

Vision, mission and goals of Clinical Nutrition program

Vision:

Leadership and excellence in the field of clinical nutrition.

Mission:

Graduating qualified clinical nutrition specialists provided with sufficient knowledge and skills and armed with values required for professional practices and leadership in the field of clinical nutrition that meet the aspirations of the community at the national and international levels.

Goals

- Providing the students with outstanding educational experiences in the field of clinical nutrition according to international standards that develop their professional practices.
- Building the students' competencies of critical thinking, problem solving and effective communication that help them dealing with various nutritional problems in collaboration with the health care team and other nutrition- related sectors.
- Integrating community service activities into the program to adopt healthy nutrition attitudes and behaviors and instill values of compassion, loyalty and belonging among students.
- Fostering the principles of life-long learning to empower students' professional self-development, and encourage their participation in conferences, workshops and clinical nutrition related scientific research activities.

Timetable

Syllabus
CHS 344 – 30260-61

Metabolic Integration and Disorders
2 hours (1 theoretical + 1 practical) / Level 6
1st Semester of the Academic Year 1438-1439

Instructor: Khalid Aldubayan, PhD
Phone: (011) 469-3693
Email: kaldubayan@ksu.edu.sa
Office: 2266
Office Hours: Monday, 11:00 AM – 12:50 PM or by appointment
Class Hours: Lecture: Monday, 01:00 PM – 01:50 PM at A 028
Practical: Sunday, 01:00 PM – 01:50 PM at A 022
Announcements: Please check regularly the following:
The instructor KSU's website: <http://fac.ksu.edu.sa/kaldubayan>
Blackboard: <https://lms.ksu.edu.sa/>
Students KSU's email: <http://ksu.edu.sa/ar/students>

Course Description

Metabolic disorders, carbohydrate metabolism disorders, lipid metabolism disorders, and protein metabolism disorders.

Course Purpose

The purpose of this course is to help undergraduate students understand the biochemical basis of metabolic disorders involving the disorders due to carbohydrate, lipid, and protein metabolisms and their treatments.

Students Learning Outcomes and Objectives

- Recognize and describe the biochemical basis of various metabolic disorders
- Recognize and describe carbohydrate, lipid, and protein metabolism disorders and their clinical manifestation and treatment
- Identify and explain how to nutritionally manage various metabolic disorders

Readings

Required readings

- **Saudubray, JM., Van den Berghe, G., and Walter J.** (2012). *Inborn metabolic disease: diagnosis and treatment*. 5th ed. Springer Pub.

Essential readings

- **Gopalan, C., Krishnaswamy, K.** (2003). *Nutrition in major metabolic diseases*. Oxford Pub.

- **Escott-Stump, S.** (2015). *Nutrition and Diagnosis-related Care*. 8th ed. Wolters Kluwer.

Recommended readings

- Metabolic Syndrome and Related Disorders. Available at <http://www.liebertpub.com/default.aspx>
- Journal of Inherited Metabolic Disease. Available at <http://www.springer.com/medicine/internal/journal/10545>
- Journal of Diabetes and Metabolic Disorders. Available at <http://jdmdonline.biomedcentral.com/>
- Molecular Genetics and Metabolism. Available at <http://www.journals.elsevier.com/molecular-genetics-and-metabolism/>

Topics to be covered

List of topics	Week due	Contact hours
Introduction and objectives of the course	1 st	3
Major categories, manifestations and presentations of inborn errors of metabolism	2 nd	3
Disorders of carbohydrate metabolism and their nutritional management	3 rd – 5 th	9
Metabolic disorders of urea cycle and their nutritional management	6 th - 8 th	9
Disorders of protein and amino acids and their nutritional management	9 th - 12 th	12
Disorders of fatty acid metabolism and their nutritional management	13 th , 15 th	9

Schedule of Assessment Tasks for Students During the Semester

Assessment task	Week due	Proportion of Final Assessment
Midterm I	5 th - 7 th week	15 %
Midterm II	10 th - 12 th week	15 %
Class discussion and participation	1 st - 14 th week	5 %
Assignment and Presentation	4 th - 14 th week	15 %
Practical Exam	15 th week	10%
End Semester Exam	16 th - 18 th week	40 %

المادة الثامنة والعشرون :

تحتسب التقديرات التي يحصل عليها الطالب في كل مقرر كما يلي :

الدرجة المنوية	التقدير	رمز التقدير	وزن التقدير من (5)	وزن التقدير من (4)
100-95	ممتاز مرتفع	أ+	5.00	4.00
90 إلى أقل من 95	ممتاز	أ	4.75	3.75
85 إلى أقل من 90	جيد جداً مرتفع	ب +	4.50	3.50
80 إلى أقل من 85	جيد جداً	ب	4.00	3.00
75 إلى أقل من 80	جيد مرتفع	ج +	3.50	2.50
70 إلى أقل من 75	جيد	ج	3.00	2.00
65 إلى أقل من 70	مقبول مرتفع	د +	2.50	1.50
60 إلى أقل من 65	مقبول	د	2.00	1.00
أقل من 60	راسب	هـ	1.00	0

(Source: http://dar.ksu.edu.sa/sites/dar.ksu.edu.sa/files/imce_images/majlis4c.pdf)

Final & Midterm Exams

The exams will consist of true and false, multiple choice, and short answer questions.

Practical Exam

The exam will consist of cases and the students will be asked to describe a dietary management for these cases.

Peer Review (3%)

All students will be assigned to review their peers who will present, therefore, attending all students' presentations is essential.

Assignments

Report (7%)

Students will be assigned to write a report (2-3 pages) regarding:

- The national newborn screening program, which is under the supervision of the Saudi Ministry of Health (<http://www.moh.gov.sa/endepts/Non-Communicable/Depts/NNSP/Pages/default.aspx>)

OR

- The Saudi Society of Medical Genetics (<http://www.ssmg.org.sa/>)

The report should be double-spaced with 12 font size and Times New Roman's font. The report is due at week 5.

Presentation (8%)

Students are required to choose an article of their choice about nutrition metabolic disorders and present an overview about it. All articles should be submitted to the instructor on or before week 5 (2%). The presentation's due date starts at week 6 until week 11. The presentation should be within 10 to 15 minutes.

Students	Topic	Presentation Week
435103274; 435106146	Will be picked by students	Week 6
434107337; 435106849	Will be picked by students	Week 7
435107389; 435100742	Will be picked by students	Week 8
434106085; 433100740	Will be picked by students	Week 9
435100481; 435106671	Will be picked by students	Week 10

Course Policies

Extra Credit

There will be no extra credit assignments in this course.

Attendance

Students are expected to attend all lectures. Should a situation occur where there is absence, the instructor needs to be notified prior to absence. Unexcused absence will mean a deduction from

the 2% proportion for attendance credit. According to the KSU law, if the student exceeds a 25% unexcused absence, he will be exempted from the course and attending the final exam. Please refer to: (http://dar.ksu.edu.sa/sites/dar.ksu.edu.sa/files/imce_images/majlis4c.pdf).

Cheating and plagiarism

There is no tolerance to all forms of cheating. It is expected that all students put their efforts forward when performing in tests, assignments and any other course requirements.

It is expected that students produce original papers and assignments, and when referring to other sources (where they use as support to their original thoughts/theories) that they appropriately cite and provide a bibliography/reference for all information and citing from other sources.

If the instructor sees any form of cheating and/or plagiarism, he has the right to take any required action according to the Dean of Student Affairs Rules of Student Discipline. Please refer to: (https://sa.ksu.edu.sa/sites/sa.ksu.edu.sa/files/attach/lyh_tdyb_ltlb_ljdyd0001.pdf) & (https://sa.ksu.edu.sa/sites/sa.ksu.edu.sa/files/attach/wthyq_hqwq_wltzmt_ltlb_ljmy.pdf).

Problems associated with the course and/or instructor

When a problem with the course/instructor occurs, the students should follow the order of approaching their problem in order to preserve their rights professionally. First, discuss the matter with the instructor. If you feel that the problem remains unresolved, you can discuss the matter with the head department. If the problem still remains unresolved, you can refer to the Associate Dean of Academic Affairs. If the problem you have is still not resolved after all the aforementioned processes, you have the right to refer to the Unit of Student Rights. Please refer to: (https://sa.ksu.edu.sa/sites/sa.ksu.edu.sa/files/attach/lqwd_lmnzm_lwhd_hmy_lhqwg_ltlby_0.pdf).