1st October, 1969), the Faculties Technology and Health Sciences (now College of Health Sciences) (both established on 1st October, 1960), Faculty of Administration with effect from 1st October 1979) and Faculty of Environmental Design and Management (established on April 6, 1982).

In 1992, the University established a collegiate system with five Colleges. The system did not function effectively and was abandoned after two years. However, the Postgraduate College and the College of Health Sciences were retained. The College of Health Sciences now comprises of the Faculties of Basic Medical Sciences, Clinical Sciences and Dentistry.

Names of Officers of the University

Vice Chancellor: Professor A. S. Bamire

Deputy Vice-Chancellor: Professor M. O. Babalola

Deputy Vice-Chancellor: Professor O. M. A. Daramola

Registrar and Secretary to the Council: Mrs. M. I. Omosule

University Librarian: Dr. F. Z. Oguntuase

Bursar: Mr. S. O. Ayansina

Mission

To create a teaching and learning community for imparting appropriate skills and knowledge behavior and attitude; advance frontiers of knowledge that are relevant to national and global development; engender a sense of selfless public service; and promote and nurture the African culture and tradition.

Vision

This vision is of a top rated university in Africa, ranked among the best in the world, whose products occupy leadership positions in the public and private sectors of the Nigerian and global economy that has harnessed modern technology ,social ,economic and financial strategies ,built strong partnerships and linkages within and outside Nigeria and whose research contributes a substantial proportion of innovations to the Nigerian economy.

Objectives

1. To produce graduate of international standard, with appropriate knowledge and skills in their field of study, who will be highly employable and able to employ themselves.
2. To provide high quality research and development activities that will promote the development of the Nation and enhance the image of the University and the researchers.
3. To harness modern technology especially ICT and modern social, economic and financial strategies to run a cost of efficient and effective academic programme and institutional management.
4. To provide services that has relevance to and impact on the local community and the Nation.
5. To provide conditions of study, work and living in the University Community that is of appropriate standard.
6. To expand access to tertiary education in the face of unmet demand.
7. To operate as an equal opportunity educational institution, sensitive to the principle of gender equity and non-discriminatory on the basis of race, ethnicity, religion or physical disability

2. ROLL OF HONOURS FOR STUDENTS

Senate at a Special Meeting held on Wednesday, 1st November, 2006 decided that Roll of Honours for Students be instituted in the University to enhance discipline and good performances among students.

All students are enjoined to strive to be on the Honours Roll.

The details are as follows:

- (i) The Honours Roll should be at three levels, namely:
 - (a) Department Honours's Roll
 - (b) Provost/Deans Honours Roll
 - (c) University/vice-chancellor's Honours Roll
- (ii) The beneficiaries must have a minimum CGPA of 4.0 for Departmental Honours Roll; 4.25 for provost/Deans Honours Roll and 4.5 for vice-chancellor/University Honours Rolls in all the Faculties except the Faculty of Pharmacy and Health Sciences where the candidates are expected to have a cumulative average of 60% and 62% respectively.
- (iii) The beneficiary must maintain this grade annually to continue to enjoy the ward.
- (iv) The recommendations must be processed along with results of Rain Semester examinations.
- (v) The student must be of good conduct.
- (vi) He/She must not have outstanding or carry-over courses and must not be repeating the year.
- (vii) No student on leave of Absence shall enjoy the Annual Roll of Honours Awards.
- (viii) No student that has a disciplinary problem shall enjoy the award.

- (ix) The award should be based on the recommendation of the Departmental Board of Examiners and the Faculty Board of Examiners, while that pertaining to the Vice-chancellor/University shall be processed through the Committee of Deans.
- (x) Names of beneficiaries shall be displayed as follows:
Departmental Honours Department Notice Board
Provost/Deans Honours-Faculty Notice Board
Vice Chancellor/University-Floor O Secretariat Building
- (xi) Each beneficiary shall be given a certificate

3. INFORMATION ON FACILITIES

I. HEZEKIAH OLUWASANMI LIBRARY

The library consists of North and South wings, which are collected by walkways on two levels.

MEMBERSHIP

Membership of the library is available, on completion of a registration card, to all students, members of the staff of the University and such other person as may be determined by the library Committee or the University Librarian on behalf of it.

Students are required to renew their registration at the beginning of each academic year. Library Cards and borrower's tickets are not transferable; books issued on them remain the responsibility of that person whose name appears on them.

At Lost Library Card or Borrower's ticket may be replaced on submission of a written application.

THE LIBRARY COLLECTION

Hezekiah Oluwasanmi library now contains over 380,000 volumes. It consists of two main areas:

- (i) The Undergraduate Areas and
- (ii) The Research Areas.

Serial Collection: The serials collection consists of

1. **Current journals**, the most current issues of which are shelved in the display section of the Serials Room
 - a. Latest backfile i.e. the latest 10 years of journals, which are on open access to registered senior staff and postgraduate students.
 - b. Older backfile i.e. journals older than ten years are on closed access to all categories of readers who must obtain and complete request forms at the serials hatch.

2. **Africana Special Collection**

The Africana Special Collection is a collection of rare and other books of primary interest.

To people whose field of interest are in African Studies. Staff publications and submitted.

For higher degrees of the university as well as of other Universities are also housed there. The Collection is closed access.

- i. Documents Collection

The documents collection includes official publications of the Federal Government of Nigeria, the old regional governments, the present state governments and the Federal Capital Territory. It also includes publications of other African governments and international organizations.

- ii. Reference Collection

Dictionaries, encyclopedia, handbooks, directories, atlases, University Calendars, etc. are shelved in the Reference Room. Bibliographies, indexes and abstracts are available in the Bibliography Room. Reference books do not ordinarily circulate.

A newspaper clippings file (post-October, 1995) and a vertical file of reprints and the pamphlet type material is kept in the Reference Room.

iii. Reserve Collection

a. Day reserve collection

Multiple copies of textbooks, particularly some of those recommended for specific courses, are shelved in the Reserve Books Room on Floor 3 North Wing East.

b. Two Hour Reserve

Some other materials, periodical articles in particular, are placed on 2-hour reserve. These may be obtained on request (signature and seat number required) and retained for a period of two hours at a time, subject to renewal, provided other readers have not demanded the materials.

iv. Recent Accessions

A selection of books added to the Library stock is normally displayed for several days before being put in the main collection. The books may not be borrowed while on display but may be reserved at the Loans Desk.

3. CATALOGUES

A library catalogue is a finding list of books and other materials available in the Library. The following catalogues can be found in the catalogue hall:

- (i) The Author/Title Catalogue
- (ii) The Subject Catalogue
- (iii) The Shelf List
- (iv) The Serials Catalogue
- (v) The Documents Catalogue

HOW TO BORROW A BOOK

When you found the book you want to borrow, you will be required to sign your name and address on the book card provided in duplicate. You must surrender a Borrower's Ticket for each book borrowed.

When you return a book, you must ensure that you receive your Borrower's Ticket back immediately.

RESERVATION

A book can be reserved by filling a reservation slip; in which case, it will not be renewed for the present borrower when returned, and, if it is already overdue, it will be recalled at once.

INTER-LIBRARY LOAN

If the book you require is not in stock, it is often possible to borrow it from another library. This service is dependent on goodwill and co-operation between libraries, and readers who benefit from it are required to observe the regulations applying to each loan.

PHOTOCOPYING SERVICES

Penalties for overdue books will be imposed as follows:-

- (a) ₦5.00 per day for the first 30 days; thereafter all loan privileges will stop.
- (b) Books specially recalled by the university Librarian will attract a fine of ₦10.00 per day after the third day from the date of recall.
- (c) Books lost or damaged will attract a attend the Graduation Ceremony or receive his /her certificate without a clearance certificate from the University Library to effect that no book or fine is outstanding against him or her.

II. DIVISION OF STUDENTS' AFFAIRS

a. Guidance and Counseling Unit:

The Division of Student Affairs has Professional Counsellors who are committed to helping students grow in self-understanding in the process of integrating their personal and academic experiences. The services are free to students and are confidential (i.e. not used as part of his/her other University records). The services include personal crisis intervention, psychological testing, career and occupational counselling and settlement of grievances between students. Where necessary, consultations are made with campus organizations, specialist and academic departments, to ensure that students' problems are resolved satisfactorily.

The Counsellors can be contacted in Rooms 9 & 10 Divisions of Student Affairs between 10.00 a.m. and 2.00 p.m. Monday to Friday.

b. Scholarship and Financial Assistance:

The Division of Student's Affairs serves as a link between students and sponsoring authorities, both with and outside Nigeria. Students are advised to check the Notice boards in their respective faculties as well as those at the Division of Student Affairs Building for advertisements and other relevant information.

Liaison is also maintained between students and governments at various levels for scholarship and bursaries.

III. UNIVERSITY EXAMINATION REGULATION

(a) REGISTRATION FOR UNIVERSITY EXAMINATIONS

- i. A candidate for a University examination must have registered for the courses in the prescribed format not later than the closing date prescribed for registration for such courses. Any candidate who fails to register for courses at the appropriate time as prescribed by Senate will not be allowed to take any examination in such courses. Any examination taken without course registration shall be null and void.
- ii. Students who register for courses are committed to the number of units registered for and are expected to take examinations in such courses. If a student failed to take an examination he would be scored '0F' for the number of units he had registered for and in which he had failed to take the prescribed examination.
- iii. Any student who does not have any course or courses to offer in a particular semester should apply for leave of absence.
- iv. A candidate who has less than 15 units in a particular semester to graduate should apply to his/her Faculty Board for permission to register for less than 15 units. Failure to do so, constitutes a breach of regulation which may result in the non-processing of the candidate's results.
- v. A candidate, who cannot register for courses during the prescribed period for registration because of an illness, must ensure that medical report on his illness is forwarded by him or his parents/sponsors to reach the Dean of his Faculty not later than four weeks after the end of the normal registration period as scheduled in the University Calendar. Such a medical report should be forwarded for authentication by the Director of Medical and Health Services for it to be considered valid. Such a candidate shall be exempted from the penalties of late registration. All applications should be routed through the Head of Department.

- vi. Students must attend a minimum of 75% of course instructions including lectures, tutorials and practicals where required to qualify to sit for examination in any course.
- vii. A candidate for a university examination in a particular degree programmes should not be a regular candidate for another degree in this or any other university concurrently. Any candidate so discovered shall forfeit his/her studentship.

(b) **ABSENCE FROM EXAMINATION**

Candidates must present themselves at such University examinations for which they have registered. Candidates who fail to do so for reason other than illness or accident shall be bound by the following regulations.

- i. Any student who fails to register for courses during one semester without permission should be deemed to have scored '0F' in the minimum number of units required for full time student (i.e. 15 units)
- ii. Candidates, who registered for courses, attended classes regularly, did all practical and tests but did not take required semester examinations should be given a continuous assessment grade in each of the affected courses and a grade of "0" in the examination which they should have taken, but which they did not take.
- iii. Candidates who have less than 15 units to graduate but who fail to take the required examination should be deemed to have scored "F" in the outstanding course only provide such candidates obtained permission to register for less than 15 units.
- iv. Any candidates who on account of illness, is absent from a University examination may be permitted by the Senate on the recommendation from the appropriate Faculty Board, to present himself for such examination at the next available opportunity provided that:
 - a. A full-time student in the University shall report any case of illness to the University Health Centre at all times.
 - b. When a student falls ill during examination he should first report to the Director, Medical and Health Services before attending any hospital outside the University. A report of sickness should be made to the Registrar within a week and a medical certificate for validation of his illness within three weeks.
 - c. When a student falls ill before an examination he shall be under an obligation to send a medical report countersigned by the Director, Medical and Health Services within one week of such illness. Any time outside this period, shall be considered on its own merit.
 - d. The Director of Medical and Health Services should, within 48 hours, submit a medical report on a candidate who is ill during an examination and is taken to the Health Centre or referred by it to the hospital for treatment.
 - e. A candidate applying for leave of absence on medical grounds must forward his application together with a medical report to the Dean of his Faculty through his Head of Department. The Medical report must be countersigned by the Director of Medical and Health Services. All applications for Leave of Absence must be taken by the appropriate Faculty Board.

(c) **EXAMINATION OFFENCES AND PENALTIES EXAMINATIONS OFFENCES**

- i. A candidate shall not be allowed during examination to communicate by word or otherwise with any other candidates nor shall he leave his place except with the consent of an invigilator. Should a candidates act in such a way as to disturb or inconvenience other candidates, he shall be warned and if he persists he may, at the discretion of the invigilator, be excluded from the examination room. Such an action by the invigilator must also be reported in writing through the Head of Department to the Vice-Chancellor within 24 hours.
- ii. It shall be an examination offence for any student, staff or any person whatsoever to impersonate a candidate in any University examination. Any student or staff or the University found guilty under this regulation shall be subjected to disciplinary action by the appropriate authority of the University. The candidate impersonated shall also be liable of an infraction of this regulation where it is established directly from circumstantial evidence that the impersonation is with his knowledge or connivance.
- iii. No candidate shall take into an examination room, or have in his possession during an examination any book or paper or printed or written documents, whether relevant to the examination or not, unless specifically authorized to do so. An invigilator has authority to confiscate such documents.
- v. Mobile phones are not allowed in examination halls.
- vi. A candidate shall not remove from an examination room any papers, used or unused, except the question paper and such book and papers, if any, as he is authorized to take into the examination room.
- vii. Candidates shall comply with all “direction to candidates” set out on an examination answer book or other examination materials supplied to them. They shall also comply with direction given to them by an Invigilator.
- viii. Candidates shall not write on any paper other than the examination answer books. All rough work must be done in the answer books and crossed out neatly. Supplementary answer books, even if they contain only rough work must be tied inside the main answer books.
- ix. When leaving the examination room, even if temporarily, a candidate shall not leave his written work on the desk but he shall hand it over to an invigilator. Candidates are responsible for the proper return of their written work.
- x. Smoking shall not be permitted in examination room during examination sessions.
- xi. Any candidates of staff who attempts in any way to unlawfully have or give pre-knowledge of an examination question or to influence the marking of scripts or the award of marks by the University examiner shall be subjected to disciplinary action by the appropriate authority of the University.
- xii. If any candidate is suspected of cheating, receiving assistance or assisting other candidates or of infringing any other examination regulation, a written report of the circumstance shall be submitted by the

invigilator to the Vice-Chancellor within 24 hours of the examination session. The candidate concerned shall be allowed to continue with the examination.

- xiii. Any candidate suspected of examination malpractice shall be required to submit to the invigilator a written report immediately after the paper. Failure to make a report shall be regarded as a breach of discipline. Such report should be forwarded along with the invigilator's report to the Vice-Chancellor.
- xiv. Where a Head of Department fails to forward a report on examination malpractice to the Vice-Chancellor such action would be considered as misconduct.
- xv. Where the Vice-Chancellor is satisfied on the basis of the reports forwarded to him that any candidate has a case to answer, he shall refer the case to the Central Committee on Examination Malpractice.

(d) PENALTIES FOR EXAMINATION MALPRACTICE AND OTHER OFFENCES

- i. Any examination offence would attract appropriate penalty including outright dismissal from the University.
- ii. Where the Vice-Chancellor has reason to believe that the nature of any question or the content of any paper may have become known before the date and time of the examination to any persons other than the examiners of the paper, the Board of Examiners, and any official of the University authorized to handle the paper, he may order the suspension of the examination or the cancellation of the paper or setting of a new paper and shall report the matter to the Senate. The Vice-Chancellor shall also stake any disciplinary measure against any student or students involved as he may deem appropriate.
- iii. If in the opinion of an invigilator, circumstances arise which render the examination unfair to any candidate he must report the matter to the Vice-Chancellor within 24 hours after the examination. Where such matter is reported to the Vice-Chancellor he may take such action as he deems fit. If he directs that another examination be held, that examination shall be the examination for the purpose of this regulation.
- iv. Any candidate or member of staff may complain to the Vice-Chancellor that an examination has been improperly conducted. The Vice-Chancellor shall investigate the complaint and report the result of his investigation to the Senate which shall take such action as it may deem appropriate, including with-holding a result or deprivation of the award of a degree, diploma etc as laid down in status 17. However where it is shown to the satisfaction of the Committee of Deans that any alteration or amendment of a University regulation involving a change in a course of study or in examination requirements has caused hardship to a candidate in any examination, the Committee of Deans shall make such provisions as it thinks fit for the relief of each hardship and report same to Senate.

IV. COURSE UNIT SYSTEM AND COMPUTATION OF GRADE POINT AVERAGE (CGPA)

a) DEFINITION OF TERMS

- (i) **Student Workload:** This is defined in terms of course units. One unit represents one hour of lecture or one hour of Tutorial or 2-4 hours of practical work per week throughout a semester. Thus for example, a course in which there are 2 hours of lectures and 1 hour of Tutorial per week is a 3 unit course.
- (ii) **Total Number of Units (TNU):** This is the total number of course units carried by a student in a particular semester. It is the summation of the load Units on all Courses carried during the semester. For example, a student who is carrying 6 courses of 3 units each has a TLU of 18 for that semester. No student shall be allowed to carry (i.e. register for) or be examined in more than 24 units in any particular semester.
- (iii) **Cumulative Number of Units (CNU):** This is the summation of total number of units over all the semesters from the beginning to date. A student who is prone to repeating courses will finish (if he does not drop out) with a higher CNU than his non-repeating colleague and will most likely require a longer time to complete requirements for the award of Degrees.
- (vi) **Level of Performance Rating:** This is the rating of grades obtained in terms of credit points per load unit.

THE FACULTY OF BASIC MEDICAL SCIENCES

Brief History

The Faculty of Basic Medical Sciences is one of the three faculties constituting the present College of Health Sciences of the Obafemi Awolowo University, Ile-Ife. It was created in 1993, when the old Faculty of Health Sciences became collegiate. Until 2010 the Faculty was made up of eight Departments, namely, the Departments of Anatomy and Cell Biology, Chemical Pathology, Haematology and Immunology, Medical Microbiology and Parasitology and Medical Rehabilitation. Others are Morbid Anatomy and Forensic Medicine, Nursing Science and Physiological Sciences. The University Council at its 220th meeting approved the creation of two additional Departments and these are the Department of Medical Biochemistry and the Department of Medical Pharmacology and Therapeutics, thus bringing the total number of Departments in the Faculty to 10. It also has Multi-disciplinary Laboratory unit.

MISSION, PHILOSOPHY, AIMS AND OBJECTIVES

Mission

To provide an enabling environment for teaching, learning and research, while impacting professional skills and knowledge, behaviour and attitude that should contribute to advancing the health and productivity of the community without bias to gender, culture or creed.

Philosophy

Our philosophy is to train excellent and skilled health professionals, with integrity and sound scientific decision-making ability, relevant to national and international health concerns.

Objectives

The specific objectives are to:

- i. Recruit and retain academically sound and responsible Faculty members that are worthy role models.
- ii. Contribute to the training of Medical Doctors and Dental Surgeons with strong scientific decision-making ability.

- iii. Train competent Nurses who will contribute to improving the care of their clients through a scientific approach.
- iv. Train effective and efficient Physiotherapists and Occupational Therapists.
- v. Train Nutritionists with skills to utilize food and science of nutrition in the prevention and treatment of diseases.
- vi. Encourage and sustain quality research in Basic Medical Sciences and professional programmes that shall provide solutions to the numerous health needs of Nigerians.
- vii. Provide and maintain a conducive working environment for all cadres of staff.
- viii. Provide and maintain an enabling and friendly learning environment for undergraduate and postgraduate students.

DEPARTMENT OF HUMAN NUTRITION AND DIETETICS

A. OVERVIEW

Brief History

The Nutrition Unit of the Department of Family, Nutrition and Consumer Sciences in the Faculty of Agriculture, which had been in existence for about 40 years metamorphosed into a full-fledged Department of Human Nutrition and Dietetics in the Faculty of Basic Medical Sciences of the Obafemi Awolowo University, Ile Ife. This was to meet the requirement of the Association of Nigerian Dietitians (AND) that all Nutrition programmes must be domiciled in the Faculty of Basic Medical Sciences. Prior to this period, a B.Sc. degree in Consumer Sciences (Food, Nutrition and Dietetics) was awarded to the students as against a B.Sc. Nutrition and Dietetics degree recognized by the professional body (AND) for the graduates to proceed to register as Dietitians. This programme was processed and the Council of Obafemi Awolowo University approved it on September 7, 2021.

Mission

To promote good nutrition and dietetic practices that sustain healthy life through evidence-based teaching, innovative research activities and community engagement.

Philosophy

Human Nutrition is the science of food, nutrients, and other substances therein; their action, interaction and balance in relationship to health and disease; the process by which the organism ingests, digests, absorbs, transports and utilizes nutrients and disposes of the end products, while Dietetics, is the application of scientific principles of nutrition in the management of health and disease conditions. The degree programme in Human Nutrition and Dietetics is designed to produce graduates who would apply the knowledge and principles of the multifaceted scientific domain of human nutrition in tackling the current and future food, nutrition and health challenges of society in order to enhance sustainable development.

Objectives

The objectives are to train graduate who will be able to:

- 1) Assess the nutritional problems of population groups, identify the causes and design interventions for their solution.
- 2) Plan, implement, monitor, and evaluate nutrition programmes.
- 3) Exhibit the necessary understanding of the scientific basis of health and disease.
- 4) Provide the skilled manpower in Human Nutrition and Dietetics to take up management and leadership positions in the public and private sectors
- 5) Create small to medium scale businesses in the areas of the Human Nutrition and Dietetics.

- 6) Promote scholarship and high quality research aimed at solving contemporary nutrition problems as well as expand the frontiers of knowledge in Human Nutrition and Dietetics
- 7) Contribute to global discourse on Human Nutrition and Dietetics and international perspectives of nutrition challenges

Values

- Professionalism
- Innovation
- Collaboration
- Commitment
- Passion
- Integrity
- Leadership

B. DEGREE TO BE OFFERED

The nomenclature for the Degree is Bachelor of Science in Human Nutrition and Dietetics (B.Sc. Human Nutrition and Dietetics).

C. DURATION OF THE PROGRAMME

The B.Sc. Human Nutrition and Dietetics is a 5-year programme. A minimum of ten (10) semesters for Unified Tertiary Matriculation Examination (UTME) candidates and eight (8) semesters for Direct Entry candidates will be required for the award of Bachelor of Science in Human Nutrition and Dietetics.

D. ADMISSION REQUIREMENTS

i. Unified Tertiary Matriculation Examination (UTME)

The minimum requirements for admission leading to a B.Sc. degree in Human Nutrition and Dietetics are credits in five subjects at the Senior Secondary School level or National Examinations Council (NECO) or its equivalent in at least five subjects including English Language, Mathematics, Chemistry, Biology and Physics. Candidates must also have passed the Unified Tertiary Matriculation Examination.

ii. Direct Entry

In addition to the University minimum requirements for admission, candidates with:

- a) N.D., H.N.D in Nutrition and Dietetics, Food Science and Technology and any other relevant discipline with at least an Upper Credit may be admitted into Part II.
- b) NCE in Biological Sciences-related discipline with at least Credit may be admitted into Part II
- c) First degree in Science-related discipline from accredited institutions of not less than Second Class Lower division may be admitted into Part II.

iii. Transfer from other Faculties or other University

Candidates transferring from science-related Faculties in and outside the University who have satisfied the Senior Secondary School Certificate requirement for admission may be allowed to transfer to Part II of the programme.

E. DEGREE PROGRAMME AND COURSES

There are four types of courses:

a) **University compulsory courses**

These are compulsory courses prescribed by the University as basic courses in Part I as the requirement for the Bachelor of Science in Human Nutrition and Dietetics.

b) **University special elective courses**

These are compulsory courses that students self-select and must pass before they can graduate. Students are required to take and pass a minimum of 12 units of the special elective courses offered in Faculties other than theirs. However, LIB 001(0 Units) and SER 001 – Use of English (4 Units) are compulsory for all students.

c) **Faculty of Basic Medical Sciences courses**

These are compulsory courses prescribed by the faculty in Part II (Anatomy, Physiology and Biochemistry Courses) for the students of Human Nutrition and Dietetics.

d) **Departmental courses**

These are Compulsory courses in Human Nutrition and Dietetics which students are required to pass in their major field of specialization.

F. MINIMUM UNITS REQUIRED FOR THE AWARD OF BACHELOR OF SCIENCE IN HUMAN NUTRITION AND DIETETICS

U.T.M.E:	Total units for Graduation	= 178 units
	Special electives	= 12 units
	Total	= 190 units
Direct Entry:	Total units	= 136 units
	Special electives	= 12 units
	Total	= 148 units

G. MODE OF EXAMINATION

Each course shall be examined halfway through and at the end of the course. The total of 100% for all courses shall be made up as follows:

In-course work	40%
End of course examination	60%

i. Courses having practical aspects shall be graded as follows:

In-course work (Theory	20%)	
(Practical	20%)	
		=40%
End of course (Theory	30%)	
(Practical	30%)	
		=60%
		=100%

- ii. Course requiring oral examination in addition to the above will be made up as follows:
- | | | |
|------------------------|------|--------------|
| In-course work (Theory | 20%) | |
| (Practical | 20%) | =40% |
| | | |
| End of course (Theory | 30%) | |
| (Practical | 20%) | |
| (Oral | 10%) | =60% |
| | | =100% |
- iii. Dissertation shall be graded as follows:
- | | | |
|--------------------|-------|--------------|
| Project (Content | =80%) | |
| Oral defence (Oral | =20%) | =100% |

H. BACHELOR OF HUMAN NUTRITION AND DIETETICS COURSE EXAMINATION REGULATIONS

i. Regulations

1. A minimum of 75% attendance in all course instructions (lectures and practicals) is required for all students. A student shall only be allowed to sit for the final examination in a course, provided he/she has fulfilled the above requirements. A duly signed attendance document by the course instructor/coordinator will be required prior to the final examination.
2. The examination shall be conducted as prescribed by Senate. Each student shall be examined in a course via a theory paper and multiple choice questions (MCQ) of not less than three (3) hours duration.
3. Examination will be conducted at the end of each semester for all courses taken during the semester including practical courses.
4. The pass mark for all courses shall be 45%.
5. Any student with grade below 45% in any course will have to carry over the course and register for it at the next available semester.
6. Any student who scores a cumulative grade point average (CGPA) of less than 1.00 in two consecutive semesters shall be required to withdraw from the programme and University.
7. When for valid reason (e.g. medical), a student is unable to complete all the prescribed requirements for courses in which he/she is formally enrolled, he/she may, on the recommendation of the Head of Department, be awarded an incomplete grade (S), the grade will normally be redeemed when the student satisfies all prescribed requirements.
8. The final award and the class of degree shall be based on the cumulative average obtained by each student in all prescribed courses starting from Part 1.

ii. The Course Unit System and the Computation of Grade Point Average

Students who have satisfactorily completed all requirements shall be awarded degree as indicated below:

Level of performance

Students shall be recorded as having attained in a course a level of achievement graded as follows

A =	Excellent	70-100%
B =	Very Good	60-69%
C =	Good	50-59%
D =	Satisfactory	45-49%
F =	Failure	0- 44%

iii. Calculation of Grade Point Average (GPA)

The entire performance of each student during entire semester shall be determined by means of a weighted grade point average, obtained by awarding credit points in respect of each course multiplied by the numerical value of the grade obtained as follows:

A =	5	70-100%
B =	4	60-69%
C =	3	50-59%
D =	2	45-49%
F =	0	0- 44%

I. ASSESSMENT AND AWARD OF DEGREES

- i. A Student’s workload is defined in terms of course units. One unit represents an hour of lecture or one hour of tutorial, or 2-4 hours of practical work per week throughout a semester. All courses shall run for one semester or a full session of two semesters.
- ii. The final award and the class of the degree shall be based on the Cumulative Grade Point Average (CGPA) obtained by each candidate in all prescribed courses approved by the University. The final cumulative grade point average shall be calculated on the basis of the total number of credit points and the total number of course units registered for during the course of the student’s programme. In the case of a failed course, the candidates must repeat the source at the next available opportunity. If the course is an elective, the candidate may substitute another course and shall not be required to pass the failed elective course. If the course is a restricted elective, substitution can only be made from the list of restricted electives. The failed grade would however be reflected in the transcript.

A candidate who has satisfactorily completed all requirements for the degree with an overall grade point average of not less than 1.50 shall be awarded the honours degree as indicated below:

Mark range	Degree
First Class	4.50-5.00
Second Class (Upper Division)	3.50- 4.49
Second Class (Lower Division)	2.40- 3.49
Third Class Honours	1.50- 2.39
Pass	1.00- 1.49

- iii. Passes in 12 units of Special Electives is a requirement for graduation.
- iv. A candidate who scores a cumulative grade point average (CGPA) of less than 1.00 in two consecutive semesters shall be required to withdraw from the University

J. COURSE STRUCTURE AND SYNOPSES OF THE HUMAN NUTRITION AND DIETETICS DEGREE PROGRAMME

PART I Harmattan Semester

Course Codes	Course Title	L	T	P	Units	Status
BOT 101	Introductory Botany I	3	1	0	3	C
BOT 103	Experimental Botany I	0	0	3	1	C
CHM 101	Introductory Chemistry I	3	1	0	4	C
CHM 103	Experimental Chemistry I	0	0	3	1	C
PHY 105	Physics for Biological Sciences	3	1	0	4	C
PHY 107	Experimental Physics IA	0	0	3	1	C
SSC 101	Man in His Social Environment	2	1	0	3	C
ZOO 101	Introductory Zoology	3	1	0	3	C
ZOO 103	Experimental Zoology	0	0	3	1	C
	Special Elective				2	C
	Total number of Units				23	

PART I Rain Semester

Course Codes	Course Title	L	T	P	Units	Status
BOT 102	Introductory Botany II	3	1	0	3	C
BOT 104	Experimental Botany II	0	0	3	1	C
CHM 102	Introductory Chemistry II	3	1	0	4	C
CHM 104	Experimental Chemistry II	0	0	3	1	C
PHY 106	Physics for Biological Sciences II	3	1	0	4	C
PHY 108	Experimental Physics IB	0	0	3	1	C
SSC 102	Wealth and Poverty of Nations	2	1	0	3	C
	Special Elective				2	C
	Total number of Units				19	

PART II: Harmattan Semester

Course Codes	Course Title	L	T	P	Units	Status
CLI 213	Human Anatomy I	2	0	3	3	C
CLI 215	Human Anatomy II	2	0	3	3	C
CLI 219	Human Physiology I	2	0	0	2	C
CLI 221	Human Physiology II	2	0	3	3	C
CLI 217	Physiology and Pathological Chemistry I	2	1	0	3	C
NUT 201	Introduction to Human Nutrition and Dietetics	2	0	0	2	C
	Special Elective				2	
	Total number of Units				18	

PART II: Rain Semester

Course Codes	Course Title	L	T	P	Units	Status
CLI 214	Human Anatomy III	2	0	3	2	C
CLI 216	Human Anatomy IV	2	0	3	2	C
CLI 220	Human Physiology III	2	0	3	3	C
CLI 218	Human Physiology IV	2	0	0	2	C
CLI 222	Physiology and Pathological Chemistry II	2	0	3	3	C
CLI 240	Biostatistics	1	0	3	3	C
NUT 202	Principles of Nutrition and Dietetics	2	0	0	2	C
	Special Elective				2	
	Total number of Units				19	

PART III: Harmattan Semester

Course Codes	Course Title	L	T	P	Units	Status
PSY 201	Introduction to Psychology	2	0	0	2	R
NUT 301	Food Composition, Analysis and Sensory Evaluation	1	0	2	2	C
NUT 303	Nutrition in Life Cycle	2	0	0	2	C
NUT 305	Food Commodities and Products	2	0	0	2	R
NUT 307	Food Preparation and Management	1	0	3	2	R
NUT 309	Introduction to Clinical Nutrition	2	0	0	3	C
FST 301	Introduction to Food Processing	2	1	0	2	R
FST 305	Introduction to Food Microbiology	2	1	0	2	C
SEO 003	Principles of Entrepreneurship and self-Employment	2	0	0	2	C
	Special Elective				2	
	Total number of Units				21	

PART III: Rain Semester

Course Codes	Course Title	L	T	P	Units	Status
NUT 302	Diet Therapy & Hospital Practical 1	1	0	3	3	C
NUT 304	Research Methods in Nutrition and Dietetics	2	0	0	2	C
NUT 399	Students' Industrial Work Experience (SIWES)	0	0	15	3	C
ETR 304	Creativity and Innovation	2	1	0	3	C
ETR 306	ICT Application in Entrepreneurship	2	1	0	3	C
FST 302	Post-Harvest Technology	2	1	0	2	R
FST 306	Food Microbiology 1	2	1	0	2	C
FST 396	Food Microbiology Lab 1	0	0	2	1	C
	Special Elective				2	R
	Total number of Units				21	

PART IV: Harmattan Semester

Course Codes	Course Title	L	T	P	Units	Status
NUT 401	Advanced Food Preparation	0	0	2	2	C
NUT 403	Community Nutrition	2	0	1	3	C
NUT 405	Nutrition Education and Communication	2	0	1	3	C
NUT 407	Institutional Food Service Management	0	0	2	2	C
NUT 409	Public Health Nutrition	2	0	0	2	C
NUT 411	Seminar in Human Nutrition and Dietetics & Proposal Writing I	1	0	2	2	C
NUT 413	Nutrition Counselling	0	0	2	2	C
NUT 415	Nutritional Assessment and Food Consumption Studies	2	0	1	2	C
	Special Elective				2	
	Total number of Units				20	

PART IV: Rain Semester

Course Codes	Course Title	L	T	P	Units	Status
NUT 499	Students' Industrial Work Experience (SIWES)	0	0	30	15	C
	Total number of Units				15	

PART V Harmattan Semester

Course Codes	Course Title	L	T	P	Units	Status
NUT 501	Advances in Human Nutrition	2	0	0	2	C
NUT 503	Nutritional Epidemiology	2	0	0	2	C
NUT 505	Sports Nutrition	1	0	3	2	R
NUT 507	Recipe Development and Testing				3	
NUT 509	Seminar in Human Nutrition and Dietetics & Proposal Writing II	1	0	3	2	C
NUT 511	Nutrition in Emergencies	2	0	0	2	R
NUT 513	Weight Regulation and Obesity	2	0	0	2	R
	Special Elective				2	
	Total number of Units				17	

PART V Rain Semester

Course Codes	Course Title	L	T	P	Units	Status
NUT 502	Diet Therapy & Hospital Practical II	2	0	3	2	C
NUT 504	Food Chemistry and Toxicology	2	0	0	2	C
NUT 506	Consumer Education	2	0	0	2	C
NUT 508	International Nutrition	2	0	0	2	C
NUT 510	Research Project	1	0	9	4	C
NUT 512	Nutrition Planning, Policy and Advocacy	2	0	0	2	C
NUT 514	Entrepreneurship in Human Nutrition and Dietetics	2	0	0	2	R
	Special Elective				2	
	Total number of Units				18	

K. COURSE SUMMARY

Part I Courses

Part I courses are University courses and their descriptions are contained in the brochures of the departments where they are taught.

Part II Courses

In Part II, students shall undertake University, Faculty and Departmental courses as listed below and shall be graded every semester for each of the courses.

Faculty Courses

- i. Anatomy (CLI 213, CLI 214, CLI 215 and CLI 216),
- ii. Physiology (CLI 218, CLI 219, CLI 220 and CLI 221),
- iii. Medical Biochemistry (CLI 217 and CLI 222) and
- iv. Biostatistics (CLI 240)

Departmental Courses

- i. NUT 201 and NUT 202

L. COURSE DESCRIPTION

PART II Courses

CLI 213: Human Anatomy I (3 units)

It shall cover anatomical terminologies, general body organization including cell structure, structure of membranes, body tissue and organs, and body defense. Definitions and terminologies in embryology, and developmental biology, cell division, gametogenesis, events leading to fertilization, cleavage, implantation and formation of germ layers shall be covered. Placenta formation and functions shall also be covered.

Course Learning Outcomes

At the end of the course, students should:

- have the knowledge of basic and gross anatomy of human body
- describe the normal and structural variations in the body
- have the knowledge of cell division and formation

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 214: Human Anatomy III (2 Units)

It shall cover the gross anatomy, embryology and histology of the kidney, ureter, urinary bladder and the male and female urethra. The gross anatomy and clinical relevance of endocrine organs such as pituitary, thyroid, parathyroid, pancreas, gonads and adrenal glands shall be taught.

Course Learning Outcomes

At the end of the course, students should:

- have basic knowledge of structure that makes up the urinary system
- be familiar with the location of each endocrine gland in the body
- describe the hormones produced by each gland and describe the effect on the body

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 215: Human Anatomy II (3 Units)

This course shall cover the gross, developmental and microanatomy of the heart, great vessels arterial, venous and lymphatic systems. It shall also cover the gross anatomy, embryology and histology the respiratory system. Anatomy of the diaphragm, mediastinum and the coverings of the thoracoabdominal cavities shall also be covered. This shall also cover the anatomical description of the alimentary canal including the oral cavity, oropharynx, esophagus, stomach duodenum, jejunum ileum, and large intestines. Anatomy of glands associated with digestion such as liver, pancreas, and the biliary system shall be covered. Emphasis shall be made on the microanatomy and development

Course Learning Outcomes

At the end of the course, students should:

- have the basic knowledge of the size, shape and location of the heart
- be familiar with the organs that make up the digestive system
- have the knowledge of the flow of blood through the pulmonary system
- be familiar with the structure of each organ

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 216: Human Anatomy IV (2 Units)

It shall cover the integumentary system that maintain, integrate and control body functions. The anatomy of other sense organs such as eye, ear, tongue and olfactory organ shall be covered. The gross anatomy of the brain and spinal cord shall be covered. Peripheral and autonomic nervous system shall also be covered or taught.

Course Learning Outcomes

At the end of the course, students should:

- describe the special sensory modalities
- describe the structure of each sensory organ
- identify how the integumentary system control of the body

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 219: Human Physiology I

(2 Units)

Introduction to Physiology and its place in Human Nutrition and Dietetics, the composite cell, homeostasis, body fluid: compartmentalization, composition and measurement, physiology of excitable tissues, resting membrane potential and action potential, impulse conduction and transmission, nerve-muscle relation, contractile and regulatory proteins; muscle energetic, excitation-contraction coupling; molecular basis of muscle contraction, general characteristics and functions of blood, properties and functions of plasma, red blood cells; properties, functions & blood group systems, white blood cells; functions, immunity, platelets and its functions, haemostasis; blood coagulation and fibrinolytic systems

Course Learning Outcomes

At the end of the course, students should:

- understand the functions and integration of various systems of the body
- be familiar with foundation of some diseases with abnormal physiology

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 220: Human Physiology III

(3 Units)

Physiologic anatomy of hypothalamo-pituitary axis, hormones; nature, synthesis, release and transport, the “master gland” of the endocrine system. Pituitary secretions and their current concepts of the servomechanisms between the hypothalamus, the pituitary and other endocrine organs, other endocrine glands; thyroid, parathyroid, endocrine pancreas, adrenal gland; normal function. Physiologic anatomy of the kidney including renal circulation and autoregulation, the renin-angiotension system, functions of the kidneys including non-urinary/non-excretory functions, glomerular filtration and tubular transport; reabsorption and secretions, urine formation: Counter-current system, markers of renal function, micturition. Physiologic anatomy of male and female reproductive system, male and female sex hormones, cyclicity of hormone secretion in females, pregnancy and lactation, assisted fertility techniques.

Course Learning Outcomes

At the end of the course, students should:

- list the function of each organ in the urinary system
- describe the overall function of each organ
- be familiar with the endocrine glands
- identify the function of the hormone produced by the endocrine glands

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 221: Human Physiology II (3 Units) Overall plan and functions of the cardiovascular system (CVS), physiological anatomy of the heart, The vascular system: exchange of fluids across the capillaries, cardiac muscle physiology, Cardiac cycle, Heart Sound, Jugular venous pulsation and pressure; arterial pulsations, Cardiac output and its estimation, Blood Pressure: Diastolic, Systolic and Mean Arterial Blood Pressure, Regulation of arterial blood pressure, Electrocardiography. Physiologic anatomy of respiratory apparatus & brief review of relevant gas laws, Lung volumes, capacities & spirometry, Mechanics of breathing, Ventilation-perfusion relationships, Oxygen and carbon-dioxide transport, Control of respiration, Hypoxias and O₂ treatment, hypercapnia, Abnormal types of breathing. Physiologic anatomy of the gastrointestinal tract; Innervations and autonomic control, Secretions of gastrointestinal tract and their control, Digestion and absorption of various food substances, Liver and its accessory, pancreas; functions.

Course Learning Outcomes

At the end of the course, students should:

- be familiar with the function of each organ that makes up the digestive system
- have the basic knowledge on blood and its function
- identify the function of the heart
- have the knowledge of the flow of blood through the pulmonary system

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 218: Human Physiology IV

(2 Units)

Introduction: General plan/organization of the nervous system (CNS, PNS- SNS &ANS), Functional organization of Autonomic Nervous System, basic characteristics of sympathetic and parasympathetic divisions, Sensory division of the CNS; morphology; receptors, sensory pathways, reticular formation, thalamus and sensory cortex, Motor division of the CNS; morphology; basal ganglia, pyramidal system, extrapyramidal system and motor cortex, Brainstem; Medulla and Midbrain, Cerebellum, locomotion and maintenance of posture, Deep tendon and superficial reflexes; muscle spindle & muscle tone, Higher functions of the Nervous system; hypothalamus and limbic system, sleep and EEG & Physiology of learning and memory, Auditory physiology, Physiology of vision, Gustatory system, Olfactory system, Functional anatomy of skin, Thermoregulation basic concepts; Heat balance and heat transfer mechanisms, Temperature regulation, Abnormality of temperature regulation; fever.

Course Learning Outcomes

At the end of the course, students should:

- list the function of each special sensory
- identify how the integumentary system control the body

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 217: Physiology and Pathological Chemistry I**(3 Units)**

Introduction to Biochemistry, review of organic chemistry topics, cell structure & function, water, pH and solutes: The aqueous environment of cell, water as a universal solvent, properties of acids & bases, pH and buffers, chemistry, structure & classification of carbohydrates, monosaccharides, disaccharides & polysaccharides, epimers, anomers, mutarotation, physiological importance of carbohydrates, chemistry & classification of lipids, fatty acids and phospholipids, lipoproteins, chemistry of amino acids & proteins, classification and properties of amino acids, protein structure and function, chemistry of nucleic acids & nucleotides, biochemical energetics, laws of thermodynamics, high energy phosphate compounds and energy transfer, electron transport chain. Vitamins, coenzymes and enzymes: nature and properties of enzymes, classification of enzymes, enzyme inhibition, regulatory enzymes.

Course Learning Outcomes

At the end of the course, students should:

- understand protein structure and function
- be familiar with the classification of carbohydrates
- have the knowledge of metabolism of lipids, amino acids, carbohydrates,
- be exposed to how genes and metabolism are regulated by hormones
- know the nature and properties of enzymes

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 222: Physiology and Pathological Chemistry II**(3 Units)**

Amino acid Metabolism: protein digestion, metabolic fates of amino acids, urea cycle inborn errors of amino acid metabolism. Nucleotide Metabolism: transcription & replication. Carbohydrate Metabolism: glycolysis, citric acid cycle, gluconeogenesis, glycogen metabolism, glycogen storage diseases, fructose & galactose metabolism. The genetic code, protein synthesis, post-translational modifications, inhibition / defects of protein synthesis. Digestion and absorption of lipids, alpha, beta and omega oxidation of fatty acids, ketogenesis, utilization of ketone bodies. Nutrition: energy metabolism, respiratory quotient for carbohydrates, fatty acids and proteins, calculations of energy expenditure and energy requirement, diabetes, protein energy malnutrition, gout.

Course Learning Outcomes

At the end of the course, students should:

- understand amino acid metabolism
- be familiar with carbohydrate metabolism
- have the knowledge of energy metabolism and requirements

Grading System for the Courses

The courses will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

CLI 240: Biostatistics

(3 units)

This course is intended to provide an understanding of numerical methods in biomedical definition of statistical terms and notation, data collection and presentation, measures central tendency of dispersion, probability and distributions, test of hypothesis, correlation analysis, regression analysis, analysis of variance.

Course Learning Outcome

At the end of the course, students should:

- understand the numerical methods in biomedicine
- define some statistical terms related to medicine
- understand the various methods of data collection and presentation
- have knowledge of how to formulate and test hypotheses

Grading System for the Course

The course will be graded as follows:

In-course	30%
Class Attendance	10%
Examination	60%

NUT 201: Introduction to Human Nutrition and Dietetics (2 Units)

Course Contents

Definition and goals of studying Human Nutrition and Dietetics; Historical development, philosophy and objectives of Nutrition and dietetics; Career opportunities in Human Nutrition and Dietetics, including the necessary academic preparations and personal qualities required. Basic human needs and the role of Human Nutrition and Dietetics in meeting these needs; Nature of families and their nutritional needs; Definition of major concepts in Nutrition: Nutrients, their functions and sources; malnutrition; adequate diets; nutrient needs/requirements; Relationship between nutrition and health, including HIV/AIDS; Human Nutrition and Dietetics in National Development.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the objectives of Nutrition and Dietetics
- Define key terms in Nutrition and Dietetics
- Discuss basic principles of nutrition
- Give basic overview on the relationship between nutrition and health
- Explain nutrient requirements and intakes

Skill

Students should be able to:

- formulate and plan adequate diet
- calculate daily nutritional needs

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 202: Principles of Nutrition and Dietetics (3 Units)

Course Contents

Basic nutrition principles with special emphasis on nutrients (protein, carbohydrate, fat, minerals, vitamins, and water); sources, functions, digestion and absorption and their problems (signs and symptom of deficiency diseases). This course provides an in-depth discussion on foods, their characteristics, effects of anti-nutrients, and nutrient – nutrient and nutrient-drug interactions. Recommended dietary and nutrient intakes, safe levels of nutrient intake, balance studies to determine nutrient requirement will be addressed.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Discuss basic nutrition principles
- Describe the concept of digestion, absorption and functions of nutrients.
- Discuss principles of energy balance
- Explain the determinants of food choices
- Explain the effects of anti-nutrients and nutrient-nutrient interaction
- Discuss with dietary guidelines
- Give an overview of food and nutrition security
- Explain the concept of dietary diversity
- Identify the non-conventional foods
- Discuss the concept of food enrichment, supplementation and fortification
- Give an overview of basic nutrition evaluation methods

Skill

Students should be able to:

- assess food and nutrition security
- calculate nutritional requirement

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

PART III COURSES

NUT 301: Food Composition, Analysis & Sensory Evaluation (2 Units)

Course Contents

The course content will be delivered using FAO/INFOODS e-learning module as a teaching guide. Introduction to the chemical methods for determining the constituents of food and diets. Data presentation and nutritional interpretation of such data. Basic principle of food composition data, food composition tables and databases. Food description with emphasis on food selection and nomenclature. Food components: Definition and selection, calculation and conversion of components and units quality consideration and compilation including food

component analysis. Quality consideration in food composition including quality data and biodiversity. Compilation of food composition data with emphasis on the compilation principles and recipe calculation. Biological assay; chromatography; introduction to basic analytical equipment.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Discuss the concept of INFOODS learning module of FAO
- Explain the chemical methods for determining the constituents of food and diets
- Discuss data presentation methods and nutritional interpretation of such data
- Describe the basic principle of food composition data generation
- List the components of food composition tables and databases
- Conduct food analysis and draft food composition table
- Practice sensory evaluation of foods

Skill

Students should be able to:

- determining the constituents of food and diets
- use food composition tables to calculate nutrients components in food
- use INFOODS learning module of FAO

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

NUT 302: Diet Therapy and Hospital Practical I (3 Units)

Course Contents

Fundamental principles of Diet therapy. History, aims, scope and roles of dietitians. Introduction to different diets (fluid diet, soft diet low residual diet etc.) Dietary management in disease states (gastrointestinal disorders, various DR-NCDs including Diabetes hypertension etc.) consideration of factors in patients care plan, coordinated nutritional services for patients, therapeutic adaptation of the normal diet and problems of planning therapeutic diets using local foods. Principles or nutritional modification for the underweight, acute malnutrition (moderate or severe SAM/MAM), nutrient need in surgery – postoperative nutritional care following gastrointestinal tract surgery; study of the diet for the vulnerable groups, diarrhoea in infants; oral rehydration. Use of food exchange list. Nutritional care process. Critical care.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Plan, prepare and present various therapeutic diets in the management of diseases.
- Conduct case studies using nutrition care process approach to manage patients

Skill

Students should be able to:

- plan dietary treatment for malnutrition and diseases condition
- modify diets for management of diseases using normal and local foods

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

NUT 303: Nutrition in Life cycle (2 Units)

Course content

Detailed view of Nutritional foundations necessary for human growth, development, reproduction, health and well-being in each stage of the human life cycle. The Life stages are preconception, pregnancy and lactation, infancy, childhood, adolescence, adulthood, and old age. Recommendation and consequences for health and diseases throughout the life cycle.

Course Learning Outcomes:

At the end of this course, students should be able to:

Relate foods and nutrients to the biological requirements of human at different stages of the lifecycle

- Generate resources to summarize and communicate nutritional information compiled from official recommendations and scientific sources
- Explain, compare, and contrast the r nutritional requirements of human during different stages of the lifecycle
- Relate the nutritional concerns for specific to each stage of the human life cycle to consequences for health diseases.
- Explain and reflect the consequences of physical, biochemical, psychological, social and physiological factors impacting nutritional intake and status in the human life cycle.

Skill

Students should be able to:

- prescribe adequate meal to meet nutritional requirement of each life cycle

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 304: Research Methods in Nutrition and Dietetics (3 Units)

Course Contents

Research methodologies currently in use in nutritional studies. Research Ethics. Research design. Sampling techniques and sample size determination. Quantitative and Qualitative Research Methods: Type and design of questionnaire, Focus Group Discussion, Key Informant Interviews. Data collection, data analysis including use of computer based analytical packages

e.g. SPSS, EPI-INFO, and STATA etc. data presentation, interpretation and discussion of results. Use of Computer in Research (Internet Access). Techniques used in nutrition studies involving laboratory animal and man PER, NPU, BV, NDPE etc. use of experimental diets, balance studies, chemical and biological assays.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Outline the principles of scientific research.
- Explain the concept of hypothesis formulation and testing.
- Design and implement research in nutrition and dietetics
- Discuss implementation Science in Nutrition
- Apply statistical software in the analysis of nutrition research, organization of scientific report

Skill

- Students should be able to use nutritional survey software such as Nutrisurvey, ENA, WHO Anthro etc.
- Formulate and test hypothesis

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 305: Food Commodities and Products

(2 Units)

Different types of foods and agricultural products, their structures and composition. Vegetables, fruits, cereals, palm-wine, roots, and tubers; sugar cane, oil palm, meat, milk, cheese, butter, sausage, ham, fish, orange, mango and other juices. The processing and storage of these food products. Post-harvest physiology of food items. Development and marketing of raw food products, techniques and problems of developing, fabricating and merchandising. Ingredient regulations; taste panels, market testing, market research, and patents; making of human food from local foodstuff.

Course Learning Outcomes:

At the end of the course, students should:

- identify the different types of foods and agricultural products
- be familiar with processing and storage of agricultural food products
- understand techniques for development and marketing of raw food products
- describe methods of ingredients regulations

Skill

- Students should be able to process raw foods into new products

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 307: Food Preparation and Management (2 Units)

Course Contents

Special techniques in food preparation. Planning adequate diets for the family, pregnant and lactating mothers, infants, adolescents and old members of the family. Introduction to the preparation of different food groups. Meat and poultry, milk and milk products, egg and sea food. Fruits and vegetables. Cereals and cereal products. Beverages and drinks. Practical on effect of heat application on texture, taste and appearance of food.

Learning Outcomes

At the end of the course, students should be able to:

- i. prepare food from different food groups
- ii. plan family meal for different age groups
- iii. prepare and serve local beverages and drinks
- iv. apply aesthetic in serving food for families and for special occasion; and
- v. manage and use leftover foods.

Skill

Students should be able to:

- prepare meals for special groups
- cook to retain nutrient needs of food products

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	30%
Examination	40%

NUT 309: Introduction to Clinical Nutrition (2 Units)

Course Contents

Malnutrition as a health problem. Nutritional problems of public health importance. Causes of Nutritional problems. Prevention of nutritional problems. Classification of nutritional diseases, diseases due to biological and chemical toxicants in foods. Diet and dental diseases. Diet and cancer. Nutritional basis of diseases- renal, liver, gastrointestinal, Diabetes, hypertension etc. Nutritional application to management of diseases. Inborn errors of metabolism, metabolic diseases and allergies. Nutrition and immunity. Parental nutrition.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the concept of malnutrition
- Describe the conceptual framework for the courses of malnutrition

- Explain nutrition-related diseases
- Give overview of nutrition in the prevention and management of diseases

Skill

Students should be able to:

- identify nutritional problems of public health importance
- prescribe diets to manage diseases

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 399: Students' Industrial Work Experience (3 Units)

Course Contents

Students will be posted to recognized and relevant placement areas of their choice during the industrial training. Six (6) months of the industrial training will be spent in hotels, food industry and any other food and nutrition related establishment. Continuous assessment of students will be undertaken jointly by their industrial-based supervisors, ITF officials and institutional supervisors. Finally, students on returning to the institution will present a seminar on major duties performed and skills acquired during the training. Grades are allotted according to ITF directives.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Conduct six (6) months of the SIWES in food/nutrition-related industry/organization
- Gain experience and report on activities conducted during the six (6) months of the in food/nutrition-related industry/organization

Skill

- acquire knowledge in standard food recipe
- identify food recipe that may create nutritional problems
- evaluate food recipes

Grading Systems for the course

The course will be graded as follows:

Attendance	10%
Seminar Presentation	30%
Log Book	40%
Supervisor's Assessment	20%

PART 4 COURSES

NUT 401: Advanced Food Preparation (2 Units)

Course Contents

The application of principles of nutrition and management to planning and preparation of meals for special groups (institutions: boarding schools, remand homes, orphanages, armed forces, prisons, hospitals, etc.), and special occasions. Control in food experimentation, developing food demonstration techniques; quality characteristics of some important traditional Nigerian food ingredients; strategies for improving nutrient value and utilization of the traditional and non-traditional meals.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the principles of food preparation
- Describe methods of preparing different types of foods and meals for special groups
- Describe food demonstration techniques
- List the strategies for improving nutrient value and utilization of the traditional and non-traditional meals

Skill

- conduct research and controlled experiment with food
- prepare meals for special groups

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	30%
Examination	40%

NUT 403: Community Nutrition (3 Units)

Course Contents

Concept of community nutrition. Planning, organization and evaluation of Community Nutrition programmes (concept of community participation, social mobilization, participatory monitoring and evaluation). Assessment of ecological factors affecting community nutrition. Methods of Assessment of nutritional status of individuals and groups in a community. Use of growth and development chart. Economic aspects of nutrition. Food budgets. Food habits. Surveys in rural and urban communities. Applied nutrition programmes and interventions (Nutrition specific and sensitive interventions). School feeding programmes. Nutrition rehabilitation centers. Nutrition and National harmony. Nutrition information and surveillance system. Field visits to communities for nutrition assessment and interventions.

Course Learning Outcomes:

At the end of this course, students should be able to:

- List strategies for the planning, implementation and evaluation of community nutrition programmes
- Assess factors affecting community nutrition

- Interpret food and nutrition survey data to guide community nutrition activities
- Discuss nutrition interventions in community

Skill

Students should be able to:

- carry out community assessment
- use of growth and development chart

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

NUT 405 Nutrition Education and Communication (2 Units)

Course Contents

The course should be delivered using the FAO ENACT course module. Definitions, goals and objectives of nutrition education; Learning objectives; Factors influencing teaching and learning; Nutrition problems and causes; The place of nutrition education in solving nutrition problems; Activity-oriented programmes adopted in fostering nutrition education and nutritional status of people; Communicating nutrition education – the source, the message (content) and the recipient; Nutrition education approaches; Learning methods (tutorials and mini projects) in nutrition education; Instructional technologies used in nutrition education; Programme planning and evaluation in nutrition education; Principles of nutrition advocacy; Behavioural change communication for healthy living; Information, education and communication (IEC) strategies; Communication skills and technical information.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the concept of Nutrition Education and Communication
- Develop communication skills
- Discuss the FAO ENACT Course
- Conduct field activities for the ENACT Modules
- Explain the concept of the monitoring and evaluation of nutrition education project

Skill

Students should be able to:

- conduct field activities for the ENACT Modules
- gain communication skills

Grading System for the course

The course will be graded as follows:

In-course	20%
Practical	20%
Examination	60%

NUT 407: Institutional Food Service Management

(2 Units)

Organizational structures in food service institutions and hospitals. Effective staffing, staff recruitment, discipline and management, staff welfare and work-output, sanitation and safety. Planning institutional catering for all age groups. Menu planning, budgeting, book-keeping. Nutritional consideration of institutional meals. This course offers practical experiences.

Course Learning Outcomes:

At the end of the course, students should:

- understand organization structure in different food service institutions
- identify the nutritional consideration of institutional meals
- be familiar with the operation of the human resource department in institutions.

Skill

Students should be able to plan institutional catering for all age group.

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

NUT 409: Public Health Nutrition (2 Units)

Course Contents

Conceptual framework of causes of malnutrition. Nutritional problems of public health importance in Nigeria. Principles of Nutrition Epidemiology. Socio-economic effect of nutritional problems. Effect of malnutrition on physical and mental development. Interventions to improve health and nutritional status of people e.g. Micronutrient deficiencies control (fortification, supplementation, and dietary diversification), child survival strategies, and Essential Nutrition actions, nutrition sensitive and nutrition specific interventions. Food sanitation and safety. Environment and nutrition. Development of primary health care and nutrition in Nigeria. Nutrition and Infection. Nutrition and HIV/AIDS. Maternal and child nutrition including breastfeeding and child spacing. Management of acute malnutrition (CMAM, SAM).

Course Learning Outcomes:

At the end of this course, students should be able to:

- Assess the nutritional status of a community-anthropometry, clinical signs, vital statistics, ecological factors, food consumption, and morbidity, mortality biochemical data.
- Enumerate the determinants of the nutritional status of a community
- Organize, plan and evaluate sustainable nutrition intervention programmes.
- Identify clinical, social and environmental context of malnutrition.

Skill

Students should be able to identify public health issues

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 411: Seminar in Nutrition and Dietetics & Proposal Writing (2 Units)

Course Contents

Proposal writing guidelines; goals and objectives; proposal writing and presentation techniques (PowerPoint presentation, etc.); topic selection, justification, objectives, literature search, methodology, results and discussion. Referencing etc. Each final year student is expected to present an oral report on contemporary nutrition and dietetics issue based on library research.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Acquire presentation skills
- Describe how to search for literature
- Explain citation and referencing styles
- Discuss the concept of activity and/or research proposal writing
- Present seminar on contemporary nutrition and dietetics

Skill

Students should be able to:

- analyze data
- write term paper
- prepare power point for presentation

Grading System for the course

The course will be graded as follows:

Attendance	10%
Oral Presentation	30%
Report	40%
Power point	20%

NUT 413: Nutrition Counselling (2 Units)

Course Contents

Definition and concepts of counselling. Roles of Dietitians/ Nutritionists. Dietary counselling for target patients, application of Behavioural Change Communication for healthy living. Counsellor–Patient relationship. Problems/Barriers to Communication in relation to patients. Development of personal philosophy to problem solving. Different approaches to counselling; steps in dietary counselling. Nutrition counselling at home and in the hospital. The concept of change: The nature of dietary change, implication of dietary change, adapting to dietary change. Patients interviewing techniques. Clients' compliance and associated factors including follow up.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the concept of nutrition counseling
- Discuss the guidelines and roles of nutritionist/dietician in nutrition counseling
- Develop communication and interview techniques
- List the rights of the client in counseling
- Apply social and behaviour change communication strategies in counselling for healthy diet
- Discuss approaches of nutrition counselling

Skill

Students should be able to:

- counsel patient
- communicate effectively

Grading System for the course

The course will be graded as follows:

In-course	10%
Practical	30%
Examination	60%

NUT 415: Nutritional Assessment and Food Consumption Studies (2 Units)

Course Contents

Socio-cultural patterns of food behaviour, food habits, and determinants of food choice and nutrition transition. Execution of nutrition surveys of individual and groups in institution, in urban and rural setting. Methods used in nutrition surveys: anthropometry (stunting, wasting, underweight, overweight/obesity), food balance sheets, morbidity and mortality vital statistics, clinical signs, growth monitoring, growth chart methods construction and use of questionnaires, various parameters used in food consumption surveys. methodology in collecting food consumption data (direct methods: weigh food intake, 24-hour dietary recall, food frequency questionnaire, estimated food record, etc.) and indirect methods - food balance sheet, data processing and calculation of various nutrients, interpretation of data collected and use of survey results. Food composition tables.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the direct and indirect methods of nutrition assessment:
- Demonstrate anthropometric, biochemical, clinical and dietary intake assessment methods
- Identify the various parameters used in food consumption survey
- Discover the socio-cultural patterns of food behavior, food habits, and determinants of food choice and nutrition transition.

Skill

Students should be able to:

- collect anthropometric data for survey
- identify clinical signs of malnutrition

- plan diet for individuals and group
- assess diet of individuals and household

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	30%
Examination	40%

NUT499: Students' Industrial Work Experience II (SIWES II) (6 Units)

Course Contents

Students will be attached to a hospital/health care centre for a period of six months under the supervision of Registered Dietitian-Nutritionists. They will be exposed to hospital dietetics practice which includes the use of therapeutic diets in the treatment of diseases, counselling of patients/clients, preparation of various therapeutic diets such as clear fluid diet, soft diet, bland diet, and nutrient controlled diets. Practical classes in assessing dietary intake, designing diets and preparing therapeutic diets are an essential part of this course. Students will be graded based on seminar presentation, assessment of their logbooks, attendance and general assessment from their industrial based supervisor.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Conduct six (6) months of the SIWES in hospital/health care centre
- Gain experience and report on activities conducted during the six (6) months of the in hospital/health care centre

Skill

- manage patients with therapeutic diets
- assessing dietary intake
- counsel patients/clients

Grading System for the course

The course will be graded as follows:

Attendance	10%
Seminar Presentation	30%
Log Book	40%
Supervisor's Assessment	20%

PART V COURSES

NUT 501: Advances in Human Nutrition (2 Units)

Course Contents

Priority areas of research in human nutrition in developing and developed areas of the world. Energy balance in man. Measurement of human body composition. Nutrition, learning and mental development. Emerging issues in Human Nutrition and Dietetics: Nutrigenomics, Foetal origin of degenerative diseases, Diet related non-communicable diseases: risk factors, prevention and management; Human right approach to adequate food and nutrition, IYCF and

individualized nutrition. Nutrition in Sport and Human Kinetics, Nutraceuticals. Phytochemicals in Human Nutrition, Functional foods, bio-fortification etc. Computer-aided methods in dietary intake measurement; Issues on Genetically Modified Foods. Food System and Sustainable Diet. Nutrition and Climate change.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Identify the areas of research in human nutrition in developing and developed areas of the world
- Discuss emerging issues in human nutrition and dietetics
- Explain the concept of nutraceuticals and functional foods
- Discuss the concept of nutrigenomics and nutrigenetics
- Discuss the concept of food systems for sustainable healthy diets
- Discuss the concept of genetically modified diets
- Explain the concept of nutrition and climate change

Skill

- use Computer-aided methods in dietary intake measurement
- review articles and publications on emerging issues in Nutritiorelation**system for the course**

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 502: Diet Therapy & Hospital Practical II (2 Units)

Course Contents

The course deals with the planning, preparation and presentation of various therapeutic diets e.g. standard/normal, fluid, soft, low/high residue, gastric, low calorie, diabetic, high protein, low protein, low salt, low fat, low purine, acid ash/alkaline diets. The practical is based on management of the various non-communicable nutrition-related diseases. Case studies using Nutrition Care Process Approach to Manage Patients

Course Learning Outcomes:

At the end of this course, students should be able to:

- Plan, prepare and present various therapeutic diets in the management of diseases.
- Conduct case studies using nutrition care process approach to manage patients

Skill

Students should be able to:

- manage diseases with therapeutic diets;
- provide dietary counseling to patients.

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	30%
Examination	40%

NUT 503: Nutritional Epidemiology (2 Units)

Course Contents

Principles of Nutritional Epidemiology, Reviews of Assessment methods for Populations and Individuals. Diets/Disease Relationships, Correction of Measurement Errors in Nutritional Study, Nutrition Survey & Research Methods in Nutrition, Measures of Association, Inferential Nutritional Epidemiology & Statistics, Multiple determinants of Diseases, Nutritional Surveillance & Notification, Evaluation of Diagnostic and Screening Tests-Specificity, Sensitivity, Validity and Predictive Values, Application of Nutritional Epidemiology to Health care Delivery and Systems Development.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the Principles of Nutritional Epidemiology
- Describe the methods for nutrition epidemiology research
- Discuss with qualitative, quantitative and mixed methods/design of research
- List the application of Nutritional Epidemiology in the prevention of diseases
- Describe the statistical analyses methods

Skill

Students should be able to:

- use qualitative, quantitative and mixed methods/design of research

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 504: Food Chemistry and Toxicology (2 Units)

Course Contents

Structure, chemistry, properties and interactions of food constituents, nutrient-drug interaction, effects of these interactions on nutrient availability in foods; Health and consumer issues related additives, pesticide residues, contaminants, carcinogens, drugs/ hormones, and nutrient supplements in relation to content on natural and synthetic chemicals. Environmental factors affecting nutrient stability in food products. Food additives. Food borne diseases. Food safety, Good Manufacturing Practices, and concepts of Hazard Analysis and Critical Control Point (HACCP).

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the basic concept of food chemistry and toxicology
- Describe the structure, chemistry, properties and interactions of food constituents, including nutrient-drug interaction and their effects on nutrient availability
- Discuss the factors affecting nutrient stability in food products
- Explain with the health and consumer issues related additives, pesticide residues, contaminants, etc.
- Discuss food safety, good manufacturing practices, and concepts of Hazard Analysis and Critical Control Point (HACCP).
- Discuss the national and international guidelines and limits of toxins in foods

Skill

Students should be able to:

- determine Hazard Analysis and Critical Control Point (HACCP).

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 505: Sports Nutrition (2 Units)

Course Contents

Introduction to Sport and Exercise Nutrition. Protein needs for exercise and eating for muscle gain. Nutrition for training and for competition preparation. Fluid and fuel intake during competition and training. Vitamins, minerals, antioxidants and the athlete's health. Dietary supplements and ergogenic aids. Weight restricted and weight sensitive sports. Strength and power sports. Nutrition, physical activity and health, Special Populations and Nutritional needs in special environments

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the concept of sports nutrition
- Discuss the nutrient requirements for different physical activities
- Explain the concept of nutrition, physical activity and health

Skill

Students should be able to:

- Counsel an athlete
- Prescribe diet for athletic needs

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 506: Consumer Education (2 Units)

Course Contents

Definition and principles of Consumer Education. Analysis of economic forces affecting nutritional status of individuals and families as consumers of goods and services; creating awareness of the rights to food and responsibilities of consumers in the market place, e.g. nutrition labeling, food safety, street food vending, personal and environmental hygiene, food quackery and understanding of food based dietary guidelines.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Discuss the concept of consumer education
- Discuss consumer protection laws
- Explain the rights and responsibly of consumers
- Explain the role of consumer protection agencies

Skill

Students should be able to:

- interpret food labels
- raise awareness of the rights to food

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 507: Recipe Development and Testing (3 Units)

Course Contents

Application of optimization principles in food formulation and recipe development. Fundamental principles of food quality evaluation and development of standards (taste, flavour, shape, size, texture, colour and appearance). Emphasis on development and testing of more economical and nutritious foods from familiar and commonly used acceptable ingredients. Novel food development. Guidelines for conducting sensory evaluation. Selection of participants, presentation, testing and analysis of results. Practical classes on recipe development, preparation and testing. Reporting and interpretation of results.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Apply optimization principles in food formulation and recipe development

- Discuss the fundamental principles of food quality evaluation and development of standards
- Explain the guidelines for conducting sensory evaluation
- Describe methods of reporting and interpretation of results of recipe development and testing

Skill

Students should be able to:

- carry out sensory evaluation of food products
- analyze sensory results

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	30%
Examination	40%

NUT 508: International Nutrition (2 Units)

Course Contents

Global Nutrition situation. Globalization of food systems, Concepts of food and nutrition security and strategies. Global harmony through nutrition, Population, gender and world economies. Food biotechnology and nutrition; Multiple burden of malnutrition. World food and nutrition policy formulations. Global environmental protection and nutrition. Nutrition response in emergency. Role of international relief agencies. Political dimensions of Food and Nutrition. United Nation Agencies, Bilateral Organizations and International NGOs. Food subsidy as part of social protection. Nutrition interventions – supplementary feeding programmes (Food aids, food subsidy, food stamps, food for work etc.), Scaling Up Nutrition Movement (SUN).

Course Learning Outcomes:

At the end of this course, students should be able to:

- Analyze the global nutrition situation
- Explain the concept of globalization of food systems
- Discuss the international nutrition policies and politics
- Explain the nutrition-related events commemorated globally
- List the roles of international relief agencies, UN and NGOs in international nutrition arena.

Skill

Students should be able to advocate for Food and Nutrition policies

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 509: Seminar in Human Nutrition and Dietetics and Proposal Writing II (2 Units)

Proposal writing guidelines, goals and objective, development of study/data harvesting instruments. Basic statistical analysis of data. Literature review, proposal writing and presentation techniques. Use of computer and the internet in research. Students to be examined through – oral presentation, term papers etc.

Course learning outcomes

At the end of the course, students should:

- understand steps in proposal writing
- review literature
- set goals and objective of research
- reference reviewed literature

Skill

Students should be able to:

- analyze data
- write term paper
- prepare power point for presentation

Grading System for the course

The course will be graded as follows:

Attendance	10%
Oral Presentation	30%
Term paper	40%
Power point	20%

NUT 510: Research Project (4 Units)

Course Contents

The student is expected to study critically and carry out research on a specific problem in the area of nutrition and dietetics under the supervision of an academic staff. The student will present a project report and defend his/her findings before a panel of examiners.

Learning Outcomes:

At the end of this course, students should be able to:

- Conduct research project on a specific problem in the area of nutrition and dietetics under the supervision of an academic staff.
- Prepare report, present and defend findings of the project before a panel of examiners.

Skill

- write a report on research
- present research

Grading System for the course

The course will be graded as follows:

Attendance	10%
Oral Presentation	30%
Report	40%
Power point	20%

NUT 511 Nutrition in Emergency (2 Units)

Definitions of emergency, concept of food security and nutrition in emergencies, types and causes of emergency, Nutrition in emergency preparedness, Nutrition emergency, nutritional problems of internally displaced persons (IDPs) and refugees. Humanitarian response to emergency, food aids and Nutrition. Information systems in emergency. Nutrition procedure in times of disasters including famine relief operations. Nutrition rehabilitation center. Consequences of migration on Nutritional Status and quality of life among IDPs and Refugees. Major Nutritional deficiency in emergencies. Meeting the special nutritional needs of the most vulnerable persons during emergency. Infant and young children, pregnant and lactating mothers, elderly. Guiding principles for feeding infants and young children in emergency. Preventing and controlling micronutrient deficiency in populations affected by emergencies.

Course Learning Outcomes:

At the end of this course, students should be able to:

- define concept of food security and nutrition in emergencies
- identify nutritional problems of internally displaced persons
- organize Nutrition rehabilitation center
- explain the guiding principles for feeding infants and young children in emergency
- determine humanitarian response to emergency

Skill

Students should be able to

- assess nutritional problems of internally displaced persons
- use information systems for data collection in emergency

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 512: Nutrition Planning, Policy and Advocacy (2 Units)

Course Contents

Applied nutrition programme planning and implementation. Nutrition policy and governance. Public private partnership. Link between Nutrition and Development. Multisectoral linkages (Agriculture, Nutrition, Health and Education sectors etc.) in Nutrition programme planning and implementation. Monitoring and Evaluation of Nutrition programme. Food laws and regulations. Nutrition labelling. Applications of Codex Alimentarius Commission. Poverty reduction and nutrition security. Nutrition and social protection. Basic concepts of Advocacy: Definition, Importance, Types, process of developing effective advocacy plan, Advocacy tools, development and implementation strategies for effective advocacy.

Course Learning Outcomes:

At the end of this course, students should be able to:

- Explain the existing national and international policies on food and nutrition

- Discuss the policy formulation process and policy contents
- Describe the link between nutrition policy and governance
- Explain the importance of multisectoral nature of nutrition and relevance of coordination
- Explain the basic concepts of advocacy and advocacy cycle

Skill

Students should be able to plan and implement nutrition programs

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

NUT 513: Weight Regulation and Obesity (2 Units)

Evaluation and application of theories of weight control and eating behavior to weight reduction and maintenance programs, with emphasis on development of scientifically based methods to promote appropriate body weight. Scientific basis of energy balance, energy metabolism, and the regulation of body weights in humans. Introduction to the fundamentals of the biology of appetite regulation and genetics of obesity. The critical independent and inter-related roles physical activity, healthy nutrition, and health behaviour change have to prevent and reduce obesity in children and adults are emphasized throughout the course. Psychosocial factors related to obesity and emerging strategies for obesity treatment such as pharmacological and surgical approaches.

Learning Outcomes:

At the end of this course, students should be able to:

- determine the biology of appetite regulation and genetics of obesity
- identify psychosocial factors related to obesity
- explain the scientific basis of energy balance, energy metabolism, and the regulation of body weights in humans

Skill

Students should be able to:

- manage obesity
- prescribe diet in weight maintenance

Grading System for the course

The course will be graded as follows:

In-course	30%
Practical	10%
Examination	60%

NUT 514: Entrepreneurship in Human Nutrition and Dietetics (2 Units)

The course aims at re-orientating students towards job-creation mindset in their field of study rather than the fixed attitude of job seeking. It will equip them with the skill required in

establishing businesses, and making them add value to existing system, if employed in organizations.

Course learning outcomes

At the end of the course, students should:

- identify areas of opportunity for wealth creation in Human Nutrition and Dietetics
- develop business proposal
- identify means of funding of businesses

Skill

Students should be able to develop business plan on food related business of interest

Grading System for the course

The course will be graded as follows:

In-course	30%
Attendance	10%
Examination	60%

M. LIST OF CURRENT ACADEMIC STAFF AVAILABLE FOR THE PROGRAMME IN THE PRESENT UNIT

Table 1: List of Current Academic Staff

S/N	Names	Rank	Qualifications	Department	Area of Specialization
1	Ogunba, B. O.	Professor	B.Sc. (Ife); M.Sc., Ph.D. (Ibadan)	Human Nutrition and Dietetics	Maternal and Child Nutrition
2	Olumakaiye, M. F.	Professor	B.Sc. (Ife); M.Sc., Ph. D. (Ibadan); PGD (Wa'gen)	Human Nutrition and Dietetics	Public Health Nutrition
3	Fadeiye, E. O.	Assistant Lecturer	B.Sc., NRD, MPH (Ife)	Human Nutrition and Dietetics	Nutrition and Dietetics
4	Popoola, B.R.	Graduate Assistant	B.Tech.(Ogbomoso) M.Sc. (Ibadan)	Human Nutrition and Dietetics	Food Science and Nutrition

Table 2: List of Associate Lecturer

S/N	Name of Academic Staff	Area of Specialization	Discipline	Qualifications	Rank	Employment Status
1	Onayade, A. A.	Epidemiology, Communicable Disease Control, Child Health	Community Health	MBBS (Lagos), MPH, DTM&H, FWACP	Professor	Full Time
2	Fatusi, A.O.	Adolescent Health	Community Health	M.B.Ch.B.(Ife) M.Sc, FMCPH	Professor	Full Time
3	Ijadunola, K.T.	Adolescent Health	Community Health	M.B.Ch.B.(Ife) M.Sc, FMCPH	Professor	Full Time
4	Esimai, O. A.	Maternal and Child Health, International Health	Community Health	M.B.Ch.B. (Ife) M.Sc, FWACP	Professor	Full Time
5	Ndububa, D.	Gastrointestinal Disorder, Role of Nutrition	Medicine	M.B.B.S, FWACP	Professor	Full Time
6	Kolawole, B. A.	Endocrine Disorder, Role of Nutrition	Medicine	M.B.Ch.B. FWACP	Professor	Full Time
7	Sanusi, A. A.	Renal Disorder, Role of Nutrition	Medicine	M.B.Ch.B. FWACP	Professor	Full Time
8	Adeniran, H. A.	Food Microbiology	Food, Science & Technology	B.Sc.; M.Sc., Ph. D. (Ife)	Professor	Full Time
9	Adewole, O.S.	Endocrine Pancreas, Prostate, Histology and Cytology	Anatomy	M.B.B.S, MSc., PhD	Professor	Full Time
10	Nwoha, P.U.	Neuroanatomy	Anatomy	B.Sc.; M.Sc., Ph. D.	Professor	Full Time

S/N	Name of Academic Staff	Area of Specialization	Discipline	Qualifications	Rank	Employment Status
11	Obatolu, V.A.	Nutrition Science	IAR&T	B.Sc. (Ife); M.Sc., Ph. D. (Ibadan)	Professor	Full Time
12	Fasoyiro, S. B.	Food Preservation and Safety	IAR&T	B.Sc., M.Sc., Ph.D. (Ibadan)	Professor	Full Time
13	Soyebo, K. O.	Resource Management	Family and Consumer Sciences	B.Sc., M.Sc., Ph. D. (Ife)	Professor	Full Time
14	Akintomide, A. A.	Cardiovascular Disorders and Role of Nutrition	Medicine	M.B.Ch.B. FWACP	Professor	Full Time
15	Ayoka A. O.	Cell Physiology, Neuro-endocrinology, Reproductive Physiology	Physiological Sciences	B.Sc.; M.Sc.; MPhil. (Pharmacology); Ph.D. (Physiology)	Professor	Full Time
16	Gbadamosi, S.O.	Food Chemistry	Food Science & Technology	B. Sc., M.Sc., Ph. D (Ife)	Professor	Full Time
17	Akomolafe. R. O.	G.I.T. Physiology, Renal Physiology	Physiological Sciences	B.Sc.; M.Sc.; Ph.D. (Physiology)	Reader	Full Time
18	Ogunlade, O.	Blood and Cardiovascular Physiology	Physiological Sciences	MBChB, MSc, PhD, FWACP	Reader	Full Time
19	Ayannuga, A.A.	Neuroanatomy	Anatomy	M.B.B.S, OOA, M.Sc.; Ph.D. (Ibadan)	Reader	Full Time
20	Komolafe, O.A.	Cardiovascular Anatomy	Anatomy	B.Sc.; M.Sc.; Ph.D. (Ife)	Reader	Full Time
21	Abiodun, A.A.	Musculoskeletal Anatomy	Anatomy	M.B.B.S, MSc. Lagos, FWACS (Ife)	Reader	Full Time
22	Emma-Okon. B. O.	Lipid in Health and Disease/Pathophysiology of Type 2 Diabetes	Medical Biochemistry	B.Sc.; M.Sc.; Ph.D. (Ife)	Reader	Full Time
23	Ikujenlola. A.V.	Food Science and Technology	Food Science and Technology	B.Sc., M.Sc., PhD (Ife) MNIFST	Reader	Full Time
24	Morakinyo, T. A.	Food Engineering	Food Science	B.Sc., M.Sc., PhD (Ife) MNIFST	Senior Lecturer	Full Time
25	Malomo, A. A.	Food Microbiology	Food Science	B.Sc., M.Sc., PhD (Ife) MNIFST	Senior Lecturer	Full Time

S/N	Name of Academic Staff	Area of Specialization	Discipline	Qualifications	Rank	Employment Status
26	Farinde, E. O.	Food Science	IAR&T	B.Sc. (Ife); M.Sc., Ph.D. (Ibadan)	Senior Research Fellow	Full Time
27	Asafa, M. A.	Blood and Cardiovascular Physiology	Physiological Sciences	MBCbB, MSc	Senior Lecturer	Full Time
28	Ofusori, D.A.	Gastrointestinal Anatomy	Anatomy	B.Sc.; M.Sc.; Ph.D. (Ife)	Senior Lecturer	Full Time
29	Adeyemi, D. O.	Reproductive Anatomy	Anatomy	B.Sc.; M.Sc.; Ph.D. (Ife)	Senior Lecturer	Full Time
30	Odukoya, S.A.O.	Reproductive Anatomy	Anatomy	B.Sc.; M.Sc.; Ph.D. (Ilorin)	Senior Lecturer	Full Time
31	Areola. J. O.	Natural Products	Medical Biochemistry	B.Sc.; M.Sc.; Ph.D. (Ife)	Senior Lecturer	Full Time
32	Akinsomisoye. O.S.	Endocrine Physiology, Reproductive Physiology	Physiological Sciences	B.Sc.; M.Sc.; Ph.D. (Physiology)	Senior Lecturer	Full Time
33	Arayombo, B.E.	Gastrointestinal Anatomy	Anatomy	B.M.L.S.(Ekpoma), M.B.Ch. B (Ife), M.Sc. (Ife)	Senior Lecturer	Full Time
34	Omole, J. G.	Nerve and Muscle Physiology, Respiration Physiology	Physiological Sciences	BNSc, RN, MBCbB, MSc	Senior Lecturer	Full Time
35	Olukiran. O. S.	G.I.T. Physiology Renal Physiology	Physiological Sciences	B.Sc.; M.Sc.; Ph.D. (Physiology)	Senior Lecturer	Full Time
36	Folorunso, A. A.	Food Products Development	Family, Nutrition & Consumer Sciences	B.Sc.; M.Sc.; Ph.D. (Abeokuta)	Senior Lecturer	Full Time
37	Olanipekun, O. T.	Nutritional Biochemistry	IAR&T	B.Sc. (Ado Ekiti); M.Sc. (Ib. Abk.) Ph.D. (Abk.)	Research Fellow I	Full Time
38	Adeniyi, T. T.	Toxicology	Medical Biochemistry	B.Sc; M.Sc Lagos	Lecturer I	Full time
39	Agunbiade. J. O.	Toxicology and Enzymology	Medical Biochemistry	B. Tech, M.Sc. (Ife)	Lecturer I	Full Time
40	Olodu, M. D.	Nutrition and Dietetics	Community Health	B.Sc. (Ife), NRD, M.Sc. (Ibadan)	Lecturer II	Full Time