

**Kingdom of Saudi Arabia**

**The National Commission for Academic Accreditation & Assessment**

**Course Specification**

*King Saud University*

*College of Applied Medical Sciences*

*Community Health Sciences Department*

*Clinical Nutrition Program*

**Calculating Nutrients**

**CHS 266**

**1st Semester**

**1433/1434**

## Course Specification

Institution	<b>King Saud University</b>
College/Department	<b>College of Applied Medical Sciences – department of community health Sciences- Clinical nutrition program</b>

### A Course Identification and General Information

1. Course title and code: <b>(CHS 266) Calculating Nutrients</b>
2. Credit hours: <b>2 (1+1)</b>
3. Program(s) in which the course is offered. <b>Clinical Nutrition</b>
4. Name of faculty member responsible for the course: <b>Madawi Al-Dhwayan</b>
5. Level/year at which this course is offered: <b>level 5</b>
6. Pre-requisites for this course (if any) <b>CHS 214</b>
7. Co-requisites for this course (if any) <b>None</b>
8. Location if not on main campus -

### B Objectives

1. Summary of the main learning outcomes for students enrolled in the course. <b>Students enrolled in this course will be able to calculate the general requirements of energy and macronutrients.</b>
2. Briefly describe any plans for developing and improving the course that are being implemented.

### C. Course Description

The student learns methods of estimating nutrients needed in case of health and disease and this would be applied in various diseases. Also the student would be introduced to the bases behind the difference in nutrient calculation for various diseases. The course study different formulas to calculate nutrients. In the practical part of the course the student learns the modern methods to estimate dietary requirements and food exchange for individuals. Also the student will be exposed to the diet analyses software programs to learn how to use this programs in determining individual consumption of nutrients.

<b>Topics to be Covered</b>			
<b>List of Topics</b>	<b>No of Weeks</b>	<b>Date</b>	<b>Contact hours</b>
Introduction	1	1-9-2012	1
Essential Definitions & Calculations	1	8-9-2012	3
Calculating Energy Requirements (1)	1	15-9-2012	3
Calculating Energy Requirements (2)	1	22-9-2012	3
Calculating Macronutrients & Fluid Requirements	1	29-9-2012	3
Mid term 1		6-10-2012	
Meal planning & Types of diets	1	13-10-2012	3
Eid vacation	1	20-10-2010	3
Exchange list (1)		3-11-2012	
Exchange list (2)	1	10-11-2012	3
Writing SOAP note (1)	1	17-11-2012	3
Writing SOAP note (2)	1	24-11-2012	3
Mid term 2	1	1-12-2012	3
Food labels & Sweeteners & fat replacers		8-12-2-2012	
Diet analysis program	1	15-12-2012	3
<b>Revision</b>	1	22-12-2012	3

2 Course components (total contact hours per semester):				
Lecture: <b>15 hours</b>	Tutorial: <b>30 hours</b>	Laboratory <b>None</b>	Practical/Field work/Internship <b>None</b>	Other: (visiting speaker) <b>None</b>
3. Additional private study/learning hours expected for students per week. (This should be an average: for the semester not a specific requirement in each week) Not applicable				

<p>4. Development of Learning Outcomes in Domains of Learning</p> <p>For each of the domains of learning shown below indicate:</p> <ul style="list-style-type: none"> <li>• A brief summary of the knowledge or skill the course is intended to develop;</li> <li>• A description of the teaching strategies to be used in the course to develop that knowledge or skill;</li> <li>• The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.</li> </ul>
<b>a. Knowledge</b>
<p>(i) Description of the knowledge to be acquired</p> <ul style="list-style-type: none"> <li>• <b>By the end of this course, the students will be able to calculate and interpret Body Mass Index BMI, Ideal Body Weight IBW, Adjusted Body Weight Adj wt, %IBW, frame size, % wt change.</b></li> <li>• <b>By the end of the course, the students will be able to calculate energy requirement using different methods.</b></li> <li>• <b>The students will be able to design a one-day meal plan based on the daily requirement and the exchange list.</b></li> </ul>
<p>(ii) Teaching strategies to be used to develop that knowledge</p> <ul style="list-style-type: none"> <li>• <b>Lectures</b></li> <li>• <b>Group work in class</b></li> <li>• <b>Group discussion</b></li> </ul>
<p>(iii) Methods of assessment of knowledge acquired</p> <ul style="list-style-type: none"> <li>• <b>Weekly quizzes</b></li> </ul>

## **b. Cognitive Skills**

(i) Description of cognitive skills to be developed

- **By the end of the course, the students will be able to evaluate the benefits of any sweetener over the rest approved by the FDA.**
- **The students will be able to apply different methods to calculate fluid requirements.**
- **By the end of the course, the students will be able to analyze different food types based on the use of the exchange list.**
- **By the end of this course, the students will be able to read and interpret the Food labels.**
- **By the end of this course, the student will be able to recognize different types of fat replacers in food products.**

(ii) Teaching strategies to be used to develop these cognitive skills

- **Lectures**
- **Group work in class**
- **Group discussion**

(iii) Methods of assessment of students cognitive skills

- **Individual assignments**
- **Weekly quizzes**

## **c. Interpersonal Skills and Responsibility**

(i) Description of the interpersonal skills and capacity to carry responsibility to be developed

- **Not applicable**

(ii) Teaching strategies to be used to develop these skills and abilities

- **Not applicable**

(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility

- **Not applicable**

## **d. Communication, Information Technology and Numerical Skills**

(i) Description of the skills to be developed in this domain.

- **By the end of this course, the students will be able to calculate and interpret Body Mass Index BMI, Ideal Body Weight IBW, Adjusted Body Weight Adj wt, %IBW, frame size, % wt change.**
- **By the end of the course, the students will be able to calculate energy, macronutrients and fluids requirement using different methods.**

<ul style="list-style-type: none"> <li>• <b>The students will be introduced to an introduction of patient interviewing skills and nutrition history collection</b></li> <li>• <b>The students will be introduced to Diet Analysis Program Software.</b></li> <li>• <b>The students will be able to design a meal plan using the Diet analysis program</b></li> </ul>																								
(ii) Teaching strategies to be used to develop these skills <ul style="list-style-type: none"> <li>• <b>Case studies</b></li> <li>• <b>Weekly quizzes</b></li> </ul>																								
(iii) Methods of assessment of students numerical and communication skills <b>Assignments will be revised be the instructor.</b>																								
<b>e. Psychomotor Skills (if applicable)</b>																								
(i) Description of the psychomotor skills to be developed and the level of performance required <b>Not applicable</b>																								
(ii) Teaching strategies to be used to develop these skills <b>Not applicable</b>																								
(iii) Methods of assessment of students psychomotor skills <b>Not applicable</b>																								
5. Schedule of Assessment Tasks for Students During the Semester																								
<table border="1"> <thead> <tr> <th>Assessment</th> <th>Assessment task (eg. essay, test, group project, examination etc.)</th> <th>Week due</th> <th>Proportion of Final Assessment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><b>Quiz</b></td> <td><b>Every week</b></td> <td>10 marks</td> </tr> <tr> <td>2</td> <td><b>Mid term 1</b></td> <td>6-10-2012</td> <td>20 marks</td> </tr> <tr> <td>3</td> <td><b>Mid term 2</b></td> <td>1-12-2012</td> <td>20 marks</td> </tr> <tr> <td>4</td> <td><b>Energy requirement</b></td> <td>29-9-2012</td> <td>10 marks</td> </tr> <tr> <td>5</td> <td><b>Exchange list</b></td> <td>17-11-2012</td> <td></td> </tr> </tbody> </table>	Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment	1	<b>Quiz</b>	<b>Every week</b>	10 marks	2	<b>Mid term 1</b>	6-10-2012	20 marks	3	<b>Mid term 2</b>	1-12-2012	20 marks	4	<b>Energy requirement</b>	29-9-2012	10 marks	5	<b>Exchange list</b>	17-11-2012	
Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment																					
1	<b>Quiz</b>	<b>Every week</b>	10 marks																					
2	<b>Mid term 1</b>	6-10-2012	20 marks																					
3	<b>Mid term 2</b>	1-12-2012	20 marks																					
4	<b>Energy requirement</b>	29-9-2012	10 marks																					
5	<b>Exchange list</b>	17-11-2012																						

#### D. Student Support

1. Arrangements for availability of faculty for individual student consultations and academic advice. (include amount of time faculty are available each week)

**Monday 8 – 1**

**Tuesday 11- 2**

## E Learning Resources

Required Text(s) <ul style="list-style-type: none"><li>• <b>Book chapters</b></li><li>• <b>Lecture's Handouts</b></li></ul>
2. Essential References <ul style="list-style-type: none"><li>• <b>Krause's Food, Nutrition, &amp; Diet Therapy</b> by <i>L.Kathleen Mahan, Sylvia Escott-Stump</i></li><li>• <b>Understanding Normal &amp; Clinical Nutrition</b>, By, <i>Eleanor Noss Whitney</i></li><li>• <b>Applications in Medical Nutrition Therapy</b>, By <i>Frances Zeman, Denise Ney</i></li></ul>
3- Recommended Books and Reference Material (Journals, Reports, etc) <b>Use the above references</b>
4-.Electronic Materials, Web Sites etc <ul style="list-style-type: none"><li>• <a href="http://www.fda.gov">www.fda.gov</a></li><li>• <a href="http://www.eatright.org">http://www.eatright.org</a></li><li>• <a href="http://www.cfsan.fda.gov/label.html">http://www.cfsan.fda.gov/label.html</a></li><li>• <a href="http://www.fda.gov/fdac/features/2006/406_sweeteners.html">http://www.fda.gov/fdac/features/2006/406_sweeteners.html</a></li></ul>
5- Other learning material such as computer-based programs/CD, professional standards/regulations <b>Food analysis program</b>

## F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Lecture rooms, laboratories, etc.) <b>Room enough for 30 students</b>
2. Computing resources <b>A podium for displaying lectures via Power Point.</b>

## G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching <b>A course evaluation questionnaire will be distributed at the end of the course ( to evaluate the method &amp; course content.</b>
2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department <ul style="list-style-type: none"><li>• <b>The weekly quizzes given will evaluate students' comprehension of each subject.</b></li></ul>
3 Processes for Improvement of Teaching <ul style="list-style-type: none"><li>• <b>An oral evaluation will be taken after the 1<sup>st</sup> mid term exam about the quality of the course and types of questions.</b></li></ul>
4 Processes for Verifying Standards of Student Achievement <b>Not applicable.</b>
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. <ul style="list-style-type: none"><li>• <b>Final evaluation form will be collected and revised.</b></li><li>• <b>Opinions, constructive criticism will be taken into consideration and implemented in the following semester.</b></li></ul>