

University of Puerto Rico  
Río Piedras Campus  
Nutrition and Dietetics Program  
Natural Sciences Faculty

Course Title: Applied Human Nutrition I  
Course Code: NUTR 4045

Credits/Hours: One credit. Two hours of workshop or laboratory work per week.  
Prerequisites: BIOL 3711-3712, CHEM 3001; Access to a computer with Internet and e-mail address.

Professor: *Dr. Celia Mir RDN, LND, CFCS, CWCM, CGIMg, DEPR, REPR, CCMg, CPhA*  
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Course Description: Practices and applications of the techniques and methods used in human nutrition that help us to identify and describe a healthy nutrition status and different stages of malnutrition.

Course Objectives or summary of Expected Outcomes of the course:  
By the end of the course, the students should be able to:

1. Describe the roles and characteristics of nutrients in the body.
2. Identify the nutritional needs of individuals.
3. Use of the American and Puerto Rico Nutritional guidelines.
4. Use the Food Composition Tables correctly and precisely.
5. Use computerized nutritional analysis tools available online to determine composition of foods and adequately plan balanced meals.
6. Discuss the importance of serving sizes and portions in nutrition.
7. Identify nutrients in labels and associate them with standard recommendations.
8. Analyze and evaluate recipes and menus, and recommend alternatives to improve their nutritional value.
9. Calculate and identify nutrients intakes vs daily recommendations.
10. Follow the nutritional history of an individual and establish how to manage behaviors, beliefs, food habits and practice.
11. Describe the effects of deficiencies and excesses of nutrients and calories.
12. Determine and interpret the basic anthropometric measurements.

13. Calculate energetic needs for healthy individuals during different stages of their life cycle.
14. Analyze potential indicators of overweight or underweight: Wt for Ht normative standard, RMR, waist circumference, BMI, exercise frequency, food and calories intakes, change in appetite or taste, etc.
15. Evaluate adequate or inadequate intake of nutrients and energy. They need to determine quantity and quality of specific nutrients like carbohydrates, protein, lipids, vitamins, minerals and energy in the diet and the results of ingestion over prolonged periods of time.
  
16. Consult or visit clinical or community nutritionists and dietitians to examine their performance related to the educational process.
17. Identify general functions of food supplements and herbs.
  
18. Summarize the theories and practices that attempt to explain underweight, eating disorders, overweight, obesity, etc.
19. Prepare different written learning strategies for changing the way we eat to use in diverse nutritional interventions.

***Foundation Knowledge Requirements and Learning Outcomes:***

Students are able to:

- 1.1 Demonstrate how to locate, interpret, evaluate and use professional literature to make ethical evidence-based practice decisions.
  
- 1.3 Apply critical thinking skills.
- 2.1 Demonstrate effective and professional oral and written communication and documentation.

**Course Content:**

<b>Unit Topic</b>	<b>Time in Hours (mean)</b>
Introduction	
Discussion of course objectives, Methodology, rules, equipment and evaluation	2
Why do we eat the way we do? Sensory and Cognitive influences	2
Cultural influences Food preferences	2
The Nutrients in Foods Dietary Reference Intakes	2
Dietary Guidelines USDA My Pyramid.gov	2
Food Labels Health Claims, Serving Sizes	2
Controversies	
Carbohydrates Sugar, Fiber	3
Lipids Fats, Oils, Sterols, Trans	3
Proteins Amino Acids	3
Vitamins and Minerals Supplements	3
Herbs	2
Energy Balance Exchange System and Calculations	5
Healthy Body Weight	
Body Fat and Kcalories	
Overweight and Obesity, BMI, etc.	3
Underweight, Anorexia, Bulimia	2
Physical Activity	3
Visits and strategies of intervention	6
Media and other topics	X

### Instructional Strategies or Teaching/Learning Methods:

Laboratory work, Discussion, Conference, Students' Oral Presentations, Case Discussions, Field Projects, Group and individual assignments, Group and individual projects, Life cycle food behaviors tasks, Food nutrients and composition analysis, etc.

Alternative methods in a no presencial scenario: videos, computer assisted search, computer assisted learning, internet connections, modules, virtual forums, chats, special tasks, diverse tasks, visits to food and nutrition programs, watch and observe professional in their field, etc. If necessary tests could be changed by projects or tasks on line. The UPR Certification Num 112 (2014-2015) is applied in this course - with 75% of face to face learning experiences and if necessary the additional 25% could be no presencial.

### Learning Resources:

Speakers, Access and skills to use a Computer with Internet connection (Word, Excel, Power Point and other, e-mail address, UPR email available (upr.edu), Calculator, Laboratory apron, Disposable gloves, Professional Journals, Books, Notebooks, Computer Lab, Moodle account, Food groups - energy and nutrients composition, computer apps, determination of deficiencies and excesses of nutrients, etc.

### Mission of the Didactic Program in Nutrition and Dietetics:

The mission of the Didactic Program in Dietetics is to provide the academic preparation necessary to form nutritionists-dietitians qualified to offer educational, administrative, and clinical services in medical nutrition therapy and in the management of food services systems. The Program provides professionals with the tools necessary to work in different scenarios within an ever-changing and culturally diverse society. The integration of knowledge and skills specialized in foods and nutrition will permit the graduates to promote the general welfare of the individual, the family and the community, helping them to obtain optimal nutrition, whether in health or in sickness, throughout their life span, in our diverse ever-changing society.

## Course Evaluation:

	<b>Mandatory Points</b>
1 Test*	100 points (20%)
Portfolio	200 points (60%)
>2 oral reports*	up to 50 points each (10%)
Assignments and lab skills	up to 50 points (5%)
Field Activities	<u>up to 50 points (5%)</u>
<b>Total Points</b>	<b>450 points (100%)</b>

\*If necessary

## Grading System:

Final grade will be calculated using the regular grading system and a standard curve as follows:

100 - 90 = A
89 - 80 = B
79 - 70 = C
69 - 60 = D
<59 = F

## Attendance, Punctuality, and Responsibilities:

In addition to 450 points to obtain an "A" Grade:

- This course is practical and demands hands on; therefore no more than one justified absence will be permitted. The final grade could be reduced 100 points in case of unjustified absences or continuous delays. Three late arrivals to class equal one absence.
- All submitted assignments or projects must meet acceptable standards expected of college students.
- Due dates are deadlines. One late assignments, project, or activity could drop the final grade one letter.
- No make-up exams, except those students who present a medical excuse, in which case arrangements will be made. You must communicate with the professor on or prior to the exam date. In case of an unjustified test replacement or incomplete removal no "A" grade is possible.
- Any student involved in violation of professional ethics or academic integrity in the completion assignment will receive a score of zero (0). This includes but is not limited to plagiarism of texts, journals, web pages, another student's work, attendance sheet, quizzes and exams.
- Mobile phones and other electronic devices are not permitted in the classroom for personal use. You can use them if the professor ask you to do it.
- All communication through email should include a brief greeting, message, student name, student number, course and section. The professor will reply according to schedule and priority. Emails are not to ask for grades; that information is going to be provided personally.

### Integrity:

The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR General Student Handbook establishes that all forms of dishonesty or lack of academic integrity include but are not limited to fraudulent actions, obtaining scores or grades by means of fraudulent simulations, partially or completely copying the academic work of others, partially or completely plagiarizing the work of others, partially or completely replicating answers during an examination, completing a written or verbal examination for another student or under another student's identity, as well as aiding or facilitating another in any of the aforementioned conducts. Correspondingly, fraudulent conduct refers to any behavior performed with the intention of committing fraudulent acts, including but not limited to, the alteration or falsification of scores and grades, records, identification cards or other official documents provided by UPR or any other institution. All conduct relating to cognizant attempts to circulate any aforementioned falsified or altered documents as being genuine and true will be subject to disciplinary sanctions. Any of these actions will be subject to disciplinary measures, as per the disciplinary procedure established in the UPR General Student Handbook.

### Student Information Regarding Law 51:

This course contributes, in an effective way, to the successful inclusion of students with disabilities in a classroom. Students who receive Vocational Rehabilitation should communicate with the professor at the beginning of the semester in order to plan for reasonable accommodation and/or acquisition of necessary special equipment, according to the recommendations of the Office for Persons with Disabilities and the Dean of Students Affairs.

**Bibliography:**

**Text:** Whitney E and SR Rolfes. (2018). Understanding Nutrition. 15 ed. CT: Cengage Learning. Boston, MA. ISBN – 13-978-285 87434

Additional Text:Sizer FS and E Whitney. (2016). Nutrition, Concepts and Controversies. 14 ed. Cengage Learning. Boston, MA. ISBN –13-978-130562

**Electronic References:**

The following Internet sites provide information for this course:

<http://healthfinder.gov/> - US Government Health information. Nutrition and Lifecycle-related topics.

[www.hhs.org](http://www.hhs.org) US Department of Health

[www.ncrhi.org](http://www.ncrhi.org) - National Council for Reliable Health

<http://www.eatright.org/> - The American Dietetic Association. Site with position papers.

<http://www.sneb.org/> - Society for Nutrition Education

<http://www.nap.edu/> - Review the Dietary Reference Intakes.

<http://health.gov/dietaryguidelines/2015/> -Dietary Guidelines for Americans

<http://www.choosemyplate.gov/> - US Department of Agriculture

[www.navigator.tufts.edu](http://www.navigator.tufts.edu) - Reliable nutrition information

<https://ndb.nal.usda.gov/> - Database for free food analysis

[www.ag.uiuc.edu/~food-lab/nat](http://www.ag.uiuc.edu/~food-lab/nat) - A free diet analysis program developed at the University of Illinois-Urbana Champaign.

[www.cfsan.fda.gov/label.html](http://www.cfsan.fda.gov/label.html) Useful facts about food labels; updates on label health claims.

<https://www.nlm.nih.gov/> - Free access to National Library of Medicine's Medline for information searches on a variety of health-related topics.

<http://caloriecontrol.org/> - The Calorie Control Council provides healthy recipes, calorie counter, BMI and calories expended during various exercise.

**Other Mandatory References:**

Torres, L. (2002) Estrategias de investigación para la inclusión. Facultad de Educación

[www.uprrp.edu/registrador/suplemento\\_5.pdf](http://www.uprrp.edu/registrador/suplemento_5.pdf)

Torres, L. (2002). Asistencia Tecnológica derecho de todos. Facultad de Educación

[www.uprrp.edu/registrador/suplemento\\_5.pdf](http://www.uprrp.edu/registrador/suplemento_5.pdf)

Reviewed in: March, 2018

Classroom assigned – 105

Classrooms 205, 207, 209 and my office 208B and 206 (substitute)– this is the second semester that are close down – sick and contaminated building with fiberglass in the ac system.