

ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Home & Health Sciences)

Course: Applied Human Nutrition (7502)
Level: Post Graduate

Semester Autumn, 2012
Credit hours: 3(2+1)

CONTENT LIST

Following items are included in the study pack:

1. Course Book (Unit 1-9)
2. Theory Assignments One
3. Practical Assignment One
4. Assignment forms 06
5. Schedule for Submitting the assignment & tutorial meetings,

Note: If any item from the above-mentioned content is missing from your study pack, kindly contact:

Mailing officer
Mailing section
Services & Operational Block
Allama Iqbal Open University
Sector H-8, Islamabad
Ph.No 051-9057611-12

ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Home & Health Sciences)

WARNING

- 1. PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
- 2. SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIOU PLAGIARISM POLICY".**

Course: Applied Human Nutrition (7502)

Semester Autumn, 2012

Level: Post Graduate

Credit hours: 3(2+1)

Total Marks: 100

Pass Marks: 40

ASSIGNMENT No. 1

Note: Write answers to the following questions. Distribution of marks is given against each question.

- Q. 1 a) Describe the importance of nutrition during reproductive age. **(10)**
b) Enumerate factors related to impaired fertility in both men & women. **(10)**
- Q. 2 a) Draw food guide pyramid. Discuss importance of contribution of each food group for a balanced diet. **(10)**
b) Define vegan diet? How can you manage protein quality in such dietary regimen? **(10)**
- Q. 3 a) Compare nutritional requirement of pregnancy & lactation in normal situation. **(10)**
b) Enlist common health problems during pregnancy. Discuss management of nausea and vomiting during pregnancy. **(10)**
- Q. 4 What are the nutritional requirements during infancy? Describe common nutritional problems and their remedies during this period of life cycle. **(10)**
- Q. 5 Describe pattern of physical and cognitive development during pre-adolescent period. How can we manage overweight/obesity in school going children? **(10)**
- Q. 6 Write short notes on the following. Each note carries five marks. **(20)**
a) Appetite & food intake in toddlers.
b) Importance of intervention studies in improvement of nutritional status.
c) Management of Anorexia Nervosa.
d) Benefits of breast feeding to child & mother.

ASSIGNMENT No 2

Instructions

1. This assignment is of practical nature, you have to prepare/submit a research report on the selected topic in the workshop prior to the final examination.
2. The workshop component is mandatory for all the students, schedule of the workshop will be forwarded to you later by the host region.
3. You have to select any one among the given topics for preparation of this assignment but make sure that the topic relates to the place/province of your residence. This will help you to conduct survey/observation related to your own community.
4. The student is supposed to present and discuss this assignment in the presence of resource person and the course mates in the workshop, therefore transparencies, posters or any other illustrative material for effective presentation will be encouraged.
5. You are advised to review the literature according to the selected topic. If you need any guidance you may contact your tutor or the department of Home and Health Sciences A.I.O.U Islamabad.
6. Minimum number of respondents/subject to be included in the study must not be less than **fifty (50)**.
7. Your research report should include the following main headings:
 - a) Topic of the study
 - b) Introduction to the topic selected for research.
 - c) Objectives of the study.
 - d) Materials and methods of the study.
 - e) Review of literature on the subject both at national/international level.
 - f) Results and discussion.
 - g) Conclusion.
 - h) Recommendations.
 - i) Reference/Bibliography
 - j) Annexure.
6. Prepare three copies of this assignment one for you, second for the tutor and the third may be sent to the Department of Home and Health Sciences A.I.O.U for record and future reference.

Topics for Research (select any one and get it signed by the tutor concerned)

1. Select 50 married women (25 with kids and 25 without kids). Compare their nutritional status in terms of BMI; dietary intake and fertility history. Develop your research report based on the findings.

2. Interview a group of expectant mothers going through 1st trimester. Interview them for any special change in eating habits during pregnancy. Develop your research report based on findings.
3. Select a sizable sample of lactating mothers. Interview them for the given variables and compile a report based on your findings. (Age, parity, mode of feeding their infants, socioeconomic status, education, changes in routine eating habits, etc.) . Analyze the data and compare the variables for any significant findings.
4. Interview mothers with an infant child (age 0-6 months). Collect information on the given variables. (Weight of the child at birth, first food given after birth, type of milk being given, any food other than milk being fed to the child). Develop a report on your findings.
5. Interview mothers with an infant (age 6-12 months). Collect information on the given variables. (Nutritional status, type of milk being given, First weaning food given to the child, age of weaning etc). Develop a report on your findings.
6. Interview mothers with children suffering from food allergies. Take their clinical and dietary history. Develop a questionnaire to probe the causes. Write a report based on your findings.
7. Visit a government secondary school with permission of School management. Observe the school time eating practices of children. Write a report based on your findings.
8. Compare and contrast the nutritional status and eating practices of sedentary workers and labourers. Try to draw sample from same age group for both the categories. Compare their dietary intake with guidelines given in Food Guide pyramid.
9. Interview a group of people above the age of 70 for their dietary habits and nutritional problems. Compile a report based on your findings.
10. Study the prevalence of eating disorders among adolescents. Write a report based on your findings.

Note:-The required sample size can be taken from the community or from the relevant OPD of the Hospital.

STUDENT GUIDE

Course: Applied Human Nutrition (7502)
Level: Post Graduate

Semester: Autumn, 2012

Dear Student,

We welcome you to this AIOU Postgraduate level course of Applied Human Nutrition. This course is part of the Postgraduate Diploma in Dietetics, Post Graduate Diploma in Nutrition leading to M.S. Programme.

1. Course Objectives

The specific objectives of this course are as follows:

- a) To know the importance of balanced nutrition throughout the life cycle.
- b) To guide the individuals practically about the nutritional requirements of individuals at various stages of life cycle.

2. Details of the Course: Students should read the following details of the course carefully.

i) Study Book

“Applied Human Nutrition” comprises of nine units with credit weightage of 3(2+1). These units cover the contents which will help you to know the importance of nutrition and Nutritional problems throughout the life cycle, methods to detect these problems and ways to overcome such problems. You are further advised to do extra study related to the contents of the book. You are expected to search for the relevant material in papers/articles in research journals/magazines available at your local libraries and resource centers. Further you can discuss the different topics in the practical workshop with your class fellows, tutors and with resource persons. It will help you to uplift and enlighten your knowledge and information about a specific topic.

ii) Research/Review Paper

For postgraduate students, the element of research cannot be ignored. In various course of this programme, you will come across small research papers/review papers, which require review of literature besides research on a small scale. In this specific course you are expected to pick any one of the nutritional problem from your community. It is important that the topic should be relevant to the course e.g. It can be about some nutritional deficiency or any specific life cycle related nutritional problem.

Students will prepare this report/assignment before the final workshop which is usually held at the end of the semester at a specific center. This small report will be presented by you before the tutorial group and the tutor in final workshop. The tutor will assess the quality and authenticity of the report and record the marks obtained by the students. These marks will be included in the final examination. This report/assignment consists of 100 marks and is compulsory.

iii) Part Time tutors

Students are allocated a part time tutor. The name and address of your tutor will be provided later. The tutor will help and guide you in studying the books and conducting activities related to study units. You are expected to take full advantage of the tutor's knowledge and experience. These tutors are also responsible for marking your assignments. Make all efforts to complete your written assignments in time according to the prescribed schedule. Try your best to attend all the study sessions according to the time table provided to you.

iv) Assignments

This course includes two assignments which are compulsory for successful completion of the whole course i.e. each assignment is of 100 marks, out of these, students obtaining a minimum of 40% marks will be declared pass. Therefore, it is important to submit the assignments well prepared and in time. The schedule of submitting the assignment is being provided separately. Please follow the schedule. The tutor will send the marked assignment back to the students within fifteen days. If you do not receive the marked assignment within fifteen days please contact your tutor or your local regional office of the Allama Iqbal Open University. Never forget to attach the prescribed forms duly filled along with the complete assignments. The study units on which each assignment is based are identified. However, for your convenience we are providing the related information for follow up.

Assignment No.	Units
1	1-7
2	Research Report

v) Method of Study

A study period of *sixteen* weeks has been allocated for studying this course through distance learning whereas *seventeenth and eighteenth weeks* are kept for general assessment and for final examination. You are expected to spend four weeks on studying first three units of the book. This will help to improve your reading speed and get familiar with the contents of the units.

Sr.No.	Unit No.	Assignment No.	Study Period
1.	1 – 2		Four weeks
2.	3 – 5	1 st	Four weeks
3.	6 – 8		Four weeks
4.	9	2 nd	Four weeks
5.	Preparation for Exams		Two weeks

The next three units i.e. 3-5 will be easier for you and you will be able to study them in comparatively less time. You can spend three weeks on studying these three units. During the eighth week you can complete your 1st assignment and dispatch it to your tutor.

Unit 6, 7 & 8 can be studied during 9th, 10th and 12th week and the last unit i.e. unit 9 can be studied in the 13th week and the 2nd assignment can be completed along with 14th, 15th and 16th week. Assignment 2 i.e. report, which students have to

present in the final workshop, should be completed before the starting of the workshop in the end of the semester.

The last two weeks can be kept for examination and its preparation. The 1st assignment will be based on 1-3 units and 2nd assignment on 4-7 units. It is therefore, necessary to study the units completely before starting work on assignments. Try to complete the practical activities related to all units in time according to the schedule.

vi) Workshop

Workshop will be arranged for three days. Schedule of the workshop and venue will be sent to the student during the study period. Workshop will cover some of the lectures of the specialists on important topics, 2nd assignment will also be presented and evaluated in this workshop. The tutor will provide guidance for the workshop. Attendance in workshop is compulsory for all the students.

vii) Final Examination

At the end of the course there will be a final examination. All the students will be expected to take this examination in the examination halls specially established for this purpose.

viii) Schedule for teaching sessions.

The teaching sessions are arranged on fortnightly basis. The specific dates in the form of tutorial schedule are being provided separately. Try to attend these meetings regularly to get proper guidance from your tutor.

Course Coordinator

Course Outline: APPLIED HUMAN NURITION (7502)

Level: PGD/M.S

Credit Hours: 3(2+1)

Unit 1: PRECONCEPTION AND NUTRITION

- Preconception Overview.
- Nutrition Related Disruption in Fertility.
- Obesity and Fertility.
- Polycystic Ovary Syndrome.

Unit 2: NUTRITION DURING PREGNANCY

- Embryonic and Fetal Growth and Development.
- Pregnancy Weight Gain.
- Nutrition and Out Come of the Pregnancy.
- Common Health Problems during Pregnancy.
- Dietary Guidelines during Pregnancy.

Unit 3: NUTRITION AND LACTATION

- Advantages of Brest Feeding.
- Breast Milk supply and Demand.
- Maternal Diet during Lactation.
- Factors Influencing Breastfeeding Initiation and Duration
- Common Brest Feeding Conditions.

- Medical contradictions in Breast Feeding.

Unit 4: INFANT NUTRITION

- Assessing Newborn Health.
- Energy and Nutrient needs.
- Development of Infant Feeding Skills.
- Common Nutritional Problems and concerns.
- Infants at Risk

Unit 5: TODDLERS AND PRE-SCHOOLER NUTRITION

- Normal Growth and Development.
- Energy and Nutrient needs.
- Common Nutritional Problems.
- Nutrition Related Conditions.
- Food Allergies and Intolerance.

Unit 6: CHILD AND PRE-ADOLESCENT NUTRITION

- Normal Growth and Development.
- Energy and Nutrient Needs.
- Common Nutritional Problems.
- Prevention of Nutrition Related Disorders.
- Dietary Recommendations.

Unit 7: ADOLESCENT NUTRITION

- Normal Physical Growth and Development.
- Health and Eating Related Behaviours.
- Energy and Nutrient Requirements of Adolescents
- Overweight and Obesity
- Eating Disorders.

Unit 8: ADULT NUTRITION

- Physiological changes of Adulthood.
- Maintaining a Healthy Body.
- Dietary Recommendations.
- Nutrient Recommendations.
- Nutrition Intervention for Risk Reduction.

Unit 9: GERIATRIC NUTRITION

- Physiological Changes.
- Nutritional Risk Factors.
- Dietary Recommendations and Food Safety.
- Nutrient Recommendations.
- Nutrition in Special Clinical Conditions.

Recommended Books:

1. *Judith E. Brown Nutrition (through the life Cycle) Wadsworth, a division of Thomson learning, Inc. 2005, Printed in United States of America.*
2. *Prakash Shetty. Nutrition through the life cycle (2002) Leatherhead International Ltd/Royal Society of Chemistry, London/Cambridge.*
3. *Human Nutrition Code No. 863 (AIUO Compiled book and Printed by NBF)*