1	**Course title**	Assessment of Nutritional Status
2	**Course number**	603762
3	**Credit hours (theory, practical)**	2 (1theory, 2 practical)
	Contact hours (theory, practical)	2 (1theory, 2 practical)
4	**Prerequisites/co-requisites**	-
5	**Program title**	MSc in Human Nutrition and Dietetics
6	**Program code**	036
7	**Awarding institution**	The University of Jordan
8	**School**	Faculty of Agriculture
9	**Department**	Nutrition and Food Technology
10	**Level of course**	Graduate
11	**Year of study and semester (s)**	
12	**Final Qualification**	MSc-
13	**Other department (s) involved in teaching the course**	
14	**Language of Instruction**	English
15	**Date of production/revision**	Summer 2019/2020

16. Course Coordinator:

Office numbers, office hours, phone numbers, and email addresses should be listed.
Room #102, Ext. 22406, rima@ju.edu.jo

Office hours					
Day/Time	**Sunday**	**Monday**	**Tuesday**	**Wednesday**	**Thursday**
	1:00-2:00		1:00-2:00		1:00-2:00

17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.

18. Course Description:

As stated in the approved study plan.

Study of indicators and criteria used in the evaluation of the nutritional status at the individual and community levels, including measurements of anthropometry, biochemical data, dietary intakes, health statistics and socioeconomic data; the interpretation of results and proposing solutions for improving the nutritional status .

19. Course aims and outcomes: A- Aims:

1. Know the main three forms of nutritional assessment systems (surveys, surveillance or screening) and all nutritional assessment methods utilized by each system.
2. Know the purposes of food and nutrition surveys and its role in nutrition intervention planning.
3. Know the principles and methods of assessment of the nutritional status of individuals, household and communities.
4. Know principles and methods of validity and reliability testing of questionnaires in assessment of the nutritional status of individuals, households and communities.
5. Be able to select and perform the most appropriate methods to be used for assessment of the nutritional status of individuals, households and communities.

B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to:

A. Knowledge and Understanding: Student is expected to

A1-Know means of assessing dietary intake, body composition and growth, and micronutrient status and under what circumstances they would be used.

A2- Describe performance characteristics (validity, reliability, dependability, sensitivity and specificity) of nutritional status indicators and measures and how they are assessed.

A3-To gain an understanding of the rationales, advantages, and disadvantages of various approaches of nutritional assessment.

A4-Identify principles of biochemical assessment focusing on Vitamin A, Vitamin D, Folic acid and vitamin B_{12}, iron, calcium and zinc.

B. Intellectual Analytical and Cognitive Skills: Student is expected to

B1- Know the techniques required to plan, conduct, analyze and interpret food and nutrition surveys of individuals, household and communities.

B2- Gain an understanding of the appropriate applications of the various methods and the interpretation of results.

B3- Identify and compare/contrast methods of assessing body size and composition, dietary intake and

C. Subject- Specific Skills: Students is expected to:

C1-Obtain hands-on experience and basic training in common anthropometric methods.

C2- Be able to select and perform the most appropriate methods to be used for assessment of malnutrition in children.

C3- Collect, analyze and interpret nutritional status data and be able to summarize findings in a report.

C4- Gain skills on identifying and interpreting clinical signs and symptoms in nutritional assessment of individuals.

D. Transferable Key Skills: Students is expected to

D1- Participate in discussions about current controversies in nutritional status assessment.

D2- Understand questions that can be addressed in populations using nutritional status Indicators.

D3- Apply the tools of nutritional assessment to clinical cases including it's use in the planning, intervention, and evaluation of patient care.

20. Topic Outline and Schedule:

A. Theoretical Part

Topic	# lect/ Week	Instructor	Achieved ILO/s	Evaluation method	Reference
1.Definitions and introduction	1/1st week		A1		Lecture notes
2. Nutritional assessment systems a. Factors affecting the design of nutritional assessment systems: i. Validity, sensitivity, accuracy….etc. ii. Goals and objectives of food and nutrition surveys iii. Information needed for assessment of nutritional status b. Explain the uses and limitations of food composition databases. c. Criteria for selecting indices for use in nutritional assessment systems d. Evaluating Nutritional assessment indices	2/2nd week		A2	Exams, Quizes, Reports & assignments	Handouts.
3. Types of food and nutrition surveys: a. Cross-sectional vs. Longitudinal	1-2/2nd week		B1	Exams, Quizes,	

4. Methods for the assessment of nutritional status of individuals:
a. Dietary assessment:
   i. Methods for assessment of dietary intake of individuals
   ii. Evaluation and interpretation of dietary data
   iii. Describe and discuss the strengths and weaknesses of four methods of diet information collection for nutritional analysis of individuals or groups of people.
b. Clinical Assessment:
   i. Physical signs of malnutrition
c. Biochemical measurements
d. Nutritional anthropometry
e. Body composition
	10/3rd - 7th week		A3,A4,B1, C3, D3	Lab Assignments; Exams.	Ref. 1

5. Nutritional Assessment of Hospital Patients: a. Screening using a single index b. Multi-parameter Screening	1, 8th week		D3	Reading Assignments; Exams.	Ref. 1 and 5. Handouts

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Topic	Duration		Outcomes	Assessment	References

6. Household assessment
  a. Household size and composition
  b. Socio-economic data
  c. Relevant social and cultural data
  d. Health resources and facilities
  e. Nutrition knowledge and practices
  f. Food supply and consumption
  g. Food taboos and restrictions
	4, 8th & 9th week		A3, B1, B2		Handouts.

7. Community assessment
  a. Demographic data
  b. Socioeconomic data
  c. Relevant social and cultural data
  d. Health and medical statistics, resources and facilities
  e. Geography and environmental conditions
  f. Food supply and nutritional resources
Assessment of dietary intake at the national level: Food balance sheets
	4, 10th & 11th week		A3, B1, B2,D2		Ref.1 and Handouts.

8. A model for planning nutrition intervention program:
  - Identification and screening
  - Planning and Implementation
  - Evaluation and Monitoring
	2, 12th week.		B1, D2&D3	Term papers & assignments.	Handouts

8. Selected Topics
  - Nutrition assessment in the elderly
  - Malnutrition of hospital patients
			D1	Term papers & assignments.	Ref 4 and handouts

B. Practical part					
1. Assessment of body composition using anthropometric methods. - Assessment of growth - Calculation of % body fat 2. Demonstration of laboratory methods used in the assessment of body composition.(2 Sessions) -Dual energy X-ray absorptiometry (DEXA) 3. Assessment and interpretation of dietary intake data using a software program (ESHA Processor).	4 sessions. 5 sessions. 1-2 sessions.		C1-C3, D1-D3	Lab Assignments; homewors.	Ref. 2 & Handout.

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

ILO/s	Learning Methods
A. Knowledge and Understanding (**A1-A4**)	Lectures and Discussions
B. Intellectual Analytical and Cognitive Skills (**B1-B3**)	Lectures and Discussions
C. Subject Specific Skills (**C1-C4**)	Lectures and Applications. Group discussions and oral presentations
D.Transferable Key Skills (**D1-D3**)	Lectures and Applications. oral presentations

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:
Learning Methodology
Regular class periods will be in a lecture and discussion format. Laboratory sessions for anthropometric and dietary assessment will provide hands-on experience with basic anthropometric measurements and concepts. Students are expected to attend class and labs, complete all assignments, and to participate in discussions.
Projects and Assignments
- ❖ You will collect data throughout the term on your own nutritional status (dietary intake from a 24-h recall and 3-d record; anthropometry and body composition). Based on your analysis of the data, you will come up with reports summarizing your findings.
- ❖ Each student is to prepare a term paper. The term paper is to be on a nutritional problem of particular interest to the student. For the paper, the student should utilize reference material to discuss the following: Nature of the nutritional problem; Population groups that are affected; Prevalence; Causes and contributing factors (Scientific evidence); Recommendations for treatment and prevention and References.
- ❖ The term paper will be presented to the class as scheduled.
- ❖ Each student will be required to lead a class discussion on one paper. Students and readings will be assigned by the instructor.

Evaluation

ILO/s	
A. Knowledge and Understanding (**A1-A4**)	Exams, Quizes,
B. Intellectual Analytical and Cognitive Skills (**B1-B3**)	Reading Assignments; Exams.
C. Subject Specific Skills (**C1-C4**)	Term papers & Lab sessions and assignments.
D.Transferable Key Skills (**D1-D3**)	Oral Reports & Lab assignments.

23. Course Policies:

A- Attendance policies:

B- Absences from exams and handing in assignments on time:
Homework assignments are to be submitted at the beginning of the lecture period on the date due. Late

homework will be penalized at a rate of 10% per day late. Homework submitted after the solutions have been provided will not be accepted.

C- Health and safety procedures:

- D- Honesty policy regarding cheating, plagiarism, misbehavior:

Concerns or complaints should be expressed in the first instance to the module lecturer; if no resolution is forthcoming, then the issue should be brought to the attention of the module coordinator (for multiple sections) who will take the concerns to the module representative meeting. Thereafter, problems are dealt with by the Department Chair and if still unresolved the Dean and then ultimately the Vice President. For final complaints, there will be a committee to review grading the final exam.

- Grading policy: For more details on University regulations please visit:

  http://www.ju.edu.jo/rules/index.htm

E- Grading policy:

Exam	%	Date
1st Exam	10	
2nd Exam	30	
Assignments: Term Paper Oral Report	10 10	
Final	40	

F- Available university services that support achievement in the course:
Some homework Lab assignments will require computer software package. *E*sha Processor is provided in the department computer lab, and software package will be supported by the instructor and teaching assistant.

24. Required equipment: (Facilities, Tools, Labs, Training….)

Classrooms, Smart boards.
Anthropometric assessment tools are required for Lab sessions.

25. References:

Required book (s), assigned reading and audio-visuals:
 1. Gibson, Rosalind S. Principles of Nutritional Assessment. New York, N.Y.:
 Oxford University Press, 2005.
 2. Gibson, Rosalind S. Nutritional Assessment: A Laboratory Manual. Oxford
 University Press, 1993.

Recommended books, materials, and media:
 3. Moore, M.C. Nutritional Assessment and care.6th edition. Mosby, Inc., Elsevier Inc., 2009.
 4. Lee, R. D., and Nieman, D. C. Nutritional Assessment. 6th edition. McGraw-Hill Higher
 Education, 2013.
 5. Jelliffe, D. B., and Jelliffe, E. F. Patrice. Community Nutritional Assessment: with
 special Reference to Less Technically Developed Countries.
  New York, N. Y.: Oxford University Press, 1990.

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26. Additional information:

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Name of Course Coordinator: **Dr. Rima H Mashal** Signature: ------------------ Date: ------------

Head of curriculum committee/Department: ---------------------------- Signature: --------------------------

Head of Department: -- Signature: ----------------------

Head of curriculum committee/Faculty: --------------------------------------- Signature: --------------------

Dean: --- -Signature: ---

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