

***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***  
***Chronic Diseases and Nutrition***  
***CHS 343***  
***1st Semester***  
***1430/1431***

# ***Course Specification***

<b><i>Institution: King Saud University</i></b>
<b><i>College/Department: College of Applied Medical Sciences – Department of Community Health Clinical Nutrition</i></b>

## ***A Course Identification and General Information***

<b><i>1. Course title and code: Chronic Diseases and Nutrition</i></b>
<b><i>2. Credit hours: 4(3+1)hours</i></b>
<b><i>3. Program(s) in which the course is offered: Clinical Nutrition</i></b>
<b><i>4. Name of faculty member responsible for the course</i></b> <b><i>Dr. May Al Muammar.(Course Coordinator)</i></b> <b><i>Mrs. GhaliaAbdeen ,Msc.</i></b> <b><i>Mrs. May Shahwan (Assistant)</i></b>
<b><i>5. Level/year at which this course is offered: Level 7</i></b>
<b><i>6. Pre-requisites for this course (if any)</i></b>
<b><i>7. Co-requisites for this course (if any)</i></b>
<b><i>8. Location if not on main campus: King Khalid University Hospital</i></b>

## B Objectives

1. Summary of the main learning outcomes for students enrolled in the course.

**Students enrolled in this course will be able to manage some chronic diseases from nutrition point of view, through learning the disease (Definition, risk factors, biomarkers, drug nutrient interaction and the medical nutrition therapy) , assessing the patient and writing the SOAP note after analysing the in-patient files at the hospital , estimate the dietary requirements ,exchange list and a meal (or day) plan. A student will be able to search for a related topic, read a scientific paper and discuss it in class as group discussion.**

2. Briefly describe any plans for developing and improving the course that are being implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)

## C.Course Description

**In this Chronic diseases and Nutrition (CHS 343) course a student should learn how to treat/control or manage some chronic diseases such as Diabetes Mellitus, Cardiovascular Diseases, Hepatic, Gastric, Renal Diseases, Rheumatology & Bone health ,and Anaemia and nutrients deficiency from nutritional point of view. And highlight some of the risk factors such as obesity, smoking, genetics and it's relation to these diseases. He/she should also be familiar with the in-patient files at hospital and how to Wright the SOAP note well.**

Topic List	Week No.	Date of Lecture (in college)	Contact Hours	Date of Practical section (KKUH)	Contact Hours
Introduction	1 <sup>st</sup> week	6/3/1431 20/2/2010	3	6/3/1431 20/2/2010	
Obesity	2 <sup>nd</sup> week	13/3/1431 27/2/2010	3	13/3/1431 27/2/2010	4
Diabetes mellitus part 1	3 <sup>rd</sup> week	20/3/1431 6/3/2010	3	20/3/1431 6/3/2010	4
Diabetes mellitus part 2	4 <sup>th</sup> week	27/3/1431 13/3/2010	3	27/3/1431 13/3/2010	4
Cardiovascular Diseases part 1	5 <sup>th</sup> week	4/4/1431 20/3/2010	3	4/4/1431 20/3/2010	4
Cardiovascular Diseases part 2	6 <sup>th</sup> week	11/4/1431 27/3/2010	3	11/4/1431 27/3/2010	4
Midterm 1	7 <sup>th</sup> week		3		
Anemia	7 <sup>th</sup> week	18/4/1431	3	18/4/1431	4

		3/4/2010		3/4/2010	
Gastric Disease 1	8 <sup>th</sup> week	25/4/1431 10/4/2010	3	25/4/1431 10/4/2010	4
<b>Vacation</b>	<b>9<sup>th</sup> week</b>	<b>One week</b>			
Gastric Diseases 2	10 <sup>th</sup> week	10/5/1431 24/4/2010	3	10/5/1431 24/4/2010	4
Hepatic Disease	11 <sup>th</sup> week	17/5/1431 1/5/2010	3	17/5/1431 1/5/2010	4
Renal Diseases part 1	12 <sup>th</sup> week	24/5/1431 8/5/2010	3	24/5/1431 8/5/2010	4
Renal Diseases part 2	13 <sup>th</sup> week	1/6/1431 15/5/2010	3	1/6/1431 15/5/2010	4
Midterm 2	14 <sup>th</sup> week	8/6/1431 22/5/2010	3	8/6/1431 22/5/2010	4
Rheumatology & Bone health	15 <sup>th</sup> week	15/6/1431 29/5/2010	3	15/6/1431 29/5/2010	4
Practical exam	16 <sup>th</sup> week	22/6/1431 5/6/2010	3	22/6/1431 5/6/2010	
Final exams	17 <sup>th</sup> week	According to the academic calendar		-----	

<b>2. Course components (total contact hours per semester):</b>			
Lecture:	Tutorial:	Practical/Fieldwork/Internship:	Other:
<b>36</b>		<b>48</b>	<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)**

**4. Development of Learning Outcomes in Domains of Learning**

For each of the domains of learning shown below indicate:

- A brief summary of the knowledge or skill the course is intended to develop;
- A description of the teaching strategies to be used in the course to develop that knowledge or skill;
- The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.

<b>a. Knowledge</b>	
(i) Description of the knowledge to be acquired	<ul style="list-style-type: none"> <li>• <b>By the end of the course, the students will be able to define the risk factors, biomarkers and the medical nutrition therapy, and it's relation to chronic diseases.</b></li> <li>• <b>By the end of the course, the students will be able to Asses the patient and write the SOAP note.</b></li> <li>• <b>By the end of the course, the students will be able to design a one-day meal plan based on the daily requirement and the exchange list for patients with chronic diseases (a control diet).</b></li> <li>• <b>By the end of the course, the students will be familiar with the in-patient files at hospital and how to take a subjective note from the patient.</b></li> <li>• <b>By the end of the course, the students will be to search for a related topic ,read a scientific paper and discuss it in groups.</b></li> </ul>
(ii) Teaching strategies to be used to develop that knowledge	<ul style="list-style-type: none"> <li>• <b>Lectures.</b></li> <li>• <b>Group work in Hospital (KKUH).</b></li> <li>• <b>Group discussion</b></li> </ul>
(iii) Methods of assessment of knowledge acquired	<ul style="list-style-type: none"> <li>• <b>Weekly quizzes.</b></li> <li>• <b>Weekly assignment.</b></li> </ul>
<b>b. Cognitive Skills</b>	
(i) Cognitive skills to be developed	<p><b>By the end of the course, the students will be able to distinguish the preventive measures for some related risk factors. -1</b></p> <p><b>By the end of the course, the students will be able to distinguish different medical nutrition therapies in relation to different chronic diseases. -2</b></p> <p><b>By the end of the course, the students will be able to distinguish different blood biomarkers ,and medications in relation to different chronic diseases and nutritional status. -3</b></p> <p><b>By the end of the course, the students will be able to read and interpret the in- -4</b></p>

<p style="text-align: right;"><i>patient files at the hospital.</i></p> <p><i>By the end of the course, the students will be able to distribute the macronutrients and micronutrients according to each disease and its recommendations.</i> -5</p> <p><i>By the end of the course, the students will be able to analyze different food types based on the use of the exchange list in relation to the chronic disease and its recommendations.</i> -6</p> <p><i>By the end of the course, the students will be able to use the insulin distribution in planning a diet for Diabetics</i> -7</p> <p><i>By the end of the course, the students will be able to use the carbohydrates count methods</i> -8</p>
<p><i>(ii) Teaching strategies to be used to develop these cognitive skills</i></p> <ul style="list-style-type: none"> <li>• <b>Lectures.</b></li> <li>• <b>Group work in the Hospital (KKUH).</b></li> <li>• <b>Group discussion.</b></li> </ul>
<p><i>(iii) Methods of assessment of students cognitive skills</i></p> <ul style="list-style-type: none"> <li>• <b>Weekly quizzes.</b></li> <li>• <b>Weekly assignment.</b></li> </ul>
<p><b><i>c. Interpersonal Skills and Responsibility</i></b></p>
<p><i>(i) Description of the interpersonal skills and capacity to carry responsibility to be developed</i></p> <p><b><i>By the end of the course ,the student will be trained to respect the hospital atmosphere , privacy ,culture and medical condition of the patient.</i></b></p>
<p><i>(ii) Teaching strategies to be used to develop these skills and abilities</i></p> <p><b><i>By highlighting and practising these measures on weekly bases when visiting the wards at the hospital.</i></b></p>
<p><i>(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility</i></p> <p><b><i>Weekly visits to the hospital wards.</i></b></p>

<b>d. Communication, Information Technology and Numerical Skills</b>	
(i)	<i>Description of the skills to be developed in this domain.</i>  <b>1-By the end of the course, the students will be able to communicate with in-patients. 2-By the end of the course, the students will be able to interpret in-patients file. 3-By the end of the course, the students will be able to write SOAP note. 4-By the end of the course, the students will be able to assess the patient, calculate energy, macronutrients, and micronutrients requirements for patients, with relation to each disease. 5-By the end of the course, the students will be able to estimate the exchange list and design a suitable meal (day) plan.</b>
(ii)	<i>Teaching strategies to be used to develop these skills</i> <b>weekly assignments (cases to solve)</b>
(ii)	<i>Methods of assessment of students numerical and communication skills</i> <b>Weekly discussion hours.</b>
<b>e. Psychomotor Skills (if applicable)</b>	
(i)	<i>Description of the psychomotor skills to be developed and the level of performance required</i>  <b>Under the Extra readings; By the end of the course, the students will be able to search for a related topic (a new topic from the medical nutrition therapy with relation to a chronic disease or its risk factors) in a scientific paper and discuss it in class.</b>
(ii)	<i>Teaching strategies to be used to develop these skills</i> <b>Group Discussion</b>
(iii)	<i>Methods of assessment of students psychomotor skills</i> <b>One to one and group discussion in class</b>

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<b>5. Schedule of Assessment Tasks for Students During the Semester</b>			
<i>Assessment</i>	<i>Assessment task (eg. essay, test, group project, examination etc.)</i>	<i>Week due</i>	<i>Proportion of Final Assessment</i>
<b>1</b>	<b>Assignment and discussion + Quis</b>	<b>Every week</b>	10%
<b>2</b>	<b>Midterm 1</b>	18/4/1431 3/4/2010	20%
<b>3</b>	<b>Midterm 2</b>	8/6/1431 22/5/2010	20%
<b>4</b>	<b>Practical exam (open book)</b>	-----	10%
<b>5</b>	<b>Final exam</b>	-----	40%

#### **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)

**Tuesday (10:00-12:00 pm)**  
**Wednesday (8:00 -10:00 am)**

#### **E. Learning Resources**

<p>1. Required Text(s)</p> <ul style="list-style-type: none"> <li>• <b>Book chapters.</b></li> <li>• <b>Lecture's Handouts.</b></li> </ul>
<p>2. Essential References</p> <p><b>Krause's Food, Nutrition, &amp; Diet Therapy</b> by L.Kathleen Mahan, Sylvia Escott-Stump. <b>-1</b>  <b>ADA (American Dietetic Association Manual) ; 6<sup>th</sup> edition -2</b></p> <p><b>3-Oxford Handbook Of NUTRITION AND DIETETICS</b> .Edited by Joan Webster-Gandy, Angela Madden and Michelle Holdsworth.</p> <p><b>4-Manual of Nutrition Therapeutics</b>.fourthedition.DavidH.Alpers,WilliamF.Stenson,Dennis M. Bier.</p>
<p>3- Recommended Books and Reference Material (Journals, Reports, etc)</p> <p><b>Use the above references.</b></p>
<p>4-.Electronic Materials, Web Sites etc</p> <ul style="list-style-type: none"> <li>• <b><u><a href="http://www.fda.gov">www.fda.gov</a></u></b></li> <li>• <b><u><a href="http://www.diabetes.org">www.diabetes.org</a></u></b></li> </ul>

<ul style="list-style-type: none"> <li>• <a href="http://www.eatright.org">www.eatright.org</a></li> </ul>
<p>5- Other learning material such as computer-based programs/CD, professional standards/regulations</p> <p><b>Not applicable.</b></p>

### **F. Facilities Required**

<p>Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.)</p>
<p>1. Accommodation (Lecture rooms, laboratories, etc.) <b>Classroom enough for 29 students.</b></p>
<p>2. Computing resources <b>A podium for displaying lectures via Power Point.</b></p>

### **G. Course Evaluation and Improvement Processes**

<p>1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching</p> <p><b>A course evaluation questionnaire will be distributed at the end of the course ( to evaluate the method &amp; course content.</b></p>
<p>2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department</p> <p><b>The weekly quizzes and weekly assignment given will evaluate students' comprehension of each subject.</b></p>
<p>3 Processes for Improvement of Teaching</p> <p><b>An oral evaluation will be taken after the 1<sup>st</sup> midterm exam about the quality of the course and types of questions.</b></p>
<p>4. Processes for Verifying Standards of Student Achievement (eg. check marking by an independent faculty member of a sample of student work, periodic exchange and remarking of a sample of assignments with a faculty member in another institution)</p> <p><b>Not Applicable</b></p>
<p>5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.</p> <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</b></li> </ul>

*implemented in the following semester.*