

GEORGE MASON UNIVERSITY
College of Health and Human Services
Department of Global and Community Health

Course number: GCH 423 -002

Course Title: Nutrition and Chronic Illnesses

Course Placement: Requirement for Nutrition Certificate or Elective in other Program(s)

Faculty: Anna Kaniathra MS RD
Phone: 703- 246-8657
Email: anna.kaniathra@fairfaxcounty.gov or jnakan@yahoo.com

Office Hours: by appointment or telephone

Class Schedule: Mondays 1:30-4:10 PM
Engineering Building
Room 1108

Course Description: This course will examine the nutrient needs related to specific chronic illnesses including cardiovascular disease, cancer, obesity, diabetes and others. It will focus on the principles of nutritional therapy and prevention.

Course Objectives:

Upon completion of this course, students will be able to:

- Describe the nutrient needs regarding specific chronic illnesses covered.
- Examine the role that nutrition has in prevention of these diseases.
- Review current nutrition research and recommendations specific to nutritionally related chronic diseases.

Required Textbook: Understanding Normal and Clinical Nutrition 8th Edition
Rolfes, Pinna and Whitney, 2008
Wadsworth Publishing

- **Recommended Resource:** Diet Analysis Plus 7.0 for Windows,
<http://www.ars.usda.gov/Services/docs.htm?docid=5720> or
http://www.ars.usda.gov/main/site_main.htm?modecode=12354500

Course Requirements: GCH 295 or permission of instructor

Course Evaluation Methods:

1. Nutritional assessment project and presentation of findings (100 points)
2. 2 in-class exams (200 points)
3. 3 take-home quizzes (60 points)
4. 2 internet assignments (40 Points)
5. Community Project Report (100)

Course Point Distribution:

There are a total of 500 points in this class (not including the extra credit points). Please see the following table for the number of points given to each grade:

Grade	Points
A	475-500
A-	450-474
B+	435-449
B	415-434
B-	400-414
C+	385-399
C	365-384
C-	350-364
D	325-349
F	<325

Rationale: To provide a requirement for the nutrition certificate program, nutrition minor, and as an elective for health science and nursing students.

Teaching Strategies: Lecture/discussion, Guest lecturers, Video presentations, Audio/ Visual aids, Student presentations, Case study analyses

Topical Outline:

1. Review of Nutrition Concepts
2. What is good nutrition science?
3. Anemia
4. Antioxidants/Phytochemicals and disease prevention
5. Illness and Nutrition Status
6. Hunger and malnutrition
7. Nutrition Assessment
8. Obesity

9. Diabetes Mellitus
10. Disorders of Heart
11. Eating Disorders
12. Lower GI Tract Disorders
13. Osteoporosis
14. Renal Diseases/ Liver Disorders and Alcoholism
15. Cancer
16. HIV

Assignments:

I. Nutritional Assessment and Presentation of Findings (100 points). Paper due November 23th (Turn in copy of paper) and Presentation due November 23/December 7 th.

For this assignment, interview a person in your community (a patient, friend, relative, etc.) who suffers from a chronic illness. Let them know that this interview is confidential! The purpose of this interview is to:

- get a general idea regarding their risk for poor nutritional status
- Determine what kind of nutritional support they might receive, if any.

You will make some suggestions on how that support might (need to) be improved. Nutrition support includes:

1. Individuals who might counsel or educate others about their diet.
2. People involved in preparing or purchasing food.
3. a person (persons) who is responsible for monitoring and assessing an individual's nutritional status and diet.

The interview should be about an hour. During the interview, gather the following information. *(See handout to guide you for this activity- will be available later on in semester)*

- Gather general information about the overall health history of the individual.
- Collect weight, height, and BMI data. If possible, do skinfold analysis.
- Conduct a 24-hour dietary recall to determine the person's dietary intake. Remember to ask everything that this person has consumed. Ask for the brand names, the preparation method, and the amount. Try to be as specific as possible to gather a more accurate picture of the person's diet. Remember the lessons learned doing your own assessment. Then, analyze this data with the Diet Analysis Plus, or the Food Processor programs or go to the USDA sites listed on front page of this syllabus.
- Go over the "**Checklist to determine nutritional health**" (to be provided). Calculate this individual's total nutritional score.
- Look at the "Nutrition Assessment Checklist" found at the **end of each chapter** in your text. Try to gather as much information concerning this checklist as you can.
- Ask the patient if there are any people involved in assessing and monitoring their nutritional status. If so, who does this and how often? What are their credentials?

- Ask the patient if anyone is made available to him/her regarding how to plan and prepare a nutritious diet. If so, who does this and how often? What are their credentials?
- Ask the patient if anyone talks to them, in general, about nutrition and why it is important. How often? What are the credentials of this individual?
- Does the patient want more nutritional support? If so, what kind?

After completing the interview, write-up a REPORT (total pages including questions 2-6 listed below will be 3 pages, 12 point font, 1 inch margins) that summarizes what went on in the interview. You will also summarize what you have found and *present it to the class*. Remember to include the following:

1. A copy of the checklists and the analysis from the 24-hour dietary recall.
2. Give a brief synopsis of the kind of chronic condition this individual suffers and their health history.
3. From the checklists, anthropometric data, and 24-hour dietary recall, does this person have any nutritional risk? How? Be specific.
4. Summarize the questions and responses that occurred during the interview.
5. Develop at least 2 recommendations or suggestions on how this individual might improve their diet or reduce their risk for poor nutritional status.
6. Develop at least 2 recommendations or suggestion regarding how this individual's nutrition support might be improved.

The paper and the presentation are worth a total of 100 points (the presentation is 20% of the grade). Make a copy of the write up and turn it in on **November 23rd**. Keep the other copy so you can present your findings to the class either **November 23rd or December 7th**.

2. Two in-class exams (total =200 points)

There are 2 in-class multiple-choice exams in this class. One during the midterm and the other during the final exam period. Each exam is worth 100 points.

Exam 1 is on October 26th

Exam 2 is on December 14th 1:30-4:15PM (Final Exam)

3. Two Take-home quizzes (total =60 points)

There are 2 take-home quizzes in the class. Each quiz will be due a week before each exam. The quizzes will consist of multiple choice, fill in the blank, and short answer questions. Each quiz is worth 30 points.

Quiz 1 is due on October 19th.

Quiz 2 is due on December 7th.

4. Two Internet assignments (40 points)

Each is worth 20 points. The assignments and due dates are given below and in the schedule at the end of the syllabus.

YOU MUST TURN IN THE TWO INTERNET ASSIGNMENTS ON THE RESPECTIVE DATES LISTED. FOR EXAMPLE, ASSIGNMENT 1 WILL NOT BE ACCEPTED ON THE DATE DUE FOR ASSIGNMENT 2

1. Due September 21 st-Food Guide Pyramid

Learn about the Food Guide Pyramid. First go to the following website:

<http://www.mypyramidtracker.gov/>

Register to assess your food intake. Put in your food intake for one day and have it analyzed. Answer the following questions:

- i. What information does this interactive program provide?*
 - ii. How does your diet compare to the Guidelines? What changes should you make?*
 - iii. Do you think this tool is useful for people trying to prevent chronic illnesses? Why or why not?*
 - iv. Do you think this is a useful tool for non-nutrition students or professionals – is it easy enough to understand?*
 - v. What changes would you suggest to make it more user-friendly?*
 - vi. The FGP was introduced in 2005. What updates would you suggest?*
- (Total all six parts - three pages)*

2. Due October 5 th -Dash Diet

Go online to:

http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf

- i. Read the information and summarize what the DASH diet is in your own words.*
 - ii. From the information provided, come up with an example meal plan for yourself for three days that fits within these guidelines. List all foods and calculate your daily sodium intake*
 - iii. Explain the usefulness of this diet to a client who is skeptical.*
- (Total all three parts – three pages)*

Due November 30 th (100 Points)

Community Project: Emergency Shelter Program in Fairfax

- i. Fairfax County has 6 emergency shelters for individuals and Families who are homeless.*

Go to <http://www.Fairfaxcounty.gov/dfs/factsheets/emershelter.htm>

- i. Describe each shelter in the county and find out the location.*

ii.. *Visit one of the shelters in the county and write a report using the following outline.*

- 1. What is the capacity of the shelter?*
- 2. How many are living in the shelter?*
- 3. What types of services they receive?*
- 4, who provide these services?*
- 5. List the community resources for this shelter*

*Look in the Web site the Department of Family services.(DFS) of Fairfax County .
Write a brief report of DFS services for the Adult and Aging population.*

This report must be typed double spaced, 12 point font, 1-inch margins and should be at least 3 pages not more than 5 pages. No hand written work will be accepted.

Extra Credit. *Extra Credit is due by December 1st.*

There are two possible ways to receive extra credit in this class.

- 1. Exams:** Each exam will have a short answer question(s) that will be based on extra credit readings.
- 2. Interview:** You can receive up to 10 points by conducting an interview with a nutrition expert (not me) or an expert in chronic illnesses who has had considerable experience working with clients with chronic illnesses. Summarize the interview into a 3- page report. The minimum information that you should obtain, is:
 - 1. Who is this person? Where do they practice? What are his/her credentials?
How long has he/she been working as a nutrition expert?**
 - 2. What kind of chronic illnesses does he/she find most common?**
 - 3. What kinds does he/she find to be most affected by diet?**
 - 4. Does he/she find that most people adhere to his/her advice?**
 - 5. What are most common problems when counseling people with chronic illnesses?**
 - 6. What, if any, insurance barriers does he/she face?**

ATTENDANCE:

Attendance (including tardiness) and class participation will be taken into account to evaluate your grade. You are expected to attend all classes and participate in class discussion. For example, if you have missed any classes and/or have been late, or have not participated in class discussion, your grade will be downgraded from a B+. to a B. If you have a LEGITIMATE reason to miss class or be tardy, documented illness, family emergency, etc. please email me before class. IF YOU ARE RUNNING MORE THAN 10 MINUTES LATE, YOU WILL NOT BE ALLOWED TO ENTER THE CLASSROOM, unless prior arrangement has been made.

Cell phones and pagers:

Please refrain from using and turn-off cell phones and pagers during lecture.

Late assignment policy:

I will accept assignments late; however, they will be docked 5% for each day late. I will NOT accept assignments any later than 2 weeks past the due date. You may email me your assignment however I must receive it **before the start** of class on the day it is due to be counted “on time”. I WILL NOT accept late assignments in my department mailbox.

DATES OF NOTICE:

September 7 th	Labor Day (no classes)
September	Last day to drop classes (no reimbursement)
October 12 th	Columbus Day (no classes) Monday classes meet on October 9 th
November 26 th -29 th	Thanksgiving recess
December 7 th	Last day of classes
December 14 th	Final Exam

Schedule: Please note that this schedule is subject to change.

Day	Topic	Assignment
8/31	Go over syllabus - Introductions - Overview of Nutrition Pick presentation groups	Chapters 1- 12 (these are only for review, except as noted below) Internet assignment #1 Do Quiz #1(take home)
9/14	- Nutrition Adulthood & later years	Read Chapter 16 Review pp. 338-344 565 -576
9/21	- Obesity - - Early development of chronic illnesses Internet assignment #1 due	Chapter 8 Highlight Chapter 15 Highlight Read Chapter 8 p258-267;
9/28	- - Life Cycle Nutrition - Pregnancy and Lactation	Chapter 14 Internet assignment #2
9/29	- Hunger and malnutrition - Face Hunger Program - 60 minutes video (?) “Walk the line”	Chapter 16 Highlight Take home Quiz 1 Due
10/5	- Osteoporosis and Calcium	Chapter 12 Highlight

	Read Chapter 12 pages 431 -438	
	- Nutrition assessment	Read Chapter 17, pp595-599
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	Internet assignment #2 due	
10/19	- Diabetes Mellitus Turn in Quiz # 1	Read Chapter 26, Chapter 4 124-127 Study for Exam 1
10/26	- Disorders of the Heart Exam I	Read Chapter 27
11/02	- Eating disorders -	Read Chapter 9 Highlight
11/09	- Lower GI tract disorders	Read Chapter 24 Do Quiz #2 (take home)
11/16	- Renal Disease - Liver Disorders	Read Chapter 28 Read Chapter 25
11/23	- Anemia in illness	Highlight; Chapter 19 Read pages 442 -450 -
11/30	- HIV/AIDS - Nutritional Assessment paper due (turn in copy and keep a copy) presentation of findings	Take home Quiz 2 Due Finish extra credit
12/7	- Complete presentation of nutr'l assessment findings - Wrap-up - Review for final exam - Turn in Quiz# 2 - Extra Credit Due	Study for final exam
12/14	- FINAL EXAM, 1:30-4:15PM	