

Biology 131 Human Nutrition
Chaminade University of Honolulu
Mrs. Patricia Lee-Robinson
Spring 1999

Class meetings: Tuesdays and Thursdays, 9:30-10:50 am, Henry Hall Room 33

Office: Henry Hall Room 16

Office Hours: Tuesdays and Thursdays 8:30-9:20, and by appointment. Please Note: pending the **scheduling** of another course, office hours may be changed.

Telephone: 735-4804 (please leave a voice message)

Course Description: Biology 131 is a 3-credit beginning level biological science course that integrates basic concepts of science with the study of human nutrition. It is designed for the student who wants an introduction to nutrition and who may later choose to major in it. No college-level science background is required; rather the course will provide elementary aspects of the several biological sciences that are needed. Concurrent registration in Biology 131L is required. Separate grades are granted for lecture and for laboratory.

Course content includes information on what nutrients are and what nutrients and foods do for humans; how healthy people can best get the amounts of nutrients and foods they need throughout their lifetime; how people and the environment change foods and their nutrient content; and nutrition issues of current interest.

The primary objective of this course is to provide a science-based nutrition background that will help you make appropriate, informed choices from the vast array of foods available in today's marketplace. Upon completion of this course you should be able to:

- 1) identify factors that influence why you eat as you do and how to make changes in your diet.
- 2) compare the various types of nutrition research with respect to type and reliability of information produced.
- 3) use the U.S. Dietary Guidelines and Food Guide Pyramid to evaluate the nutrient adequacy of your diet.
- 4) describe what nutrients are and state basic information about each of six categories of nutrients (e.g., functions in the body, risks of excesses/deficiencies, sources, guidelines for intake).
- 5) identify which nutrients are sources of energy for the body and how an excess or a deficiency of energy can affect the body.
- 6) define malnutrition as over- and undernutrition and discuss its causes, cures, and associated health effects.
- 7) discuss current issues related to the safety of the food supply using concepts from toxicology.
- 8) describe physiological changes that occur during the life span and explain the changes in nutrient needs that accompany these changes.
- 9) discuss how alcohol and other drugs interact with nutritional processes.
- 10) evaluate nutrition information in popular media critically, with respect to its correctness.

HELP is available when you need or want it. If you are having trouble with the course or have questions or comments, please arrange an appointment.

Required Text: G.M. Wardlaw. Contemporary Nutrition: Issues and Insights, Brown and Benchmark Publishers, 1997, 3rd Edition (abbreviated GMW).

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Course Grade: The final grade for the course will be based on three components:

Four 40-minute examinations (35 points each)	140
Quizzes	20
Average of 3 written assignments	40
Final Examination (mandatory)	100
Total Points	300

Specific **information** about grading will be discussed during the **first** week of classes. Letter grades will **NOT** be assigned to individual assignments or exams; however, approximate grades for score ranges will be discussed in class.

Examinations: Four **40-minute** in-class exams and a 120-minute **in-class** final will be given to provide the majority of the input for **evaluating** your learning in the course. Mark your **calendars** for the correct dates and times.

NO MAKE-UP EXAM WILL BE GIVEN

If you miss an exam and bring a written doctor's (MD's) excuse for illness, your exam score will be figured on the three remaining exams. If you do not bring a medical excuse within a week of missing the exam, no credit will be given and ~~that portion of your exam~~ will be figured on 4 exams, with the unexcused, missed exam entered as a "zero". NO student may miss 2 or more **examinations**; **NO student will** pass the course without taking the final **examination**.

Because the university is an academic community with high professional standards, its teaching function is seriously **disrupted** and subverted by academic **dishonesty**. Such dishonesty includes, but is not limited to, **cheating**, which includes **giving/receiving** unauthorized assistance during an examination; obtaining information about an **examination** before it is given; using **inappropriate/unallowed** sources of information during an **examination**; altering answers after an examination has been **submitted**; and altering the record of any grade. Refer to the Chaminade University **General Catalog** for further information.

Assignments: Three written homework exercises will be assigned during the semester. **ASSIGNMENTS MUST BE TURNED IN DURING THE CLASS PERIOD ON THE DAY THEY ARE DUE, NOT AFTER THE CLASS; THEY WILL NOT BE ACCEPTED LATER IN THE DAY. NO** credit will be given for an assignment turned **in after** its due time and date.

Before you begin each assignment, you may want to make a photocopy of the pages you will be handing in. This way, if you make a mistake, it will be easier to re-do your work on a clean page.

Topics/Readings for Semester (tentative)

Date	Topic	Reading
Week #1 11-15 Jan.	Syllabus and Introduction What you eat and why	GMW Preface to the student, pp xiii-xx GMW Chapter 1, pp 2-33
M 18 Jan.	Holiday: Martin Luther King Day: no class	
Week #2 19-22 Jan.	What you eat and why (continued) Tools for diet design	GMW Chapter 2, pp 34-69
Week #3 25-29 Jan.	Tools for diet design (continued) Nutritional advice: Facts and Fallacies The human body: A nutrition perspective ASSIGNMENT #1 Due: Assessing dietary intake Due date: Thursday, January 28	GMW Chapter 3, pp 70-103 GMW Chapter 4, pp 110-137 Appendix G, pp G1-G2
Week #4 1-5 Feb.	The human body: A nutrition perspective (continued) Water	GMW Chapter 9, pp 296-305
Week #5 8-12 Feb.	Carbohydrates EXAMINATION #1(40 minutes): Thursday, February 11 (covering topics through "The human body: A nutrition perspective")	GMW Chapter 5, pp 138-173
M 15 Feb.	Holiday: Presidents' Day: no class	
Week #6 16-19 Feb.	Carbohydrates (continued) Lipids	GMW Chapter 6, pp 174-215 <u>Ch. 8</u> p. 289-295

Date	Topic	Reading
Week #7 22-26 Feb.	Lipids (continued) Protein	GMW Chapter 7, pp 216-245
Week #8 1-5 Mar.	Protein (continued) Weight Control EXAMINATION #2 (40 minutes): Thursday, March 4 (covering "Water" through "Proteins")	GMW Chapter 10, pp 350-399 GMW Chapter 11, pp 408-413
Week #9 8-12 Mar.	Weight control (continued) Anorexia nervosa and bulimia nervosa (This topic will be presented in laboratory) Assignment #2 Due: Determining a daily "fat budget" (This will be introduced in laboratory on March 1) Due date: Thursday March 11	GMW Chapter 13, pp 458-487
Week #10 15-19 Mar.	Undernutrition throughout the world Vitamins	GMW Chapter 18, pp 644-681 GMW Chapter 8, pp 246-295 GMW Chapter 4, pp 104-107
Mar. 22-26	Holiday: Spring Break: No classes	
Week #11 29 Mar. - 1 Apr.	Vitamins (continued) Minerals EXAMINATION #3 (40 minutes): Thursday, April 1 (covering "Weight Control" through "Undernutrition throughout the world")	GMW Chapter 9, pp 296-297 pp 306-348
F 2 Apr. M 5 Apr.	Holiday: Good Friday: no class Last day to withdraw from classes. Last day to apply for credit/no credit option.	
Week #12 5-9 Apr.	Minerals (Continued) Food Safety ASSIGNMENT #3 DUE: Current food safety issues Due date: Thursday April 8	GMW Chapter 17, pp 610-643

Date	Topic	Reading
Week #13 12-16 Apr.	Food Safety (continued) EXAMINATION #4 (40 minutes): Thursday, April 15 (covering topics "Vitamins" through "Food Safety")	
Week #14 19-23 Apr.	Pregnancy and breastfeeding Nutrition from infancy through adolescence	GMW Chapter 14, pp 490-527 GMW Chapter 15, pp 528-569
Week #15 26-30 Apr.	Nutrition: Athletics and fitness (This topic will be presented in laboratory) Nutrition during adulthood Charting a course for change Future Food	GMW Chapter 11, pp 400-433 GMW Chapter 16, pp 570-608 GMW Chapter 12, pp 434-457 To be announced
Week #16	Monday, May 3, 1999, 8:00-10:00 am: FINAL EXAMINATION (120 minutes) (part comprehensive and part covering "Nutrition for pregnancy and breastfeeding" through "Future Food")	

GMW: TEXT

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

BIOLOGY 131L HUMAN NUTRITION LAB (1 CREDIT)

Chaminade University of Honolulu

Mrs. Patricia Lee-Robinson

Spring 1999

Meetings: Mondays 2:00-4:50 pm, Henry Hall Room 13

Office: Henry Hall, Room 16

Office Hours: Tuesdays and Thursdays 8:30-9:20 am

or by appointment

Phone: 735-4804 (leave message)

COURSE SYLLABUS AND TENTATIVE OUTLINE

TEXT: No text will be required for laboratory. The instructor will provide laboratory handouts for each laboratory. Students must keep a looseleaf laboratory notebook in which all handouts and notations will be placed.

OBJECTIVES: The primary objective of the **Human** Nutrition Laboratory is to present the practical methods and techniques used in the study of human nutrition.

At the completion of the laboratory course, each student should be able to do the following:

1. Evaluate their nutritional status (nutrient intake and expenditure) both through manual methods and also through the use of computers;
2. Identify structures of the human digestive system;
3. Explain techniques used to test for the effectiveness of digestive enzymes;
4. Perform simple laboratory experiments; and
5. Write short laboratory reports

ASSIGNMENTS, OUTLINE, and ATTENDANCE:

1. Lab handouts will be provided.
2. All students are expected to read handouts prior to lab.
3. All assignments must conform with the Chaminade University Writing Standards
4. The laboratory outline is a tentative outline and adjustments may be made with topics omitted or added.
5. Attendance is mandatory. Students are expected to be prompt for laboratory. Unexcused absences may result in the lowering of the final laboratory grade by one letter grade for each **unexcused** lab absence.

MAKEUP WORK:

Makeup labs and quizzes are not normally given. See your instructor regarding any extenuating circumstances.

LATE PAPERS:

Biology department policy: Papers submitted within 24 hours after the due date are lowered by one letter grade. Papers submitted after 24 hours after the due date are not accepted.

GRADING:

1. A separate grade is given for laboratory.
2. There will be two lab quizzes. The first quiz will cover material in the lab up to that date, and the second quiz will cover the material since the first quiz.
3. The laboratory grade will be determined as follows:

Quizzes 25%
Writeups.65%
Attendance and participation..... 10%

CLASS STANDING, OFFICE HOURS AND EXTRA HELP:

1. Students may obtain their grades at any time by consulting with the instructor. Students with D or F grades will receive deficiency notices. It is recommended that students receiving deficiency notices make an appointment to see the instructor.
2. Office hours are listed at the beginning of the syllabus. Students are urged to make appointments if student schedules conflict with office hours.
3. Tutoring services are available through the Chaminade University Learning Center.

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TENTATIVE LABORATORY OUTLINE

DATE	TOPIC/ASSIGNMENTS
Jan 11	Laboratory Orientation Nutrition Quiz
Jan 18	Father Chaminade/Martin Luther King Day - no classes
Jan 25	Computerized Diet Analysis (Last names A-L: 2:00 pm Last names M-Z: 3:00 pm)

Feb 1	Digestive System Video, Models, Slides - Prepare for next week's quiz
Feb 8	Quiz on Digestive System Water Content in Foods lab(*)
Feb 15	Presidents' Day: no classes
Feb 22	Finish Water in Foods Lab: Report to follow Digestive Enzymes(*)
Mar 1	Food labels(*) Fat Budget worksheet(*)
Mar 8	Quiz I
Mar 15	Eating Disorders video
March 22-26	Spring break: no classes
Mar 29	Ergogenic Aids Research/Supermarket tour(*)
April 5	Ergogenic Aids Presentations(*) Nutrition for Athletes Last Day to Withdraw from Classes' Last Day to Apply for Credit/No Credit Option
April 12	Computerized Diet Analysis(*) (Last names M-Z: 2:00 pm; Last names A-L: 3:00 pm)
April 19	Sodium Analysis(*) Food Safety(*)
April 26	QUIZ II

(*) =writeups will be required.