

LEARN BEYOND THE BOOK, DIVISION OF HEALTH SCIENCES

COURSE: NUTRITION FOR HEALTH

FALL 2016

COURSE DESCRIPTION

Introduces the fundamentals of nutrients throughout the life course, basics of sensible and safe food choices, achievement and maintenance of nutrition well-being, and practices related to consumer health promotion and disease prevention.

Nutrition for Health consisted of two parts. The first six-weeks is independent study to develop a knowledge base and the second six-weeks will focus on application, field trips, and experiential learning. This is equivalent to one semester of high-school health science. Nutrition for Health is recommended for advanced middle or high school students that are interested in health and preventive medicine and/or are motivated to pursue a career in the medical or allied health sciences.

COURSE INFORMATION

NUTRITION MEETS:	Monday, 5:45 to 7:45 pm
LOCATION:	Remotely for the 1 st half and LBTB for the 2 nd half.
INSTRUCTOR:	Jessica Schulman, PhD, MPH, MA, RDN, CLE
EMAIL	dietdoc@sbcglobal.net
OFFICE HOURS:	by appointment

STUDENT LEARNING OUTCOMES

Study the nutritional components of a diet and the relationship that each aspect plays in the role of health promotion and disease prevention throughout the life course. Examine current dietary issues and the challenges they present in relationship to health, disease, and quality of life.

COURSE OBJECTIVES

1. Analyze nutritional behaviors and practices leading to improved health and well-being.
2. Examine the different organ systems in relationship to their role in the digestion, absorption, utilization and storage of nutrition.
3. Formulate an adequate diet plan utilizing the tools of dietary principles, standards and guidelines established by multiple health agencies.

4. Compare and contrast carbohydrates, proteins and lipids in relationship to their functions, chemical structures, health concerns and food sources
5. Examine the roles that vitamins and minerals play in relation to the health and well being of individuals.
6. Assess various weight control measures and treatment modalities as to their effectiveness in ensuring healthy weight and body composition standards, along with adequate nutritional intakes.
7. Examine the benefits of regular physical activity and the role it plays in maintaining the health and well being of individuals.
8. Develop strategies that will identify common food safety issues and ways to prevent food borne illness

REQUIRED READING

1. NUTR, by Michelle McGuire and Kathy A. Beeman. 2012 or later. ISBN-13: 978-1111578923 Available online or at: <http://www.cengage.com/us/>
2. Nutrition in Sickness and in Health by Jessica Schulman.
3. Relational Nutrition: The Psychology of Attachment and Food Behavior by Jessica Schulman

COURSE GRADES

Your final course grade is based on the following:

Grading is as follows:

Quizzes (5)	50 pt	90-100%	= A
Final Exam	50 pt	80-89%	= B
Assignments (3)	30 pt	70-79%	= C
Class Presentation	10 pt	60-69%	= D
Participation	10 pt	59% or below	= F

Total 100% = 150 pts

NO MAKE-UPS. Class attendance is required to receive full participation. No more than 2 absences are allowed or you will be dropped from the course.

Week	Course Schedule: Topic	Readings & Assignments
1	Introduction to Nutrition & Fitness	Chapter 1 & Quiz

	<ul style="list-style-type: none"> • <i>Meaning of nutrition.</i> • <i>Purpose and classification of nutrients (major groups).</i> • <i>Calories and energy.</i> • <i>Scientific method & validity of nutrition claims.</i> • <i>The connection between nutrition and health.</i> 	
2	Choosing Foods Wisely <ul style="list-style-type: none"> • <i>Methods by which nutritional status is assessed.</i> • <i>Estimate dietary intake.</i> • <i>Food guidance systems.</i> • <i>Food labels and planning a healthy diet.</i> • <i>Apply your knowledge: set goals and assess.</i> 	Chapter 2 and Quiz
3	Body Basics <ul style="list-style-type: none"> • <i>The connection between chemistry and nutrition.</i> • <i>The process of digestion.</i> • <i>The process of absorption.</i> • <i>Nutrients throughout the body.</i> • <i>Metabolism and its role.</i> 	Chapter 3 & Quiz <ul style="list-style-type: none"> • Start 3-day intake (health log)
4	Carbohydrates <ul style="list-style-type: none"> • <i>Simple carbohydrates.</i> • <i>Complex carbohydrates.</i> • <i>Body digestion, absorption, and circulation of carbohydrates.</i> • <i>Storage, use, and regulation of glucose.</i> • <i>The two types of diabetes.</i> • <i>Carbohydrate intake recommendations.</i> Protein <ul style="list-style-type: none"> • <i>Amino acids, proteins and their components.</i> • <i>Process by which cells make proteins.</i> • <i>Genetics and epigenetics.</i> • <i>Explain protein digestion, absorption, and circulation.</i> • <i>Major functions of proteins in the body.</i> • <i>Calculate daily protein needs.</i> • <i>Vegetarian diets, protein deficiency and excess.</i> 	Chapter 4 & 5 and Quizzes
5	Lipids <ul style="list-style-type: none"> • <i>Major lipid types and health impact.</i> • <i>Function of lipoproteins.</i> • <i>Essential, conditionally essential, & nonessential fatty acids.</i> • <i>Mono-, di-, and triglycerides, phospholipids and sterols.</i> • <i>Triglyceride digestion, absorption, and circulation.</i> • <i>Utilize dietary recommendations for lipids.</i> 	Chapter 6
6	The Vitamins <ul style="list-style-type: none"> • <i>Water soluble and non-water soluble.</i> • <i>Functions, dietary sources, toxicity.</i> • <i>Supplements and controversies.</i> • <i>RDI's.</i> Water and the Minerals <ul style="list-style-type: none"> • <i>Why water is essential & function of water.</i> • <i>Differentiate and understand the major minerals.</i> • <i>Micro-nutrients, electrolytes and trace minerals.</i> • <i>RDI's.</i> 	Chapter 7 & 8 Choose one vitamin and one mineral. Prepare 10 minute presentation (one for each nutrient) for the class. Create fact sheet on each micro-nutrient. This will be done in class for week 7.

	<ul style="list-style-type: none"> • <i>Functions, sources, toxicity.</i> • <i>Dietary sources.</i> 	
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PART 2: Experiential Learning

7	<ul style="list-style-type: none"> • Class presentation: One vitamin and one mineral. Each student will have 10 minutes to present their micro-nutrients to the class. Create fact sheet on each micro-nutrient. 	Class micronutrient presentations.
8	<ul style="list-style-type: none"> • View and discuss film: A seat at the Table • Determine how you will live on a limited budget and eat a balanced meal for three days. 	Optional Fieldtrip: Visit a Food Pantry
9	<ul style="list-style-type: none"> • Demonstration: Energy Balance and Body Weight (Chapter 9). Students will participate in a mock clinic visit and will be prepared to: <ul style="list-style-type: none"> • <i>Discuss factors that affect energy balance.</i> • <i>Total energy expenditure (TEE) and components.</i> • <i>Body weight, composition, and assessment.</i> • <i>Energy balance, weight management, & obesity.</i> 	Mock Clinic Visit. (Complete the readings for Chapter 9.) Track diet for 3 to 5 days
10	<ul style="list-style-type: none"> • View and discuss film: Fed-Up • Complete a dietary assessment on your patients (peers). • Learn how to run a dietary analysis. 	Track Diet (3-day food record analysis) In-class assignment.
11	<p>Nutrition and Physical Activity</p> <ul style="list-style-type: none"> • <i>Discuss how to become a registered dietitian.</i> • <i>Participate in round table discussion and Q & A</i> • <i>Review Chapter 11 and identify the best methods to track activity. Bring resources and electronic training apps to class.</i> • <i>Discuss why physical activity matters in health and disease.</i> • <i>Discuss how the body uses nutrients to fuel physical activity.</i> • <i>Explain the effects of exercise and athletic training on the body.</i> • <i>Identify forms of activity influence dietary requirements.</i> 	Review Chapter 11 Identify best methods to track activity. Bring electronic applications and monitoring devices to class.
12	<p>View the film: Lorenzo's Oil.</p> <ul style="list-style-type: none"> • Discuss the health consequences of fat (positive and negative) • Learn about disease states that are influenced by fat intake. 	Optional Fieldtrip: Attend tour of supermarket and identify foods with sources of healthy or unhealthy fats.
Final	Day and Location of Final Exams to be Determined	

POLICIES & PROCEDURES

Assignments and Tests:

- NO MAKE-UPS FOR EXAMS – NO EXCEPTIONS!
- NO LATE ASSIGNMENTS.
- Can I email you my assignment? No. Turn in your assignments directly to me in class. I do not accept assignments that are e-mailed or placed in my box.
- Emergencies: For an illness or serious unexpected and verifiable emergency, you must notify me PRIOR to the exam or assignment. (Any notification after the exam or assignment will not be accepted).
- No recording of lectures or PowerPoint slides, without explicit permission.
- If you are absent, it is your responsibility to find out what you have missed.
- This includes quizzes, course material, etc.
- Participation points will be awarded for in class activities. If you are not in class when these activities occur, you will not be allowed to make them up

Attendance:

- Attendance is necessary for success in the class. Absences will negatively affect your final grade.

Withdraws:

It is your responsibility (not your instructor's) to officially drop the course before the official "drop" deadline if you do not intend to remain in the class. Please consult the Schedule of Classes for deadlines and information on how to "withdraw" or "drop" a class.

Honesty, Integrity and Ethics:

Learn Beyond the Book has policies against plagiarism and academic dishonesty. If any student is has been involved with any of the following types of academic dishonesty, they will receive a failing grade. Plagiarism or the submission of someone else's work or ideas as one's own, without adequate attribution.

Classroom Courtesy

- Arrive to class on-time and **sign in or out daily**.
- Mobile device holiday! Turn off all mobile devices and put them out of view.
- Contribute to the class discussion when appropriate. Stay on topic. Do not dominate the discussion. Help others have a chance to talk.
- Avoid side conversations.

- All you should have on your desk is a notebook and a writing utensil.

Strategies for Success:

#1: Organization is the key!

- ✓ Read your syllabus, twice.
- ✓ Calendar all of the assignments, exams, holidays, etc. Give a 24 hour reminder.
- ✓ Aim to arrive in class 5 minutes early.
- ✓ Keep current with reading. Read the quiz questions then read the chapter.

#2: Utilize Your Resources.

- ✓ Ask your peers to go over the deadlines.
- ✓ Request office hours, if needed.

#3: Self-care & Social Support.

- ✓ Find a study friend.
- ✓ Ask questions.

National Suicide Hotline number: 1-800-273-8255

- ✓ All student at COC are encouraged to enter that phone number in their cells. Call if you, or someone you know, is in severe distress and/or having suicidal thoughts.
- ✓ Get plenty of sleep and good nutrition!

RECOMMENDED RESOURCES

Books:

Nutrition in Sickness and in Health by Jessica Schulman

Mindless Eating by Brian Wansink

Eat Drink and be Healthy by Walter Willett, MD

Films/Documentary:

A Place at the Table, Documentary/Film

Forks Over Knives, Documentary by Lee Fulkerson & John Corry

Lorenzo's Oil, Documentary/Film

The Garden, Documentary/Film