

BI131 – Human Nutrition

Spring 2015

Syllabus

Instructor: Dr. Michael Weichhaus
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Office Hours: Tue: 15:00-17:00 and Thu: 09:00-12:00
Class Hours: MWF 11:30-12:20 Clarence T.C. Ching Hall, Room 251

Texts:

- Smolin & Grosvenor: "Nutrition: Science and Applications", 3rd Edition 2013, Wiley

Aims of the course: This course covers the scientific basis of modern nutritional theory and practice. It will address the needs of both health professionals and anyone interested in personal nutritional requirements. Students will learn and apply these principles to diet planning for both everyday wellness, and also for the prevention and treatment of pathology. The anatomical, physiological, chemical and physical basis of this science will be explored. Student interest will determine which special topics will be emphasized. The student will be expected to apply these principles to a detailed analysis of their own diet.

At the end of the course you should be able to:

1. name the 6 nutrients, and further identify the energy yielding vs. the non-energy yielding nutrients
2. use the US Dietary Guidelines and MyPlate to evaluate the nutritional adequacy of your diet
3. use and understand the components of a food label
4. describe the role and state basic information about each of the six nutrients; such as functions in the body, risks of excesses/deficiencies, food sources, etc.
5. define malnutrition (as over or under nutrition) and discuss its causes, cures, and associated health effects
6. discuss current issues related to food safety
7. describe the physiological changes that occur from infancy thru old age, and explain the changes in nutrient needs that accompany these
8. discuss how alcohol and other drugs interact with nutritional processes
9. evaluate nutrition information in popular media for its soundness
10. understand how proper nutrition effects physical exercise ability
11. understand the role that proper nutrition plays in averting certain illnesses
12. gain an appreciation for nutritional science and biological sciences in general

Lecture Assignments

1. Lecture topics are listed on the attached outline. Each lecture has a reading assignment to be completed by the student
2. Each student will be expected to complete 4 summaries of **nutritional research** articles published in scientific journals. These articles will be provided by the instructor **TWO** weeks, before the assignment is due. Each will consist of a 250-500 word summary.
3. Attendance is expected in lecture sessions. A sign in sheet will be passed around during each class., and unexcused absences (more than 3) may result in a decrease in grade by one grade level. If you know that you will be unable to attend a class then please let me know by e-mail. Unexcused absence for two consecutive weeks may result in the student being withdrawn from the course without notice. The student is responsible to catch-up on all topics/material covered during their absence.

Evaluation of Student Performance

1. Separate grades are given for lecture and laboratory. It is possible to receive different grades for lecture and laboratory.
2. There is no curve for exams or final scores. The scale used is given below.
3. There will be three midterm exams and one final exam for this course. Exam schedule is attached.
4. The final examination is a two-hour comprehensive examination including topics from the beginning of the course.
5. Extra credit work is NOT available.
6. Missed exams can only be made up for valid excuses (to be determined by the instructor). In cases of illness, a physician's note is necessary.
7. The lecture grade will be determined in the following manner:

Summaries	8 percent	Strict scale:	90% - 100% = A
1 st Lecture Exam	21 percent		80% - 90% = B
2 nd Lecture Exam	21 percent		70% - 80% = C
3 rd Lecture Exam	21 percent		60% - 70% = D
Final exam	<u>29 percent</u>		Below 60% = F
	100 percent		

Class standing:

The instructor, prior to the withdrawal deadline, will notify students with grades of D or lower. Students receiving deficiency notices are required to arrange a conference with instructor.

Music Devices and Cellphones

Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. Use of cellphones and music devices in laboratories is a safety issue. In addition, use of cellphones 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.

ADA Accommodations

Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from the CUH Counseling Center (Dr. June Yasuhara; phone 735 - 4845) by the end of week three of the class, in order for the instructor to plan accordingly. Failure to provide written documentation will prevent your instructor from making the necessary accommodations. Please refer any questions to the Dean of Students and review the procedures at http://www.chaminade.edu/student_life/sss/counseling_services.php.

Academic Honesty

We expect you to behave with integrity and hold both yourself and your peers to the highest standards of ethical behavior. Academic dishonesty encompasses, but is not limited to: (1) plagiarism (i.e., copying another individual's words or ideas without appropriately citing the source); (2) turning in assignments that somebody else has completed; (3) referring to notes or other written/electronic materials, collaborating with others, copying someone else's work, or providing answers to others in any fashion during an examination. Please note that knowledge of others' cheating and failure to report this can also be construed as complicitness in academic dishonesty. Should we have reason to suspect that academic dishonesty has occurred; we will conduct a thorough investigation or may refer the matter to the Dean of Students for investigation. Possible sanctions should you be found responsible for academic dishonesty could include a failing grade for the course, suspension or even expulsion from the University. Such consequences could negatively affect your candidacy for graduate/professional programs or for some jobs.

Nutritional Research Article Summaries

1. Each student is to submit a summary of a scientific article pertinent to human nutrition . The principle objective of the summary is to expose and engage the student in reading and understanding scientific literature. Another objective is to increase the student's ability to concisely summarize scientific information.
2. The research articles to be summarized will be provided by the instructor **TWO** weeks before the summary due date below. Students are expected to submit individually written summaries. Group work, interaction with the instructor and seeking help online is desired.
3. There will be four summaries due during the semester. The summaries will count as a total of 8% of your grade (2% each).
4. Summaries must be typed or word processed (use 12 point font). University writing standards are expected. Summaries should be between **250-500 words**.
5. Summaries will be graded for the presence and quality of the following:
 - Capturing the research field (What are they studying?)
 - Addressing the research question (What is the lack of understanding they are trying to address?)
 - Identifying the hypothesis and/or aim the article plans to address (Do they propose a mechanism of how the unknown works, or are they aiming to find out?)

 - Clarity
 - Conciseness

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Week	Date	Lecture	Reading assignment	Comments
1	1/12	Syllabus of course, Course overview		
	1/14	No class		
	1/16	Health and Nutrition	Chapter 1	1 st writing assignment
2	1/19	Martin Luther King Jr. Day Holiday – No class		
	1/21	Marianist Founders' Day Mass - No class		
	1/23	Diet Design	Chapter 2	
3	1/26	The human body 1	Chapter 3	
	1/28	The human body 2		
	1/30	Carbohydrate 1	Chapter 4	Summary 1 due
4	2/2	Carbohydrate 2		
	2/4	Exam Review		
	2/6	EXAM #1		
5	2/9	Lipids 1	Chapter 5	
	2/11	Lipids 2		
	2/13	Lipids 3		2 nd writing assignment
6	2/16	Presidents' Day Holiday – No class		
	2/18	Protein 1	Chapter 6	
	2/20	Protein 2		
7	2/23	Vitamins 1	Chapters 8 and 9	
	2/25	Vitamins 2		
	2/27	Water and Minerals 1	Chapters 10, 11 and 12	Summary 2 due
8	3/2	Water and Minerals 2		
	3/4	Exam Review		
	3/6	Exam #2		
9	3/9	Energy Balance and Weight 1	Chapter 7	
	3/11	Energy Balance and Weight 2		
	3/13	Energy Balance and Weight 3		
10	3/16	Eating Disorders	Chapter 7 FOCUS	
	3/18	Eating Disorders		
	3/20	Eating Disorders		Summary 3 due
	3/23	Spring Recess – No class		
	3/25			
	3/27			
11	3/30	Nutrition and Exercise 1	Chapter 13	
	4/1	Nutrition and Exercise 2		
	4/3	Good Friday Holiday – No class		
12	4/6	Food Safety 1	Chapter 17	
	4/8	Food Safety 2		
	4/10	Pregnancy and Breast Feeding 1		4 th writing assignment
13	4/13	Pregnancy and Breast Feeding 2	Chapter 14	
	4/15	Exam Review		
	4/17	Exam #3		
14	4/20	Infancy through Adolescence	Chapter 15	
	4/22	Infancy through Adolescence		
	4/24	Infancy through Adolescence		Summary 4 due
15	4/27	Nutrition and Aging	Chapter 16	
	4/29	Nutrition and Aging		
	5/1	World Hunger and Global Overview	Chapter 18	
16	Final Exam Wednesday, May 06, 2015, 11:00 –01:00 PM			

Every effort has been made to insure that the material in this syllabus is accurate and complete. However, occasionally changes must be made to the printed schedule. Thus the instructor reserves the right to make any changes in the contents of this syllabus that he deems necessary or desirable. These changes, if any, will be announced as soon as the need for them becomes apparent.