

Chaminade University of Honolulu

Division of Natural Sciences and Mathematics

Course Syllabus

BI 304

Clinical Nutrition
Fall 2016

Course: BI 304 Clinical Nutrition

Location: Hale Hoaloha Room 103 Tuesday & Thursday 4:30-5:50 p.m.

Credits: 3 (Lecture Only Course)

Instructor: Sharon Omizo, M.Ed., R.D., L.D.

Office: Wesselkamper Science Center

Phone: (808) 440-4204 (Natural Science & Mathematics
Division phone number)

E-mail: sharon.omizo@chaminade.edu

Office hours: By appointment

Catalog Description:

This course introduces the study of nutrients and their respective function, food sources, and physiological needs. Dietary guidance and nutritional requirements throughout the lifespan are explored. Also included is the role that nutrition plays in the prevention of, and intervention in, chronic disease. The content of this course is organized around basic human needs, physiology, population trends, and cultural patterns. Students will have the opportunity to analyze their personal dietary habits and identify dietary deficiencies and/or excesses. The dietary analysis module will be formatted to empower individuals toward positive dietary/lifestyle changes, and to help the students learn the role of food and nutrition in the application of therapeutic diets.

This course satisfies the nutrition requirement of students entering the health care professions and is required of all Chaminade University nursing majors.

Prerequisites: BI 151/15 J L, BI 152/152L, CH 201/201 L, CH 254/254L, NUR 202, NUR 203

Course Learning Outcomes: Upon successful completion of this course, the student will demonstrate the ability to:

1. Understand the role that ethnicity, culture, family and peers play in our food choices,
2. Analyze the function and purpose of every class of nutrients and the particular nutritional benefit of each,
3. Explain bioavailability as it relates to food sources and nutrient-nutrient interactions, and identify symptoms associated with nutrient toxicities and deficiencies,
4. Explain the impact of nutrition and lifestyle choices on health throughout the lifecycle, with attention to the use of diet therapy for prevention of disease, as well as for treatment of those individuals in a diseased state,
5. Explain the need for nutrient supplementation as based upon lifestyle and life cycle phase, with attention to pregnancy, infancy, childhood and the elderly,
6. Identify the effects of selected drugs on the utilization of nutrients, as well as the effects that nutrients have on some drugs and food-drug incompatibilities,
7. Describe factors involved in metabolism and weight control, including methods of assessing body weight, and body composition, as well as causes of obesity and eating disorders, and
8. Perform a comprehensive nutritional assessment using appropriate techniques and equipment such as: diagnostic tests (radiologic/laboratory data), anthropometric measurements, dietary history and recalls, and physical findings and sociological data.

Linkages between BI 304 Course Learning Outcomes (CLOs) and Biology Program Learning Outcomes (PLOs): Outcomes Biology Grid:

I= Introduced to the concept/skill ; D= Developing ;M=Mastered

Students completing a course of study in Biology will demonstrate:

PLO Program Learning	CLO1	CL02	CL03	CL04	CLOS	CL06	CL07	CLOS
Biology PLO # 1: An understanding of the scientific method and the ability to design and test a hypothesis.								
Biology PLO #2: The ability to visualize, statistically evaluate, validate and interpret scientific data, and to communicate science effectively both orally and in writing.								I
Biology PLO # 3: The ability to acquire and comprehend information from published scientific literature and to employ computational resources in the resolution of biological problems.								
Biology PLO #4: An understanding of the chemical and physical principles that unite all life forms, and of biological organization at the molecular, cellular, tissue, organ, organism and systems levels.		1/D	I		I	I	I	
Biology PLO #5: The ability to define the components and processes of genetic and epigenetic information transmission, and their determinant effects on the adaptive and evolutionary processes that they drive.								
Biology PLO #6: An understanding of the etiology of major human disease burdens in terms of pathophysiological mechanisms, epidemiology within populations, and possible therapeutic approaches.	I			1/D	1/D	I		
Biology PLO #7: An understanding of the entry requirements, career pathways and progression for the major post-graduate fields of research, education and the health professions.								I

COURSE REQUIREMENTS/METHOD OF EVALUTION:

Your grade in this course will be based on the following:

Examinations 4 (40 points each)	160
Quizzes - 3 (10 points each)	30
ATI (30 points)	30
Service Learning (30 points)	30
TOTAL	250

Grading Scale:

A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 - 69%

F = less than 60%

Assignments / Assessment:

Note: All assignments are due at the beginning of class on the specified date. Due dates not indicated on the course schedule will be announced in class. It is the policy of the Biology Department that any late assignments will be docked one letter grade for submissions received up to 24 hours late. Assignments received after the 24-hour grace period will receive a 'zero' for that assignment. Assignments may be accepted in advance of the due date.

Examinations:

There will be 4 course examinations - approximately after the completion of each section (subject to change).

ATI will be scheduled.

Points for ATI: 3 = 30 points

2 = 20 points

1 = 10 points

Less than 1 = remediation and retake for 10 points

Service-Learning: 30 points Due: November 22, 2016(Tuesday), (week 14)

Service-learning will increase your understanding of the health/nutrition challenges of the different populations within a community, the importance of nutrition/nutrition education, and the role of the nurse as an educator in the community. **Each student will engage in 10 hours of service with one of the chosen sites specific to this course and complete a paper describing their experience by the end of week 14.**

Focus on understanding the connection between what you learn in class and the service experience. Before, during, and after your service, think about the following questions:

- *What was the purpose of your service? (problems/issues addressed? mission/intent?)*
- *How did your service relate to the content of your class? What did you learn about the importance of nutrition/nutrition education, and the role of nurses in this area? What did you learn about culturally appropriate/accessible ways of talking about nutrition? What did you learn about the role of culture in food choices?*

_ Did you encounter any challenges or difficulties? If so, how can this teach you about health and healthcare challenges and issues for at-risk communities? You might find it helpful to refer to Maslow's "hierarchy of needs" and to the poverty cycle and its effects.

Respond to the questions above in your reflection paper. At the end of your paper, summarize its content on one powerpoint slide. Submit all work (reflection paper, slide, & community deliverables, such as articles, posters, recipes, etc...) to your instructor and the Service-Learning Director, Candice Sakuda: service.learning.cuh@gmail.com

In class, you will register & indicate your first and second choices for your service-learning project. Be sure to check your schedule along with the projects' schedules, to make the appropriate commitments. Detailed information about your choices will be posted here, beginning week 1 of class:

http://www.chaminade.edu/u/service_learning/BI0304Project.php

This project is worth 30 points.

Information/sign up will be during the second week of class

Instructor availability:

The instructor will be available by email or by appointment.

sharon.omizo@chaminade.edu

Phone number: 440-4204 (main Natural Science and Mathematics Division number)

The instructor will be available 30 minutes before and after class as needed.

Integration of Critical Skills:

The following critical skills are incorporated into the course content: reading, writing, critical analysis, speaking/listening, and working within a multi-cultural environment.

Text:

Stanfield, P. & Hui, Y. H. (2010). *Nutrition and diet therapy: Self-instructional approaches*. (5th Edition) Sudbury, MA: Jones and Bartlett Publishers.
ATI Nutrition for Nursing 5th Edition

Policies:

Policy on Late Papers

Late papers will receive a zero. In case of an emergency, the instructor reserves the right to make exceptions.

Policy on Technology, Cell Phones, and Music Devices

Laptops may be used for note-taking purposes only. Other uses are distracting and disrespectful to the rest of the class and the instructor and will not be tolerated. The use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. The use of cell phones and music devices in any class is discourteous and may lead to suspicion of academic misconduct. Students who cannot comply with this rule will be asked to leave class and may be subject to laboratory safety violation fines. Please refer any questions to the Dean of Natural Sciences and Mathematics.

Policy on ADA Accommodations

Regarding accommodations for extra time or other requests about how exams are administered, please be aware that the instructor can only accommodate your requests if you have a documented ADA agreement with Chaminade University on file at the Counseling Center. If you need to seek such accommodations, please contact Dr. June Yasuhara at 725-4845 or by e-mail at jyasuhar@chaminade.edu as soon as possible.

Title IX Declaration

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly.

As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. Should you want to speak to a confidential source you may contact the following:

- Chaminade Counseling Center: 808-735-4845.
- Any priest serving as a sacramental confessor or any ordained religious leader serving in the sacred confidence role.

Academic Honesty

Students are expected to have read and to abide by the "Student Rules of Conduct" which are available in your copy of Chaminade University's Student Handbook. Cheating in the form of plagiarism, collusion, and deception will not be tolerated and will negatively affect your grade.

Attendance & Tardiness

Students are expected to attend regularly all courses for which they are registered. Students should notify their instructors promptly when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address or by leaving a phone message with the instructor's division office (Natural Science and Math (808) 440-4204). It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially **withdrawing** may receive a failing grade.

Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being **withdrawn** from the course by the instructor, although the instructor is not required to **withdraw** students in that scenario. Repeated absences put students at risk of failing grades.

Course Content:**Part 1. Nutrition Basics and Applications/Principles of Nutrition**

1. Introduction to Nutrition/Guidelines for Healthy Eating
2. Watch Your Weight/Portion Distortion
3. Food Habits and Culture
4. The Six Essential Nutrients
 - a. Water
 - b. Carbohydrates
 - c. Lipids
 - d. Proteins
 - e. Vitamins
 - f. Minerals

Part 2. Energy Needs and Metabolism

5. Ingestion, Digestion, Absorption, and Metabolism
6. Nutrition Assessment
7. Food Safety
8. Dietary Supplements and Food & Drug Interactions
9. Nutrition Across the Lifespan
 - Pregnancy and Lactation
 - Infancy
 - Childhood
 - Adolescence
 - Adult and Older Adult

Part 3. Clinical Nutrition

10. Modified Diets, Medical Nutrition Therapy
11. Barriers to Adequate Nutrition
12. MNT for Surgical Conditions
13. Enteral Nutrition
14. Total Parenteral Nutrition

Part 4. Alterations in Nutrition

15. Diet Therapy for the following Conditions
 - a. Cardiovascular Disease
 - b. GI Disorders
 - c. Liver, Gallbladder, Pancreas
 - d. Renal
 - e. Diabetes
 - f. Oncology, HIV
- A. Principles of Feeding a Sick Child
- B. Diet Therapy for the following Childhood Conditions
 - a. Cystic Fibrosis
 - b. Celiac Disease
 - c. Congenital Heart Disease
 - d. Food Allergies
 - e. Phenylketonuria
 - f. Constipation and diarrhea

Course Schedule:(Subject to change)

Please come to class having completed the assigned reading and prepared to contribute to class. Chapters from Nutrition and Diet Therapy (NDT) and ATI book will be reviewed and discussed.

Week-	Topic	Assignment
Week 1 8/23, 8/25	Intro to Course, Intro to Nutrition	Reading: Chapter 1 NDT ATI Chapter 4
Week 2 8/30, 9/1	Food Habits Cultural, Ethnic und Religious Influences Service Learning Project	Reading: Chapter 2 NDT, ATI Chapter 6
Week 3 9/6, 9/8	Protein Carbohydrates and Lipids; Implications for Health	Reading: Chapter 3 and 4 NDT, ATI Chapter 1
Week 4 9/13, 9/15	Vitamins and Health Minerals.	Reading: Chapter 5 and 6 NDT, ATI Chapter 1
Week 5 9/20, 9/22	Test I on 9/20 Ingestion, Digestion, Absorption and Metabolism	Reading: Chapter 7 NDT, ATI Chapter 2
Week 6 9/27, 9/29	Nutrition Assessment 9/29 class TBA	Reading : Chapter 8 NDT, ATI Chapter 3
Week 7 10/4, 10/6	Food Safety Drugs and Nutrition Dietary Supplements	ATI Chapter 5, Reading: Chapters 10, 11 NDT
Week 8 10/11, 10/13	Nutrition Across the Lifespan	Chapter 9 NDT, ATI Chapter 7
Week 9 10/18, 10/20	Test 2 on 10/18 (Tues) Modified Diets Barriers to Adequate	Chapter 14 NDT, ATI Chapter 8, ATI Chapter 11
Week 10 10/25, 10/27	MNT for Surgical Conditions Enteral and Parenteral Nutrition	Chapter 15 NDT, ATI Chapter 9, 10
Week 11 11/1, 11/3	Cardiovascular and Hematologic GI Disorders Test 3 (11/3 - Thurs)	ATI Chapter 12, Chapter 17 NDT, ATI Chapter 13
Week 12 11/8, 11/10	Diet Therapy for Liver, Gallbladder, Pancreas Renal Disease	Reading: Chapters 19 NDT ATI Chapter 13 ATI Chapter 14
Week 13 11/15, 11/17	Diabetes Oncology, HIV	ATI Chapter 15, ATI Chapter 16
Week 14 11/22, 11/24	ATI Exam (11/22) Service Learning Project Due 11/22 Thanksgiving(11/24) - No Class	Reading: TBA
Week 15 11/29, 12/1	Childhood Nutrition	Reading: Chapters 23-28 NDT
Week 16 12/6	FINAL Examination December 6, 2016 (Tuesday)	

