



Senado Académico  
Secretaría

# Certificación Núm. 84

## Año Académico 2020-2021

*Yo, Claribel Cabán Sosa*, Secretaria del Senado Académico del Recinto de Río Piedras, Universidad de Puerto Rico, **CERTIFICO QUE:**

En la reunión ordinaria a distancia celebrada de forma asincrónica a partir de 15 de marzo de 2021, y culminada de forma sincrónica el 18 de marzo de 2021, se acordó por unanimidad:

- Aprobar el **Proposal for the establishment of a Master of Science in Nutrition and Dietetics with a Supervised Experiential Learning at the Nutrition and Dietetics Program**, de la Facultad de Ciencias Naturales.
- La Propuesta forma parte de esta Certificación.

**Y para que así conste**, expido la presente Certificación bajo el sello de la Universidad de Puerto Rico, Recinto de Río Piedras, a los diecinueve días del mes de marzo del año dos mil veintiuno.

Dra. Claribel Cabán Sosa  
Secretaria del Senado

yrs

Certifico correcto:

Dr. Luis A. Ferrao Delgado  
Rector

Anejo





“Proposal for the establishment of a Master of Science in Nutrition and Dietetics with a Supervised Experiential Learning at the Nutrition and Dietetics Program, College of Natural Sciences, University of Puerto Rico, Río Piedras”.

Certification 32, Academic Year 2020-2021, Board of Governance  
(Amends Certification 64, Academic Year 2018-2019, Board of Governance)

## Nutrition and Dietetics Program

Approved by Curriculum Committee, Nutrition and Dietetics Program (April 2020)  
Approved by the Academic Affairs Committee, College of Natural Sciences (October 2020)  
Approved by the Board of Graduate Studies, College of Natural Sciences (December 2020)  
Approved by the Academic Affairs Committee, Academic Senate (March 9, 2021)  
Approved by the Academic Senate, (March 18, 2021)  
(Certification No. 84, Academic Year 2020-2021, Academic Senate)

## Table of Contents

<b>List of Abbreviations and Definitions .....</b>	<b>4</b>
<b>I. INTRODUCTION.....</b>	<b>5</b>
A. Name of the program and academic degree to be conferred .....	5
B. Program Description .....	5
C. Non-conventional modalities.....	6
D. Starting date .....	6
E. Length of the program and maximum time for completion .....	6
<b>II. PROFESSIONAL ACCREDITATION AND PRACTICE REQUIREMENTS.....</b>	<b>7</b>
A. Professional Accreditation.....	7
B. Professional Requirements .....	8
<b>III. JUSTIFICATION .....</b>	<b>9</b>
<b>IV. RELATION OF THE PROGRAM WITH THE INSTITUTION’S STRATEGIC PLAN .....</b>	<b>11</b>
A. Relation with the mission, UPR Strategic Plan and unit plan .....	11
B. Relation of the current academic offer with others inside and outside of the UPR.....	12
<b>IV. CONCEPTUAL FRAMEWORK .....</b>	<b>13</b>
A. Mission .....	13
B. Program goals, objectives and graduate profile .....	13
C. Teaching Philosophy .....	16
D. Coherence and sufficiency .....	16
<b>V. CURRICULAR DESIGN .....</b>	<b>17</b>
A. Curricular design and balance.....	17
1. Curricular structure .....	18
2. Flexibility .....	19
3. Balance .....	19
B. Curricular Sequence.....	20
C. Curricular coherence and sufficiency of the coursework .....	22
D. Educational methods .....	23
E. Syllabi of Courses .....	23
<b>VIII. ADMISSION CRITERIA, ENROLLMENT AND GRADUATION .....</b>	<b>24</b>
A. Admission requirements.....	24
B. Projected enrollment .....	25

C. Graduation requirements .....	27
IX. FACULTY .....	28
A. Faculty Profile .....	28
B. Faculty Development .....	30
X. PROGRAM ADMINISTRATION .....	31
X. INFORMATION RESOURCES .....	32
XIII. Student Support Services .....	34
A. Services to support students.....	34
B. Financial assistance .....	36
XIV. CATALOG AND DISSEMINATION .....	39
XV. BUDGET.....	39
XVI. ASSESSMENT AND EVALUATION PLAN .....	41
XVII. DEVELOPMENT PLAN.....	42
XVIII. ADDITIONAL INFORMATION .....	46
XIX. REFERENCES.....	46
XX. APPENDIX.....	48
<b>Appendix A</b> – Alignment of courses with required skills and competencies.....	49
<b>Appendix B.</b> Curriculum Vitae of professors in the proposed MSND with supervised experiential learning .....	61

## List of Abbreviations and Definitions

ACEND Accreditation Council on Education in Nutrition and Dietetics

BRFSS Behavioral Risk Factor Surveillance Survey

CBE Competency-Based Education

CDR Commission on Dietetic Registration

DI Dietetic intern

DPD Didactic Program in Dietetics

FEM Future Education Model

FG Future Graduate Program in Nutrition and Dietetics

FT Full time

LND Licensed Nutritionist and Dietitian

MS Master of Science

MSND Master of Science in Nutrition and Dietetics

PT Part time

Preceptor, a licensed nutritionist and dietitian in Puerto Rico

RDN Registered Dietitian Nutritionist

SEL Supervised Experiential Learning (refers to supervised practice in a practice site)

## I. INTRODUCTION

### A. Name of the program and academic degree to be conferred

The Nutrition and Dietetics Program at the College of Natural Sciences of the Río Piedras Campus proposes the creation of a Master of Science in Nutrition and Dietetics (MSND).

### B. Program Description

The Master of Science in Nutrition and Dietetics will be an online program that integrates a Master of Science degree along with the 1,000 hours of supervised and alternate experiential learning (SEL) hours required to become eligible to take the Registered Dietitian Nutritionist (RDN) Exam and local licensure exam. The experiential learning hours will consist of 280 hours of alternate experiential learning embedded in required courses and 720 hours equivalent to 8 credits of supervised experiential learning that must be completed in a practice site. The Program will follow a Competency-Based Education (CBE) model that is being proposed by the accrediting agency, Accreditation Council on Education in Nutrition and Dietetics (ACEND) that integrates didactic education with supervised experiential learning.

The Nutrition and Dietetics Program, under the College of Natural Sciences at the Río Piedras Campus (RPC) of the University of Puerto Rico (UPR) has requested ACEND to be part of the fifth cohort of demonstration programs under the Future Education Model (FEM) that will serve as model programs of this competency-based education. FEM demonstration programs will have access to CBE support materials from ACEND, along with online and in-person training on CBE and competency assessment. In addition, demonstration programs and their organizations gain national recognition as leaders and early adopters. As a demonstration program, ACEND waives fees for candidacy application and a one-year accreditation fee.

Proposed Academic Program:

Master of Science in Nutrition and Dietetics (MSND)

IPED classification: 30.1901 Nutrition Sciences

### C. Non-conventional modalities

The proposed graduate program will offer more than 50% of the curriculum in an online format since all didactic courses will be offered online. Only the 720 hours (8 credits) of experiential learning will be provided in practice sites. The program will utilize the infrastructure of the Division of Continuing Education and Professional Studies (DECEP, by its Spanish name) to develop the necessary conditions to offer an educational experience of excellence in this modality.

### D. Starting date

The program is intended to start in August 2022.

### E. Length of the program and maximum time for completion

The Master of Science in Nutrition and Dietetics with supervised experiential learning will start in August 2022. Full time students should complete the program in two years or four semesters and one summer. Following statutes established in Certification 95 from 2019-2020 by the Academic Senate, the student must complete the degree in a maximum time of 5 years.

## II. PROFESSIONAL ACCREDITATION AND PRACTICE REQUIREMENTS

### A. Professional Accreditation

The Master of Science in Nutrition and Dietetics with supervised experiential learning will operate under the Accreditation Council on Education in Nutrition and Dietetics, Future Graduate Demonstration Programs. Under this classification, the Nutrition and Dietetics Program has requested to be part of ACEND's fifth cohort of demonstration programs and will receive training and guidance for program implementation.

Demonstration programs will gain recognition as early adopters and participate in the network of educators that implement the Future Graduate Model allowing ACEND to collect data on these programs to determine effectiveness of the new education model. During the month of March or April of 2021, ACEND will communicate with those programs that will become part of the fifth cohort of demonstration programs.

As of this writing, no other program in Puerto Rico (PR) is part of ACEND's demonstration program or provides any type of graduate didactic education integrated with supervised experiential learning. There are two graduate programs in nutrition and dietetics in the Island:

1. Master of Health Sciences with specialty in Nutrition – Medical Sciences Campus – University of Puerto Rico
2. Master of Science in Nutritional Sciences – Gurabo Campus - Ana G. Méndez University

None of the above-mentioned graduate programs are accredited or susceptible to accreditation by ACEND as the only graduate programs that can be accredited by ACEND are those that integrate the supervised practice component with the didactic graduate education. The proposed program will seek accreditation from ACEND as it will integrate the supervised



experiential learning component. In Puerto Rico, the MSND will be the only graduate program in nutrition and dietetics accredited by ACEND.

The existing undergraduate Nutrition and Dietetics Program has been accredited by ACEND as a Didactic Program in Dietetics (DPD) since 1999 and since 1976 under ACEND's former title of Commission on Accreditation in Dietetics Education. The Program is currently fully accredited by ACEND until June of 2028 with a progress report and review in March of 2023.

The proposed graduate program is also expected to impact the pass rate for the RDN Exam as the graduates of the undergraduate program will have the opportunity to apply for the Future Education Model Graduate Program and be eligible to take the RDN Exam upon graduation. These students will benefit from having completed graduate studies that can make them better prepared for the RDN Exam. Future curricular developments plans include to convert the academic offering as a seamless joint degree where students may be admitted to the undergraduate program to continue onto the graduate and complete professional requirements. This will also improve the Program's and institutional retention and graduation rate.

## B. Professional Requirements

Graduates of the Master of Science in Nutrition and Dietetics with a supervised experiential learning will be eligible to take the RDN Exam and the local licensure exam to practice as a Nutritionist and Dietitian (LND) in Puerto Rico as required by Law 82 of 1972 and amended in 2004. While PR Law 82 of 1972 does not require a graduate degree to take the local licensure exam, the Commission on Dietetic Registration (CDR) approved in 2012 that beginning on January 1<sup>st</sup> of 2024, a graduate degree will be required to take the RDN Exam. It is also expected that amendments to PR Law 45 of 2004 being considered, will require a graduate degree for the local licensure and require the RDN Exam instead. Therefore, students that complete the undergraduate nutrition and dietetics program will need to finish both a

supervised experiential learning and graduate degree in order to take the RDN Exam to be able to practice as a nutritionist and dietitian in PR and United States.

Graduates of the Master of Science in Nutrition and Dietetics will receive a competency-based education that will integrate theory and practice to prepare nutrition and dietetics professionals equipped to serve in the community, clinical and administrative positions of nutrition and dietetics. Graduates may also choose to continue to doctoral programs and pursue positions in academia and research.

### III. JUSTIFICATION

According to the U.S. Bureau of Labor Statistics, employment for Nutritionists and Dietitians is expected to increase 11% by 2028. This increase is considered to be much faster than the average growth of employment in other professions. At the same time, the educational model to prepare these health professionals is evolving and the entry-level degree for the profession will change from a Bachelor's degree and a supervised practice to also require a master's degree effective on January 1<sup>st</sup> of 2024 to be eligible to take the RDN Exam. Therefore, once an individual completes a bachelor's degree, they must apply for a Supervised Practice Program and complete a master's degree afterwards. However, the proposed program will integrate both the master's degree with supervised experiential learning hours to facilitate eligibility to take the RDN Exam and local licensure. This educational model is being endorsed by ACEND and fifteen programs are currently serving as demonstration programs of this model that have begun admitting students.

More than 80% of the 1,219 licensed Nutritionists and Dietitians in the Island are University of Puerto Rico (UPR) graduates since it wasn't until 2003 when a coordinated undergraduate program was established and accredited by ACEND in the University of Ana G. Méndez (UAGM). At present, a total of 28 positions are available for graduates of an accredited bachelor's degree program to complete a supervised practice program in Puerto Rico, each year. However, the number of applicants to these programs is always greater as more than 25

students graduate each year, graduates from previous years that were not able to obtain a position reapply and graduates from other programs in the US also apply to these programs. Without completing a supervised practice program or a master's degree in nutrition, graduates are unable to sit for the local licensure exam or the RDN Exam. The need for Nutritionists and Dietitians in Puerto Rico is underscored by the high prevalence of chronic health conditions among the population. As of this writing, 69.8 percent of the population is overweight or obese, 15.5 percent have diabetes and 10.4 percent have some type of cardiovascular disease (BRFSS, 2018). These are all conditions that can be prevented or managed by modifying eating habits and following individualized meal plans prepared by licensed Nutritionists and Dietitians to improve overall health.

After the US Congress passed the Health Reform Act of 2010, the inclusion of preventive services and provision of a public health fund paved the way for growth and opportunities for health promotion and disease prevention services that can be offered by Registered Dietitian Nutritionist (Shaw, Asomugha, Conway, & Rein, 2014). The Academy of Nutrition and Dietetics published a Visioning Report in 2017, where they identified change drivers for the profession. These change drivers are expected to create new opportunities of professional practice. For example, the aging population and the interest in nutrition and foods has created a need for the RDN in the Patient Centered Medical Home and jobs in the food sector such as supermarkets and worksites (Kicklighter et al., 2017). The growth in the profession and new job opportunities underscores the need to facilitate the development of Registered Dietitian Nutritionist, yet data still reflects a shortage of practice sites for students to complete their educational requirements (Thompson & Gutschall, 2015). As mentioned above, only 28 positions are currently available in PR for graduates of an undergraduate program in nutrition and dietetics to complete the supervised practice hours. The MSND with supervised experiential learning will provide the opportunity for graduates to complete their preparation to become Nutritionists and Dietitians in PR.

## IV. RELATION OF THE PROGRAM WITH THE INSTITUTION'S STRATEGIC PLAN

### A. Relation with the mission, UPR Strategic Plan and unit plan

The mission of the College of Natural Sciences is to contribute to the intellectual and humanistic formation of professionals in diverse areas of scientific inquiry. An integral part of this mission is the search for truth through investigation, which can lead to solutions for problems that affect humanity. Congruent with this mission the Master of Science in Nutrition and Dietetics aims to provide the intellectual and humanistic formation in diverse areas of scientific inquiry and be eligible to become Registered Dietitian Nutritionist qualified to offer educational, administrative and clinical services in medical nutrition therapy and in the management of foodservice systems.

The Program's mission statement is specific to nutrition and dietetics and is rooted in the College's mission that emphasizes the education of the individual as a process that includes not only knowledge requirements but also one that fosters the use of that knowledge to benefit society. Inherent to the education process, is the importance to encourage students to recognize their social responsibility described in the mission of the Río Piedras Campus. The graduate program's mission acknowledges the diverse areas of specialization among Nutritionists and Dietitians and how these areas are developed within a humanistic formation that recognizes the importance of critical thinking and appreciation of esthetic and ethical values.

The MSND mission is aligned with the University's strategic plan of 2017-2022 by offering high quality and innovative programs that will generate professionals able to contribute and serve in the community (*Plan Estratégico 2017-2022, Universidad de Puerto Rico*). The proposed graduate program will contribute to each of the core values identified in the UPR's strategic plan such as:

1) **Institutional innovation** – the MSND will be part of a demonstration cohort of programs that will be a model for others in United States and PR. It will be the first online graduate program integrated with supervised experiential learning and using competency-based education that meets requirements for graduates to take the local licensure exam and RDN Exam.

2) **Institutional transformation** – the proposed graduate program will use resources efficiently by fostering institutional agreements with existing programs within the UPR. It will also integrate the use of technology and online learning tools and platforms essential for an online program to ensure a positive student academic experience.

3) **Student success** – Graduates of the MSND will have completed a graduate degree and a supervised experiential learning hour required to take the local licensure exam and the RDN Exam. The competency-based education that will be used in the MSND provides an individualized assessment of each student to ensure competencies needed for professional practice are met, thus, contributing to the academic success and professional preparation of the students.

Similarly, the MSND is aligned with the strategic plan of the Rio Piedras Campus of 2018-2023 (Certification 79 of 2017-2018). In particular, with Goal 2.1, by creating an online graduate program that responds to professional and societal needs.

## B. Relation of the current academic offer with others inside and outside of the UPR

The Master of Science in Nutrition and Dietetics will be the only program of its kind within the UPR system and in the Island. While the UPR Medical Sciences Campus offers a graduate program with a specialty in Nutrition, its focus is on Public Health and does not integrate the supervised experiential learning component required to be eligible to take the RDN Exam.

Students eligible to apply to the MSND include graduates from the undergraduate Nutrition and Dietetics Program as well as graduates from other science degrees interested in pursuing nutrition and dietetics. Those with an undergraduate degree from other fields of science will need to complete additional courses prior to admission as specified in section VIII B.

## IV. CONCEPTUAL FRAMEWORK

### A. Mission

The mission of the Masters of Science in Nutrition and Dietetics with supervised experiential learning is to provide the intellectual and humanistic formation in diverse areas of scientific inquiry and be eligible to become Registered Dietitian Nutritionist qualified to offer educational, administrative and clinical services and in the management of foodservice systems.

### B. Program goals, objectives and graduate profile

The proposed MSND has established two program goals described below:

1. Prepare well-qualified graduates to become Registered Dietitian Nutritionist and contribute to the overall well-being of the population in a variety of settings or related fields.
2. Prepare graduates for successful future endeavors in nutrition and dietetics within a culturally diverse society and for research and problem solving to advance human nutrition and health in a variety of settings.

The objectives of the Master of Science in Nutrition and Dietetics with supervised experiential learning include those that are required by the accrediting agency as well as program specific objectives.

1. At least 80% of program graduates complete program within 3 years (150% of the program length).

2. Of graduates who seek employment, 75 percent are employed in nutrition and dietetics or related fields within 12 months of graduation.
3. Seventy percent of program graduates take the RDN Exam for dietitian nutritionists within 12 months of program completion.
4. The program's one-year pass rate on the RDN Exam for dietitian nutritionist is at least 80 percent.
5. The Program one-year pass rate on the local licensure exam for dietitian nutritionists is at least 80%.
6. Eighty percent of graduates who answer the Graduate's Survey will rate the overall preparation in nutrition and dietetics as satisfactory or above.

Upon completing the MSND with supervised experiential learning, graduates will be able to demonstrate the competencies required by the accrediting agency as well as the learning domains established by the institution as part of the assessment of learning. Appendix A aligns the courses included in the MSND with the performance indicators established by ACEND that will demonstrate achievement of competencies among MSND graduates.

In addition, MSND graduates must demonstrate achievement of the learning domains set forth by the institution's office of learning assessment encompassed in the *División de Investigación Institucional y Avalúo*. The learning assessment plan for the MSND was combined to measure the 37 competencies required by ACEND as well as the six learning domains for graduate programs set forth by the University. **Table 1** illustrates the three-year learning assessment plan to measure the institution's learning domains and how they are aligned to at least one specific ACEND competency.

**Table 1.** Student Learning Assessment Plan for the Graduate Program in Nutrition and Dietetics

Learning domain	ACEND required competency	Course(s) or supervised practice in which the learning domain and competency is assessed	Assessment method(s) used to measure achievement of the competency
<b>1. Information Competencies</b>	Demonstrates computer skills and uses nutrition	1. Applied Nutrition Research	Research proposal or project

Learning domain	ACEND required competency	Course(s) or supervised practice in which the learning domain and competency is assessed	Assessment method(s) used to measure achievement of the competency
	informatics in the decision-making process. (1.13)	2. Research project	
<b>2. Effective Communication</b>	Uses effective communication, collaboration and advocacy skills. (7.2)	1. Ethics and Professionalism 2. Research project	Case Study or project
<b>3. Content of the discipline</b>	Applies knowledge of nutritional health promotion and disease prevention for individuals, groups and populations. (1.15)	1. Global Community Nutrition 2. Community Nutrition Supervised Experiential Learning	Design of a nutrition education session in the community for a target population.
<b>4. Research and creation</b>	Applies scientific methods utilizing ethical research practices when reviewing, evaluating and conducting research. (6.2)	1. Applied Nutrition Research 2. Research Project	Research proposal and project
<b>5. Critical thinking</b>	Incorporates critical thinking skills in practice. (6.1)	Foodservice management Foodservice management supervised experiential learning	Conduct and analyze a plate waste study and food cost analysis in a foodservice operation.
<b>6. Social responsibility</b>	Assumes professional responsibilities to provide safe, ethical and effective nutrition services. (7.1)	Ethics and Professionalism Clinical Nutrition supervised experiential learning	Development of a mentoring program, Discussion of case studies of ethical scenarios in professional practice.

The learning assessment plan incorporates direct and indirect measures that use standardized rubrics as objective and valid measures along with other assessment tools that have emerged in the educational research literature and aim to determine acquisition of knowledge. Rubrics are predominantly analytical, including various separate criteria to be evaluated and use four levels of indicators to rate performance on each criterion.



## C. Teaching Philosophy

Nutrition and Dietetics is an evidence-based health profession that encompasses three main areas of practice: community, clinical and management. Graduates are expected to have the skills necessary to practice in all areas of nutrition and dietetics. Thus, the MSND will provide academic experiences to prepare students for diverse working scenarios. Critical thinking skills and social responsibility are essential parts of this field and the didactic and experiential learning experiences will help enrich these skills among graduates.

The program will also follow the principles of competency-based education where the learning process is expected to occur at different levels among individuals. Therefore, learning outcomes are measured based on whether the student achieved the required competencies facilitating a link between theory and practice (Gervais, 2016).

## D. Coherence and sufficiency

The mission and objectives of the MSND are aligned with the Institution's and Campus's strategic plan and the mission of the College of Natural Sciences. The program objectives are aligned with the requirements set forth by the accrediting agency. The proposed program is aligned to meet accreditation standards while contributing to the mission and goals of the institution, campus and college.

The program's sufficiency is partly entrenched on the design of the competency-based education that integrates theory with practice and ensures students achieve required skills and competencies. Graduates of the Master of Science in Nutrition and Dietetics with supervised experiential learning in Dietetics will be eligible to take the Registered Dietitian Nutritionist Exam and the local licensure exam to practice as a Nutritionist and Dietitian in Puerto Rico as required by Law 82 of 1972 and amended in 2004. Therefore, curricular design was guided not only by the accrediting agency's standards and required competencies but by the professional requirements in Puerto Rico. As such, graduates of the MSND with supervised experiential

learning are equipped to serve in the community, clinical and administrative positions of nutrition and dietetics.

## V. CURRICULAR DESIGN

### A. Curricular design and balance

The curricular design integrates didactic with experiential learning using Competency-Based Education to be completed in two years. The curriculum is guided by the competencies and specific performance indicators defined by ACEND and aligned to the desired behaviors and job skills. The courses have been designed for graduates to be proficient in the three major areas of nutrition and dietetics: foodservice management, clinical nutrition and community nutrition and thus be able to hold positions in any area upon graduation.

The curriculum includes a research project course with the option of working to complete a research project that students must present at the end of the last semester of study or complete a thesis project. Student that chooses to complete a thesis project will work with a mentor and present an original research at the end of the last semester.

The proposed curriculum has a total of 45 credits that include 1,000 of supervised experiential learning provided in a practice site (720 hours = 8 credits) and alternate experiential learning that is provided within course content (280 hours) and can be completed in two years. Although the curriculum is designed to integrate supervised experiential learning hours, students that have already completed a supervised practice program accredited by ACEND can request to be exempt from the supervised experiential learning hours offered at practice sites. All courses will be offered online.

## 1. Curricular structure

The proposed curriculum is comprised of 45 credits where 8 of those credits are supervised experiential learning hours equivalent to 720 hours and 37 credits are academic courses. Each credit hour is equal to 6 hours of practice per week. Credits are distributed as follows:

**Table 2. Distribution of courses in the MSND with supervised experiential learning**

Core Courses			
Course code	Course Title		Credits
MATH 6686	Experimental Design and Advanced Data Analysis		3
NUTR 6XXX	Applied Nutrition Research		3
NUTR 6XXX	Nutrient metabolism		3
NUTR 6XXX	Ethics and professionalism		1
	Subtotal		10
Specialty Courses			
Course code	Course Title		Credits
NUTR 6XXX	Foodservice Management		3
NUTR 6XXX	Nutrition Assessment Diagnosis		3
NUTR 6XXX	Medical Nutrition Therapy and Pathophysiology		3
NUTR 6XXX	Nutrition Education and Counseling		3
NUTR 60XX	Global Nutrition		3
NUTR 6XXX	Pathophysiology of Life Span		3
NUTR 6XXX	Advanced Concepts in Nutrition		3
	Subtotal		21
Research project			
Course code	Course Title		Credits
NUTR 6XXX	Research project		1-3
	Subtotal		1-3
Supervised experiential learning			
Course code	Course Title	Contact hours (per semester)	Credits
NUTR 6XXX	Clinical Nutrition Supervised Experiential Learning	270	3
NUTR 6XXX	Community Nutrition Supervised Experiential Learning	180	2
NUTR 6XXX	Foodservice Management Supervised Experiential Learning	270	3
	Subtotal		8
Electives			
Course code	Course Title		Credits
n/a	Electives		3
	Subtotal		3
	Total		45

A description of each course is included in appendix A and course syllabi in a separate document.

## 2. Flexibility

The proposed curriculum is designed to facilitate completion of courses and supervised practice hours required for professional practice. Courses have been selected to meet competencies in an effective manner and using competency-based education. Courses that are identified as prerequisite aim to ensure the student has the foundational knowledge necessary to develop the skills and competencies in each area of nutrition and dietetics.

In addition, candidates who have completed an ACEND-accredited supervised practice program previously may choose to complete only the didactic portion of the proposed program. This option offers flexibility to prospective students that may only want to complete a graduate degree in nutrition and dietetics.

## 3. Balance

The total number of credits (45) is suitable considering the student will complete not only a graduate degree in science but also the supervised experiential learning hours they need to sit for the RDN Exam and local licensure. Comparable graduate programs in other institutions may have similar number of credits without offering the hours of supervised experiential learning. For example, the graduate program in Health Sciences with a major in nutrition, that is offered at the Medical Sciences Campus is composed of 53 credits but does not include the supervised experiential learning hours. Similarly, a comparison of graduate programs using the future education model in United States (**Table 3**) indicates the number of credits range from 39 to 68 credits to complete the degree.

**Table 3.** Comparison of total credits among Future Graduate Programs accredited by ACEND

Future Graduate Model Programs	Number of credits
Pennsylvania State University	39
Rutgers University – School of Health Professions	42
University of North Carolina at Chapel Hill	48
University of Nebraska Medical Center	50
Hunter College	53
University of Pittsburgh	60
The Ohio State University	65
Nova Southeastern University	66
Northern Arizona University	68

## B. Curricular Sequence

The MSND curricular sequence by semester of study is presented in **Table 4**. The first semester is designed to ensure the student is offered the foundational knowledge that will enable them to begin the first supervised experiential learning practice during the summer of the first year and second semester of the second year. However, within the courses, the student will complete a series of alternate experiential learning using case-studies and simulations that encompass the competency-based education. These experiential learning activities provide them with 280 hours where several of the competencies required by ACEND are included. The second year includes remaining specialization courses and supervised experiential learning that are completed in a practice site where students will be placed in diverse practice settings and a licensed nutritionist and dietitian serves as a preceptor. Each academic credit in the practice site is equivalent to 6 hours and will sum to a total of 720 hours of practice in a learning site as required by ACEND. During the second year, students will also complete a project or thesis depending on the student's preference and goals.

**Table 4.** Curricular sequence of the MSND

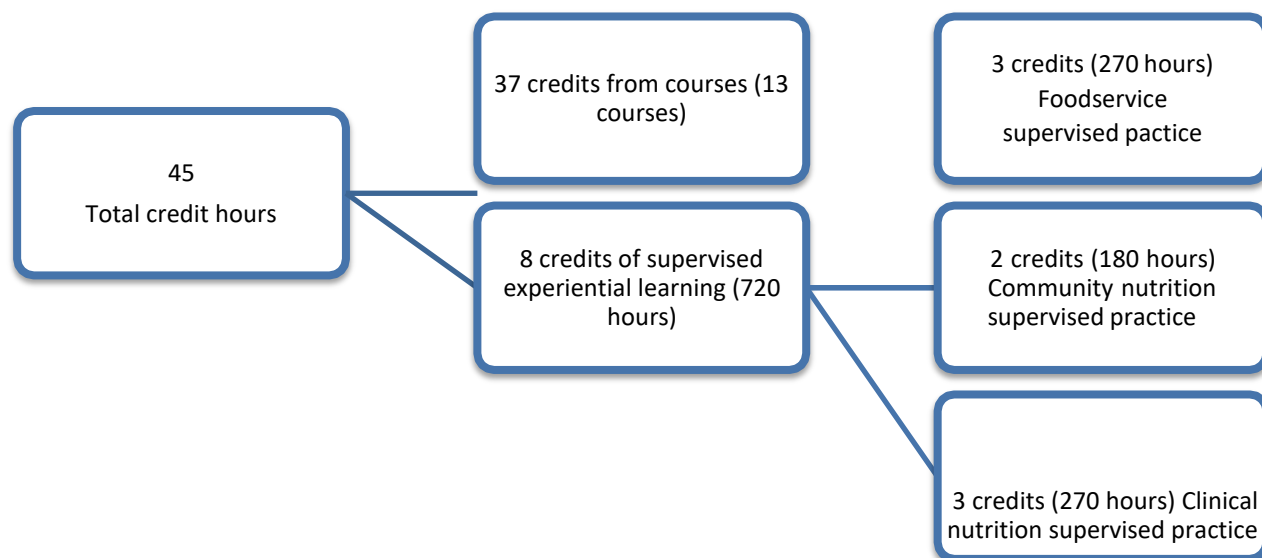
First Year				Summer		Second Year			
1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester					1 <sup>st</sup> Semester		2 <sup>nd</sup> Semester	
Courses	Cred.	Courses	Cred.	Course	Cred.	Courses	Cred.		
Biostatistics/ Data Analysis	3	Medical Nutrition Therapy and Pathophysiology	3	<u>Supervised experiential learning:</u> Clinical Nutrition*(34 hours/wk.)	3	Research* project or Thesis	3/1 per semester maximum of 4	<u>Supervised experiential learning:</u> Community Nutrition* (12 hours/wk.)	2
Applied Nutrition Research	3	Pathophysiology of Life Span	3			Global Community Nutrition	3	<u>Supervised experiential learning:</u> Foodservice Management (18 hours/wk.)	3
Nutrient Metabolism	3	Nutrition Education and Counseling	3			Foodservice Management	3	Electives	3
Ethics and professionalism	1	Nutrition Assessment and Diagnosis	3			Advanced Concepts in Nutrition	3		
Total	10		12		3		10-12		8

\*Each academic credit of supervised experiential learning is equal to 6 hours per week.

**Total credit hours:** 45 credits (37 from courses + 8 of supervised experiential learning)

The Program has a total of 45 credits that include the required courses, elective course(s) and the supervised experiential learning hours. Figure 1 illustrates the composition of the curriculum divided by courses and supervised experiential learning hours.

**Figure 1.** Credits from courses and supervised experiential learning structure of the MSND



### C. Curricular coherence and sufficiency of the coursework

The curricular sequence will allow students to build their knowledge and demonstrate their skills in the classroom by simulation and supervised experiential learning in a practice setting. This will ensure students meet the required competencies set forth by the accrediting agency and be eligible to sit for the RDN and local licensure exams. Courses are positioned each semester to allow students to have the foundation knowledge before entering supervised experiential learning at a practice site. The supervised experiential learning practice will provide the opportunity to integrate knowledge and translate this to practice. Sufficiency of the course work is demonstrated in Appendix A where each required competency set forth by ACEND is aligned to a course or supervised experiential learning experience.

## D. Educational methods

The courses will include a combination of educational methods to ensure students meet required knowledge and competencies. Since the program will use competency-based education, many educational methods will be used to allow assessment of whether the student mastered each competency.

Methods will include the traditional conferences that encourage discussion, cooperative learning to improve working in a team, case studies, videoconferences, among others. Simulations that depict a real scenario for students to practice counseling techniques and medical nutrition therapy will allow teaching and measurement of several competencies in the classroom. A total of 720 hours will be provided by experiential learning as students will be assigned to various practice sites. The number of hours of experiential learning was determined by the time necessary to achieve the competencies set forth by the accrediting agency and accreditation standards. The supervised experiential learning will provide the real scenario for professional practice.

Potential collaborations with the University of Pittsburgh may exist to offer courses using a team-teaching approach. This may be feasible under the *Nutri-Vías* project funded by USDA to create collaborations with other nutrition and dietetics programs. ACEND standards for Future Education Model Programs integrated a supervised practice component that require institutional agreements among hospitals, foodservice systems and community programs that provide nutrition services. Students will practice in these locations to meet the required competencies established by the accrediting agency that cannot be achieved using simulations or distance education.

## E. Syllabi of Courses

Syllabi for each course are included as a separate document.



## VIII. ADMISSION CRITERIA, ENROLLMENT AND GRADUATION

### A. Admission requirements

The Graduate Future Education Model, as designed by the accrediting agency, allows admission of students that completed their undergraduate degree in disciplines other than nutrition and dietetics. The Competency-Based Education principle of this educational model enables students to develop the necessary competencies for practice and successful passing of the RDN Exam. However, the MSND will admit students with a bachelor's degree in Nutrition and Dietetics in harmony with the Puerto Rico licensure requisite for professional practice. Puerto Rico Law 82 of 1972, requires a bachelor's degree in Nutrition and Dietetics from a Program accredited by ACEND to be eligible to sit for the local licensure exam. In 2016, Resolution #2016-01 from the Puerto Rico Board of Nutritionists and Dietitians (*Junta Examinadora de Nutricionistas y Dietistas de PR*) was signed and allows a graduate that successfully passes the RDN Exam to request the local licensure Board to waive the requisite of the local exam and be granted permission to work as a licensed nutritionist and dietitian.

The first two years of admission to the Program, will require applicants to have an undergraduate degree in nutrition and dietetics. This will facilitate assessment of program objectives and RDN Exam pass rate among a cohort in equal conditions upon admission. Admission requirements for students with an undergraduate degree in nutrition and dietetics, a degree in science-related fields and a degree in a field not related to science are detailed below.

#### Admission requirements for students with a bachelor's degree in nutrition and dietetics:

- Cumulative Grade Point Average equal or greater than 3.0
- Grade Point Average equal or greater than 3.0 in science and math courses
- Three letters of recommendation for students that did not graduate from the UPR-RP Bachelor's Degree in Science in Nutrition and Dietetics.
- One personal statement

- For students whose English is a second language, must obtain a minimum score of 550 in TOEFL exam (paper-based) or 213 (computer-based). Exam must have been taken no more than three years prior.

Admission requirements for students with a bachelor's degree in science other than nutrition and dietetics:

- In addition to the requirements for a student with a bachelor's degree in nutrition and dietetics, they must have approved with C or more the following undergraduate courses or their equivalent:

Course code	Course title
NUTR 4041	Human Nutrition I
NUTR 4045	Applied Human Nutrition
NUTR 4031	Food Science
NUTR 4055	Food Purchasing for Foodservice Systems
NUTR 4068	Layout, Design and Equipment Purchasing for Foodservice Systems
NUTR 4086	Menu for Foodservice Systems
NUTR 4042	Human Nutrition II
NUTR 4169	Applied Clinical Dietetics

Admission requirements for students with a bachelor's degree in fields not related to science:

- In addition to meeting the requirements listed for a student with a bachelor's degree in nutrition and dietetics or other science-related fields, they must have approved with C or more the following undergraduate courses: MATE 3171-72 Pre-calculus, QUM 3001 General Chemistry I-II, BIOL 3101-2 General Biology I-II, NUTR 4158 Human Biochemistry and NUTR 4159 Human Biochemistry laboratory.

## B. Projected enrollment

The MSND will have an enrollment goal of 25 students. An initial enrollment of fourteen (14) students is expected for the first year and increase gradually. There will be a constant influx of candidates from the following sources: 1) graduates of the bachelors program each

year 2) graduates from previous years that have not been able to enter a supervised practice program, 3) graduates from bachelor's programs in the US that must complete a supervised practice and master's degree requirement to become RDN and, 4) those interested in completing a master's degree in nutrition and dietetics.

Every year, approximately 25 students graduate from the bachelor's program that must apply to a supervised practice or a graduate program in order to meet requirements for licensure. Since there are only 28 available positions for supervised practice in PR, an average of 8-10 students are unable to secure a position upon graduation. While students may also apply to supervised practice programs in the US, the number of positions for supervised practice is also less than the number of students graduating in the states. Data published by the company that conducts the digital matching for candidates to supervised practice programs has published the percentage of candidates that are not matched to a program each year (**Table 5**).

**Table 5.** Percentage of graduates of undergraduate programs in nutrition and dietetics that are not matched to a supervised practice program from 2016-2020.

		2016	2017	2018	2019	2020
Number of openings	USA	3,389	3,568	4,043	n/a	n/a
	Puerto Rico	30	20	18	18	18
Number of applicants	USA	5,944	5,494	5,292	n/a	n/a
	Puerto Rico	31	43	33	28	26
Applicants matched	USA	2,823	3,026	3,248	n/a	n/a
	Puerto Rico	23	22	14	12	17
% Unmatched	USA	53	45	39	n/a	n/a
	Puerto Rico	26	49	58	57	35

Data suggests there is a consistent reduction in unmatched students since 2016 in the US, however, the percent of unmatched students has increased in PR. This is the result of a decrease in the number of positions available. In 2017, one of the three supervised practice programs lost its accreditation and had to close. Every year, between 26-57% of students are

left without the possibility to complete a supervised practice program until the following semester, for some programs, or the following year when they can apply again. Some of these students opt to begin a master's degree in Nutrition, since the local licensure allows this as a substitute for a supervised practice program to take the local licensure exam. Given this data, it is expected to have a demand of approximately 8-20 students from the bachelor's program each year that can choose to apply to the Future Education Model Master of Science in Nutrition and Dietetics with the supervised practice integrated in its curriculum.

In addition, graduates from other undergraduate programs in the US can apply to the MSND at UPR to fulfill the professional requirements to become Registered Dietitians. As a demonstration program under ACEND, the MSND will be recognized as an early adopter of the Future Education Model proposed by ACEND. Moreover, beginning January 1<sup>st</sup> of 2024, the entry level for Registered Dietitians requires the completion of a supervised practice and the master's degree. As of this writing, there are 305 Registered Dietitian Nutritionist in Puerto Rico.

### C. Graduation requirements

Students who complete the 45 credits with a minimum grade point average of 3.0 or more and completed the supervised experiential learning practice hours will be recommended to the Office of the Registrar to be granted the degree and will receive a Verification Statement after the Office of the Registrar confirms completion of requirements. Supervised experiential learning practice hours will be assessed with a Pass or Fail rating where a passing grade must be equivalent to a good or excellent rating of their performance in the practice site by the preceptor. Even though the Program's objective is for students to complete the degree within 150% of the (3 years) to meet accreditation standards, institutional policy allows up to five years from the time of admission for a full-time student in accordance with Certification Num. 95 (Academic Senate, 2019-2020).

## IX. FACULTY

### A. Faculty Profile

**Table 6.** Faculty profile for the UPRRP – Master of Science in Nutrition and Dietetics (MSND)

Name	Highest Degree Earned - Institution giving the degree and Year	RANK	Type of Academic Appointment	UPR Campus, Department and Unit of work	Years of experience in this Institution (UPRRP)	Courses taught or that may teach	Additional tasks currently assigned other than teaching
Correa Matos, Nancy	PhD, Nutritional Sciences, University of Illinois, 2006	Associate Professor	FT/T	UPR-Rio Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	3	Nutrition Metabolism, Medical Nutrition Therapy and Pathophysiology, Nutrition Assessment and Diagnosis	Co-Director of USDA-funded project
Fernández Hernández, Nivia A.	EdD, College of Education, UPR, 2000	Professor	FT/T	UPR-Rio Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	34	Ethics and Professionalism, Supervised Practice in Foodservice management, Foodservice Management	Assistant Academic Dean of Graduate Studies
Mir Franqui, Celia	EdD, University of Central Florida, 1990	Professor	FT/T	UPR-Rio Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	44	Global Nutrition, Ethics and Professionalism, Nutrition Education and Counseling	n/a
Pinto López, Elsa	PhD, Florida International University, 2007	Professor	FT/T	UPR-Rio Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	11	Applied Nutrition Research, Nutrition Education and Counseling, Ethics and Professionalism, Advanced Concepts in Nutrition	Didactic Program in Dietetics Director, Learning Assessment Coordinator, Academic Advisor
Rivera Sánchez, Sasha	PhDc, Universidad Autónoma de Barcelona	Instructor	FT/C	UPR-Rio Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	16	Foodservice Management, Ethics and Professionalism, Supervised Practice in Foodservice	
Toro Enríquez, Brenda	PhD, Kansas State University, 2005	Professor	FT/T	UPR-Rio Piedras Campus, College of	17	Foodservice Management, Supervised Practice in	Director, Nutrition and Dietetics Program

Name	Highest Degree Earned - Institution giving the degree and Year	RANK	Type of Academic Appointment	UPR Campus, Department and Unit of work	Years of experience in this Institution (UPRRP)	Courses taught or that may teach	Additional tasks currently assigned other than teaching
				Natural Sciences, Nutrition and Dietetics Program		Foodservice, Ethics and Professionalism, Advanced Concepts in Nutrition	
Schelske-Santos, Michelle	PhD, Tufts University, 1996	Professor	FT/T	UPR-Rio Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	22	Nutrient Metabolism, Ethics and Professionalism, Advanced Concepts in Nutrition	Director, USDA-funded projects
Vicens Meliá, Lizette	EdD, Columbia University, 1986	Professor	PT/Contract	UPR-Rio Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	16	Medical Nutrition Therapy and Pathophysiology, Nutrition Assessment and Diagnosis	n/a
Alicia Díaz Boulon	EdD, Inter American University, 2018	Assistant Professor	FT/T	UPR- Medical Sciences Campus, College of Health Professions	13	Supervised Practice in Foodservice Management	Director, Dietetic Internship Program
Carmen Pérez	DrPH, University of Puerto Rico, Medical Science Campus, 2017	Contract	Contract	UPR-Rio Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	8	Global Nutrition, Advanced Concepts in Nutrition, Ethics and Professionalism	n/a
María Egleé Pérez	PhD, Universidad Central de Venezuela, 1994	Professor	FT/T	UPR-Rio Piedras Campus, College of Natural Sciences, Math Department	16	Experimental Design and Advanced Data Analysis	Director, Math Department

\*(Full time- FT, Part- Time- PT)/ (Tenured -T, Tenured Track- TT, Contract- C)

## Faculty Academic Background

The full time (tenure track and tenured) faculty members have a strong academic background and are actively participating in research areas of their choice. Our faculty has the academic background and expertise in the areas of food science, foodservice management, nutritional and clinical sciences and nutrition education, providing uniqueness from many other programs across the nation.

Faculty members are encouraged to publish their results in peer-reviewed venues, and to seek external funding to support their research projects. In addition, our faculty members are also involved in reshaping and improving the educational model offered by our program in order to provide students with a high-quality education.

The normal load of our faculty is nine credits for teaching and three credits for research. The faculty will be teaching 2 to 3 undergraduate courses and one to two graduate courses per year. This will allow the development of an active and very productive department in terms of not only academic endeavors but also in terms of research articles and external funding. However, it is important to note that our faculty has the additional load of student advising (three credits), accreditation (six credits) and assessment (three credits) and currently these duties have been performed as additional compensation on top of the regular load. In addition, one faculty member serves as Assistant Dean of Graduate Studies and two professors are responsible for USDA-funded projects. At least two additional tenure track positions and one non-tenured position is needed to address the graduate program needs since the standards of accreditation also require a Director of the program.

Curriculum vitae of each faculty member is included in Appendix C.

## **B. Faculty Development**

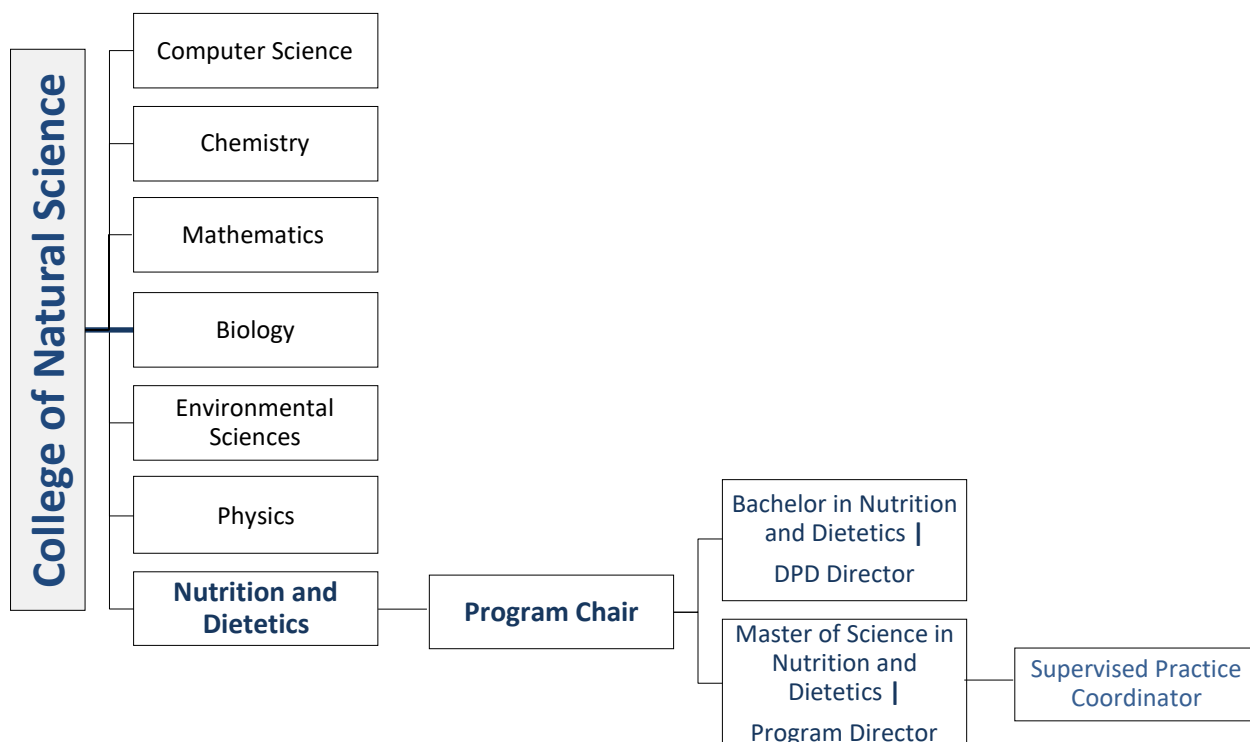
All licensed Nutritionists and Dietitians must complete 36 hours of continuing education every three years as established by law. In addition, to maintain the Registered Dietitian

Nutritionist credential requires completion of 75 hours every five years. Thus, professors of the MSND will continue to participate of continuing education requirements, professors that are not licensed will also continue to participate in annual conferences and events sponsored by local and international professional organizations. Travel funds for these conferences are available to professors with ongoing projects with external funds from organizations such as USDA. Other professors are commonly invited to participate at local educational events in appreciation of their ongoing commitment with the Board of Directors of organizations such as the *Colegio de Nutricionistas y Dietistas de PR* and the Puerto Rico affiliate of the Academy of Nutrition and Dietetics.

## X. PROGRAM ADMINISTRATION

The Nutrition and Dietetics Program currently operates with one full time administrative assistant and one program assistant under contract for 30 hours a week. A faculty member has been assigned as Director of the Program with a 9-credit appointment during the semester to allow sufficient time to also teach two required courses from the undergraduate program. A Didactic Program Director is also a faculty member that dedicates 6 credits to the roles and responsibilities required by the accrediting agency. The proposed program will also have a Director responsible for the roles and responsibilities delineated by the accrediting agency with a 6-credit load. In addition, a supervised practice coordinator is necessary to assist students in their rotations at practice sites to complete the 720 hours of supervised experiential learning.





## X. INFORMATION RESOURCES

### *Library Staffing*

There are eight librarians, two of them with PhDs, there is a secretary and a coordinator for student services in the College of Natural Sciences. The facilities of the College Library are now part of the Center for Information and Technology (CITEC). It holds a building of three levels of approximately 35,000 square feet and a capacity to accommodate two hundred (200) seats and two hundred fifty thousand (250,000) volumes of books and magazines.

The bibliography collection includes two hundred thousand (200,000) printed volumes and various information resources in the fields of biology, physics and chemistry and is in the process of expansion in the areas of math, environmental science and computer science. It also contains approximately one thousand (1000) active subscriptions to professional journals, of which three hundred and sixty-six (366) titles are available in electronic and printed format and seventeen (17) subscriptions to specialized indexes in the disciplines of natural sciences in print and electronic format. Because of the breadth and depth of the development of their

collections, the library is regarded as the major natural sciences information resource in Puerto Rico and the Caribbean.

*Library Electronic Access.* The facilities have an infrastructure and electronic wire fence with wireless access in all its areas. The Library has its own website (<http://bcn.uprrp.edu>). Access to journals specific to the discipline of nutrition and dietetics include:

Journal of Nutrition Education and Behavior  
Ecology of Food and Nutrition  
Journal of Nutrition  
British Journal of Nutrition  
American Journal of Clinical Nutrition  
Annual Reviews of Nutrition  
European Journal of Clinical Nutrition  
Nutrition Reviews  
Critical Reviews in Food Science and Nutrition  
Journal of Nutritional Biochemistry

#### Supervised Experiential Learning Locations

Practice sites may include but are not limited to: units from University of Puerto Rico System such as the Agricultural Extension Services and Food Science and Technology Program, UPR Carolina Federico Trilla Hospital and other programs such as WIC and Head Start for pediatric rotations. In addition, collaboration agreements with *Hospital Auxilio Mutuo*, and *Hospital San* for the clinical and foodservice management supervised practice rotations may also be practice sites.

*Clinical rotations.* Students will develop their clinical skills in supervised rotations with the clinical dietitians and complete four weeks in clinical staff relief. Required core clinical patient populations include disordered eating, pediatrics, oncology, cardiology, critical care, and outpatient.

*Foodservice management rotations.* Rotation areas include compliance and security, human resources, catering, purchasing, clinical operations, food service operations, financial

operations, business operations, patient room services, production, and clinical services. Experiences typically include these two hospitals dietary department kitchens.

*Community rotations.* Include UPRM Extension Services, Food banks, Department of Health, Head Star, SNAP and WIC.

## XIII. Student Support Services

### A. Services to support students

A variety of electronic educational resources are available to students that are integrated in the learning activities of the DPD courses: Nutritionist Pro® is installed and available on five computers at the College of Natural Sciences' Information and Technology Center (CITec or library), to calculate the nutrient composition of menu cycles and assure they meet requirements for each type of menu.

Students also use a variety of online learning resources including: the USDA Food Composition Database (<https://ndb.nal.usda.gov/ndb/search/list>), the National Library of Medicine's National Center for Biotechnology Information (<https://www.ncbi.nlm.nih.gov/>), the Evidence Analysis Library (<https://www.andeal.org/>), the electronic Nutrition Care Process Terminology or eNCPT (<https://www.ncpro.org/>), and e-books, such as the Dietary Reference Intake series available at National Academies Press (<https://www.nap.edu/>). Access to the Nutrient Data System for Research (NDSR) is also provided to students who have been working on the student health profile research project.

Faculty received training and support from hands-on workshops, online modules, and online help desk. All faculty members completed the Campus teaching-on-line certificate offered by the Center for Academic Excellence.

The Deans of the College of Natural Sciences and the Library Committee have embraced efforts with the Program to strengthen learning materials including the collection of books, e-books, scientific journals, and other accreditation-related resources. A faculty member will

serve as Program liaison to the committee to assist in the development of the Nutrition and Dietetics collection.

Mentorship. A faculty member will be assigned to each admitted student as an academic mentor or advisor.

Academic counseling. The Program currently offers academic counseling services to its students through one of its faculty members. The academic advising primary purpose is to provide students support in the planning and execution of their academic careers in a way that they can complete it within a reasonable amount of time. Timely academic advising allows detecting problems early and allows for proper resolution before these problems adversely affects student's pursuit of the degree. Although academic counseling is available throughout the year, it becomes more important during the course selection that takes place at the beginning of the spring and the fall academic semesters. Therefore, each student is urged to meet with her academic advisor at least once a semester.

For professional counseling, students can visit the Department of Counseling for the Student Development (<http://dcode.uprrp.edu/>) at the Office of the Dean of Student Affairs which has qualified personnel and various counseling services.

Student Support Services:

Institutional Policies and Regulations: [http://procuraduria.uprrp.edu/?page\\_id=183](http://procuraduria.uprrp.edu/?page_id=183)

Administrative Technology Division: <http://www.uprrp.edu/dtaa/>

Unidad de Educación en Línea del Recinto de Río Piedras: <https://enlinea.uprrp.edu/estudiantes/>

Academic Calendar: [http://www.uprrp.edu/?page\\_id=851](http://www.uprrp.edu/?page_id=851)

Departamento de Consejería para el Desarrollo Estudiantil (DCODE): <http://dcode.uprrp.edu/>

Centro Universitario de Servicios y Estudios Psicológicos (CUSEP): <http://cusep.uprrp.edu/>

Oficina de Asuntos para las Personas con Impedimentos:

[http://estudiantes.uprrp.edu/?page\\_id=75](http://estudiantes.uprrp.edu/?page_id=75)

CITec / Library and Tutoring Services/College of Natural Sciences Library: <http://bcn.uprrp.edu/>

Student Ombudsperson: <http://procuraduria.uprrp.edu/>

Privacy of Academic Files:

[http://www.uprrp.edu/registrador/documentos/certificaciones\\_leyes/taller\\_buckley2006.ppt](http://www.uprrp.edu/registrador/documentos/certificaciones_leyes/taller_buckley2006.ppt)

### Housing

The University of Puerto Rico, Río Piedras, has 2 co-ed housing complexes for students. There are also private houses, dormitories or residences near the campus; the costs vary according to the number of persons in every room, available services and location. For more information, access <http://vivienda.uprrp.edu/>.

### Students' Organizations:

- 1) The *Círculo de Dietética* members are also members of the Academy of Nutrition and Dietetics. Program students host social and academic activities for nutrition and dietetics students and participate in community-based activities promoting healthy eating habits ([circulonutricionupr@gmail.com](mailto:circulonutricionupr@gmail.com)).
- 2) The Nutrition Journal Club serves as a resource to promote the pursuit of knowledge and help students being informed of the scientific advances and controversies in nutrition and dietetics. Students from the organization coordinate scientific article presentations, invite speakers and host informal conversations and debates on topics of utmost importance in direct relation to our profession. ([njcuprrp@gmail.com](mailto:njcuprrp@gmail.com); <https://www.facebook.com/njcuprrp/?fref=ts>).

## B. Financial assistance

The United States Department of Education grants federal aid so that students can pay for tuition and fees, lodging, transportation, books and other supplies. It can also help pay other related expenses, such as a computer and the care of dependents. As an initial step, the student must complete the Federal Financial Aid Application (FAFSA) every year.

Federal financial assistance:

- **TEACH Scholarships and for military services.** These scholarships have special participation requirements. For more information visit TEACH.

- **Federal loans with subsidy and without subsidy.** Direct Loan Program subsidized loans are available to graduate students in financial need. It is the educational institution responsible for determining the amount that the student can borrow. The loan conditions are somewhat better because the Federal Education Department is the one who pays the interest on the loan while the student is enrolled at least half time. The period to pay the loan is activated automatically 6 months after graduating, to stop studying or to enroll in a lesser academic load than required. On the other hand, unsubsidized loans from the Direct Loan Program are available to graduate students. The student is responsible for the payment of all interest. In this loan, it is not necessary to demonstrate economic necessity. As in the subsidized loan, the educational institution determines the amount the student can borrow based on the cost of the studies and other financial aid received. Students who participate in the Exchange Program of the University of Puerto Rico (UPR) can apply for federal loans.
- **PLUS loans.** These loans are available to graduate students who do not have a negative credit history. The amount of the maximum loan amount is the cost of the studies determined by the educational institution. For more information visit the PLUS loan page.
- **Study and work program.** This program provides part-time employment to graduate students in financial need. It is administered by educational institutions, so you must go to the Financial Aid Office to find out if you can participate in it.

State finance assistance:

The Government of Puerto Rico also has financial aid for students. Likewise, as an initial step, the student must fill out the Federal Financial Aid Application (FAFSA) every year.

- **Legislative Scholarship.** The legislative assistance program provides supplementary assistance to the eligible student at the undergraduate and graduate levels. It is a requirement to show economic necessity. Visit the Financial Aid Office for more information about this scholarship.

#### University financial assistance:

The Río Piedras Campus has several programs to help its students, among which are: *Jornal Work Program*. It provides the opportunity for students to work in the different units attached to the faculties up to a maximum of 20 weekly hours that are paid according to the prevailing federal minimum wage and subject to the availability of funds. Undergraduate and graduate students from the Río Piedras Campus who are enrolled in a regular study program leading to an academic degree are eligible. Interested students must present their resume, class schedule with evidence of payment, the student identification card and the social security card in the administrative office of the corresponding faculty.

*Proposals for External Funds.* A considerable number of the proposals that subsidize projects are accompanied by funds destined for students, either for journal work or teaching assistantship. Regularly the persons in charge of managing the proposals are the ones who invite students to work on their project.

*Private and non-profits organizations financial assistance.* They are granted by employers, individuals, private companies, non-profit organizations, communities, religious groups and professional and social organizations. They are granted in accordance with the requirements established by the donors themselves. You can use the free [scholarship search tool](#).

Questions related to scholarships and financial assistance must be made directly to the Financial Aid Program or to the Financial Aid Fiscal Office  
<http://asistenciaeconomica.uprrp.edu/>.

#### Professional Financial Assistance:

- a) The Academy of Nutrition and Dietetics Foundation provides dietetic scholarships and research grants to students and Academy members, respectively. Funding research is a priority for the Foundation, which provides the opportunity for individuals to continue making evidence-based contributions to the field of dietetics, food and nutrition. Students are the future of the field and the Foundation recognizes the importance of giving students a solid foundation to develop their dietetic careers and provide access to education. For more information

visit: <http://www.eatrightpro.org/resources/leadership/honors-and-awards/grants-and-scholarships>.

- b) The Academy of Nutrition and Dietetics (PR Chapter) offered scholarships to students in supervised practice. For more information visit <https://www.eatrightpr.org/becas-y-premios>

## XIV. CATALOG AND DISSEMINATION

The MSND will be featured in the accrediting agency's website as an early adopter of the Future Education Model. A searchable database for these programs will be automatically available for prospective students in the following webpage:

<https://www.eatrightpro.org/acend/accredited-programs/future-education-model-graduate-program>

Dissemination of the program's features, benefits and advantages for those that want to become Registered Dietitian will be published with the *Colegio de Nutricionistas y Dietistas de Puerto Rico*. Additional advertising venues will include social media and communication with graduates of the existing undergraduate nutrition and dietetics Program. It is important to note that graduates of other Nutrition and Dietetics Programs in the US have been applying to local Dietetic Internships in Puerto Rico. These students will reach our Program from the ACEND database and obtain detailed information about the MSND in the Program webpage at <http://natsci.uprrp.edu/nutricion/>.

## XV. BUDGET

The budget plan for the MSND identifies the costs of operation required to offer 45 credits and additional costs along with the income expected from tuition and fees of enrolled students. Also, the technological infrastructure of DECEP and other units of the Río Piedras Campus, will facilitate the necessary logistics and operational online and virtual conditions to offer an educational and formative experience of excellence.



Professors from the undergraduate program will offer at least one graduate course in the MSND per year. Therefore, the budget identifies these costs as additional compensation for professors that have a full academic load with the undergraduate courses. Recognizing the need for professors and, after consultations with the Office of Strategic Planning and Budget, the operation of the proposed program relies on full time contracts and maintaining the positions of two professors that retired in December 2020 and are identified as new recruitment in the budget form. The budget was calculated using \$180 cost per credit and is included as a separate document in an Excel file. The summary of costs and income of the Program is summarized in table 7 for the first cohort of 14 students that will gradually increase to 25.

**Table 7.** Summary of Costs and Income of the MSND Program

<b>Universidad de Puerto Rico</b> <b>Recinto de Río Piedras</b>  <b>Costos Estimados de la Propuesta Maestría Nutrición y Dietética</b> <b>Programa a Distancia con Componentes de Práctica Supervisada</b> <b>Facultad de Ciencias Naturales</b>						
	<b>Estimado de Costos</b>					
<b>Rengiones Presupuestarios</b>	<b>Año 1</b>	<b>Verano</b>	<b>Año 2</b>	<b>Costo Total</b>	<b>Costo Recurrente</b>	<b>Costo No Recurrente</b>
Cursos por Compensación	\$ 15,023.81		\$ 8,911.56	\$ 23,935.37	\$ 23,935.37	-
Cursos en Tarea Regular	\$ 15,762.55	12,258.14	\$ 24,516.28	52,536.97	\$ 52,536.97	-
Compensación Coordinar Programa	4,455.78	-	4,455.78	8,911.56	\$ 8,911.56	-
Coordinación Acreditación	4,455.78		4,455.78	8,911.56	\$ 8,911.56	-
<b>Nómina Subtotales</b>	<b>\$ 39,697.93</b>	<b>\$ 12,258.14</b>	<b>\$ 42,339.40</b>	<b>\$ 94,295.47</b>	<b>\$ 94,295.47</b>	<b>\$ -</b>
Materiales	\$ 1,500.00			\$ 1,500.00	\$ 1,500.00	
Acreditación			\$ 9,350.00	\$ 9,350.00	\$ 2,250.00	\$ 7,100.00
Compra o Reposición Equipos	750.00		750.00	1,500.00	\$ 1,500.00	
Mejoramiento Profesional				-		-
<b>Otros Gastos Sub totales</b>	<b>\$ 2,250.00</b>	<b>\$ -</b>	<b>\$ 10,100.00</b>	<b>\$ 12,350.00</b>	<b>\$ 5,250.00</b>	<b>\$ 7,100.00</b>
<b>Total Anual</b>	<b>\$ 41,947.93</b>	<b>\$ 12,258.14</b>	<b>\$ 52,439.40</b>	<b>\$ 106,645.47</b>	<b>\$ 99,545.47</b>	<b>\$ 7,100.00</b>
<b>Costo Total</b>					<b>\$ 106,645.47</b>	
<b>Ingresos de Matrícula - \$180 por crédito (a base de 45 créditos x 10 estudiantes)</b>					<b>\$ 105,840.00</b>	
<b>Ingresos de Cuotas - Mantenimiento \$75 y Tecnología \$25</b>					<b>\$ 3,000.00</b>	
<b>TOTAL INGRESOS ESTIMADOS</b>					<b>\$ 108,840.00</b>	
<b>Sobrante Estimado - ver nota</b>					<b>\$ 2,194.53</b>	
<b>Notas:</b> 1. Incluye los ingresos y los costos del nuevo programa por ser un Programa a Distancia que aspira a retener los ingresos para atender los costos del programa. 2. El sobrante estimado anual se distribuirá mediante un proceso de negociación entre el programa, la DECEP y el Recinto.						
OPEP - OCT. 2020						

## XVI. ASSESSMENT AND EVALUATION PLAN

Using the template for the program evaluation plan required by ACEND, Tables 8A-B describe program goals and objectives and the data collection procedures to measure if these are achieved. The undergraduate Nutrition and Dietetics Program systematically conducts data collection using student questionnaires, exit interviews, graduate survey and employer survey. Thus, the timeline of data collection for the MSND will follow a similar structure.

**Table 8A.** Evaluation Plan for the Graduate Program in Nutrition and Dietetics

Goal #1– Prepare well-qualified graduates to become registered dietitians and contribute to the overall well-being of the population in a variety of settings or related fields.

Objectives	Data Needed for Evaluation	Groups from which Data will be Obtained	Timeline for Collecting Data
1) At least 80% of program graduates in the non-thesis track, complete program within 3 years (150% of the program length).	List of graduates provided by the Registrar's Office	Registrar's office and <i>Departamento de Investigación Institucional y Avalúo</i>	Upon graduation of each cohort
2) At least 80% of program graduates in the thesis track, complete program within 5 years.	List of graduates provided by the Registrar's Office	Registrar's office and <i>Departamento de Investigación Institucional y Avalúo</i>	Upon graduation of each cohort
3) Of graduates who seek employment, 75 percent are employed in nutrition and dietetics or related fields within 12 months of graduation.	Graduate survey	Frequency of responses for each question	One year after graduation
4) Seventy percent of program graduates take the RDN Exam for dietitian nutritionists within 12 months of program completion.	Pearson Vue data reports	Analysis of reports sent to each program director	One year after graduation
5) The program's one-year pass rate on the CDR credentialing exam for dietitian nutritionist is at least 80 percent.	Pearson Vue data reports	Analysis of graduate's success in the RDN exam upon graduation	Every year

**Table 8B.** Evaluation Plan for the Graduate Program in Nutrition and Dietetics

Goal #2 – Prepare graduates for successful future endeavors in nutrition and dietetics within a culturally diverse society and for research and problem solving to advance human nutrition and health in a variety of settings.

Objectives	Data Needed for Evaluation	Groups from which Data will be Obtained	Timeline for Collecting Data
Eighty percent of graduates who answer the Graduate's Survey will rate the overall preparation in nutrition and dietetics as satisfactory or above.	Graduate survey	Analysis of graduate responses	Upon graduation of each cohort

## XVII. DEVELOPMENT PLAN

Following the assessment plan in tables 8A-8B, aimed to evaluate achievement of program goals and objectives, the following narrative describes projected enrollment, significant challenges expected, expected graduation rate and the detailed process towards obtaining candidacy of accreditation. A summary of this plan is presented in table 9, the development plan for the proposed program will be reviewed annually by the Director of the Nutrition and Dietetics Program and the MSND Director.

### **Projected enrollment**

An initial enrollment of 14 students is expected for the first two years to allow implementation and ensure quality and adequate use of resources. Recruitment activities will be focused on graduates of nutrition and dietetics program accredited by ACEND. However, licensed nutritionist and dietitians that have not taken the RDN Exam will be excellent candidates to be admitted to the Program as well.

### **Significant challenges**

The proposed program requires the support of practice sites and licensed nutritionists and dietitians to serve as preceptors of students during the supervised experiential learning. This challenge, to be able to establish collaboration agreements among preceptors and the institution they work, a coordinator of the supervised experiential learning will be hired to network with these practice sites and health professionals in order to offer the program to potential candidates. The coordinator under the supervision of the program director, will be ensuring collaborations with practice sites and preceptors are in place for student experiences.

The program also requires the recruitment of new professors to ensure courses and resources to operate. Potential collaborations are planned to aggregate resources from the University of Pittsburg for potential team-teaching modalities under a funded USDA project as well as professors from other UPR units.

### **Expected graduation rates**

The proposed program is designed to be completed in two years for a full-time student in a non-thesis track. One of the program objectives (see table 8A) is that 80% of students graduate in two years. To facilitate the expected graduation rate, admissions will be done every Fall semester to ensure cohorts progress along the curricular sequence at the same time. During recruitment, potential students will be advised about the importance of following curricular sequence that prepares them for supervised experiential learning during the first summer and fourth semester of study. Students that are unable to follow the curricular sequence with their cohort, have up to five years to complete the degree following institutional norms for graduate studies.

### **Accreditation**

The application to become part of the fifth cohort of demonstration programs was submitted to ACEND on December 2, 2020. A decision letter is expected to be received between March and April of 2021. Being chosen to be part of the fifth cohort requires the program director to participate in several trainings that will begin Fall 2021 and places the program under candidacy status for accreditation. Faculty and staff will benefit from receiving training and workshops offered by ACEND consultants and CBE experts to implement the education model. These trainings will also benefit students in the undergraduate degree as professors become skilled with this educational model. ACEND continues to guide demonstration programs during the implementation process and initial years as they collect data from each program to establish effectiveness of the new education model. The MSND is expected to become an alternative to all graduates from the bachelors and licensed nutrition and dietetics professionals that aim to be eligible for the RDN credential. The learning assessment plan and the alignment of each course to all competencies set forth by ACEND will

provide the data to indicate achievement of learning outcomes and competencies required to serve as a Nutrition and Dietetics professional.

### **New courses**

Most of the courses in the proposed program will be created with the exception of Experimental Design and Advanced Data Analysis (MATE 6686). A total of 14 courses will be created in which 3 of them comprise the supervised experiential learning in practice sites, a research project course and an ethics and professionalism module for students to complete independently. One course was designed in collaboration with an USDA-funded project that developed the Global Nutrition.

### **Annual conferences for faculty development**

Each year several professional conferences as part of their professional development continuing education requirements to maintain their credentials. In these conferences, faculty projects are customarily presented. The following is a list of some of these conferences:

- Food and Nutrition Conference and Expo
- Experimental Biology Conference
- Society of Nutrition Education and Behavior
- Puerto Rico Affiliate of the Academy of Nutrition and Dietetics Conference
- Annual Congress of the *Colegio de Nutricionistas y Dietistas de Puerto Rico*

The proposed program will also schedule conferences with invited speakers as this has been part of the activities in previous years within the undergraduate program.

### **Faculty evaluation**

Following institutional norms, professors will be evaluated by the students at the end of every course using the standardized tool used for the graduate program. Peer evaluation for tenure-track faculty will be scheduled once a year and at least once every two years for tenured professors.

**Table 9. Summary of Development Plan for the Master of Science in Nutrition and Dietetics with Supervised Experiential Learning**

Program objective	Timeline	Data needed	Individuals responsible
Projected enrollment <i>At least 14 students will be admitted in the first years</i>	Annually	Registrar's Office official data of program students	Director of the Nutrition and Dietetics Program and MSND Program Director
Agreements with practice sites <i>Collaboration agreements with at least 2 practice sites for foodservice, clinical and community scenarios will be maintained.</i>	Collaborations must be revised annually	Number of collaboration agreements	MSND Program Director and Coordinator of Supervised Experiential Learning
Accreditation <i>MSND will maintain candidacy status of accreditation during implementation of the program</i>	Annually	Official communications from accrediting agency	MSDN Program Director
Annual conferences for professional development <i>At least one invited speaker per year will be scheduled for faculty and student development</i>	Annually	Participation in activities	Director of the Nutrition and Dietetics Program and MSND Program Director
Faculty evaluations by peers	Tenured-track faculty: every year Tenured faculty: Every two years	Reports of evaluations	Director of the Nutrition and Dietetics Program
Faculty evaluations by students	Every semester	Results from standardized questionnaire	Director of the Nutrition and Dietetics Program and MSND Program Director
Informational resources <i>Resources of Nutrition Bioinformatics will be integrated in relevant courses</i>	Annually	Resources such as Protein Data Bank, Evidence Analysis Library and professional journals available for students and professors.	Director of the Nutrition and Dietetics Program and MSND Program Director

## XVIII. ADDITIONAL INFORMATION

Not applicable.

## XIX. REFERENCES

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Dietitians and Nutritionists, on the Internet at <https://www.bls.gov/ooh/healthcare/dietitians-and-nutritionists.htm> (visited February 06, 2020).

Bergsmann E, Schultes MT, Winter P, Schober B, Spiel C. (2015) Evaluation of competence-based teaching in higher education: From theory to practice. *Eval Planng*. 52:1-9.

Gervais, Jennifer. (2016). The operational definition of competency-based education. *The Journal of Competency-Based Education*, 10.1002/cbe2.1011.

Holmboe ES, Sherbino J, Long DM, Swing SR, Frank JR. (2010) The role of assessment in competency-based medical education. *Med Teacher*, 32:676-682.

Kicklighter, J. R., Dorner, B., Hunter, A. M., Kyle, M., Pflugh Prescott, M., Roberts, S., . . . Byrne, C. (2017). Visioning Report 2017: A Preferred Path Forward for the Nutrition and Dietetics Profession. *J Acad Nutr Diet*, 117(1), 110-127. doi:10.1016/j.jand.2016.09.027.

Shaw, F. E., Asomugha, C. N., Conway, P. H., & Rein, A. S. (2014). The Patient Protection and Affordable Care Act: opportunities for prevention and public health. *Lancet*, 384(9937), 75-82. doi:10.1016/S0140-6736(14)60259-2

Thompson, K. L., & Gutschall, M. D. (2015). The time is now: a blueprint for simulation in dietetics education. *J Acad Nutr Diet*, 115(2), 183-194. doi:10.1016/j.jand.2014.12.001.

Wascavage E. (2017) Competency-based education and its effect on nursing education: A literature review. *Org for Ass Degree Nursing*, 12(2):117-21.

### Links:

Academy of Nutrition and Dietetics <https://www.eatrightpro.org/acend/accreditation-standards-fees-and-policies/future-education-model>

Academy of Nutrition and Dietetics. Future Education Model Graduate Degree Competencies and Performance Indicators. <https://www.eatrightpro.org/-/media/eatrightpro->

[files/acend/futureeducationmodel/fem-graduatefinal.pdf?la=en&hash=2FB752C3D44E0D91E060EBCCEA5FE5851B5F2D42](https://files.acend/futureeducationmodel/fem-graduatefinal.pdf?la=en&hash=2FB752C3D44E0D91E060EBCCEA5FE5851B5F2D42)

University of Pittsburg. Curriculum, Dietitian Nutritionist Program.

<https://www.shrs.pitt.edu/ndms/curriculum>

University of Iowa, Epidemiology Courses. <http://catalog.registrar.uiowa.edu/courses/epid/>

Rutgers University. Entry-Level Master of Science in Clinical Nutrition.

<https://shp.rutgers.edu/nutritional-sciences/entry-level-master-of-science-clinical-nutrition/>

Tufts University. <https://nutrition.tufts.edu/academics/course/nutr-228>



## XX. APPENDIX

A. Required Competencies aligned with courses

B. Curriculum Vitae of professors in the MSND

## **Appendix A – Alignment of courses with required skills and competencies**

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
Applied Nutrition Research NUTR 6XXX (3)	NUTR 4198	Course content includes discussion of study design, research concepts and terminology associated with nutrition research methodology. A thorough understanding of the role of research in nutrition and dietetics practice and special emphasis on validity and reliability of instruments/measures and methods used in diverse areas of nutrition related research.	1.1.1 Analyzes the usefulness and limitations of epidemiological, clinical and other study designs and identifies trends in diet and disease. 1.1.3 Communicates epidemiological evidence related to the relationship between diet and the development of disease. 1.1.4 Demonstrates an understanding of research techniques and processes used to study the relationship between molecules (e.g., genes, proteins, metabolites) and microbes with disease states. 6.1.1 Considers multiple factors when problem solving. (D) 6.1.2 Incorporates the thought process used in critical thinking models. (D) 6.1.3 Engages in reflective practice to promote change and continuous learning. (D) 6.2.1 Identifies, explains and applies the steps of the scientific method and processes. (D) 6.2.2 Articulates a clear research question or problem and formulates a hypothesis. (D) 6.2.3 Identifies and demonstrates appropriate research methods. (D) 6.2.4 Interprets and applies research ethics and responsible conduct in research. (D) 6.2.5 Collects and retrieves data using a variety of methods (qualitative, quantitative) and technologies. (D) 6.2.6 Analyzes research data using appropriate data analysis techniques (qualitative, quantitative, mixed). (D) 6.2.7 Translates and communicates research findings and conclusions through a variety of media. (D)
Experimental Design and Advanced Data Analysis (3) MATE 6686	MATE 3026 or another introductory course of Statistics at undergraduate level	Multidisciplinary course where students will be introduced to the most used methods in experimental design and statistical data analysis and their application in Biology, Environmental Sciences, etc. Statistical software such as R will be used for applying this concepts and techniques in practice.	6.2.5 Collects and retrieves data using a variety of methods (qualitative, quantitative) and technologies. (D) 6.2.6 Analyzes research data using appropriate data analysis techniques (qualitative, quantitative, mixed). (D) 6.2.7 Translates and communicates research findings and conclusions through a variety of media. (D)
Ethics and Professionalism (1) NUTR 6XXX	NUTR 4225	Course topics include the Academy's Scope of Practice and Standards of Professional Practice to reinforce safe, current ethical and effective dietetics and nutrition services, legislative and regulatory issues at the state and federal level is addressed. Course will integrate opportunities to develop skills to form professional opinions based on current research, leadership, ethical decision making	5.1.1 Exhibits self-awareness in terms of personality, learning, leadership style and cultural orientation. (S) 5.1.2 Demonstrates understanding of social cues and team dynamics. (K) 5.1.3 Communicates at the appropriate level and understands emotions and emotional situations. (D) 5.1.4 Develops conversational and interpersonal skills. (D) 5.1.5 Reflects on situations and critically evaluates outcomes and possible alternate courses of action. (D) 5.1.6 Understands the mentoring role and practices mentoring and precepting others. (D) Planning

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
		and effective communication through debates, simulation, and roleplaying.	5.2.1 Establishes operational plan considering budget, inventory control, labor and regular daily tasks. (D) 5.2.2 Aligns plans with the organizational strategic plan, mission and vision. (D) Organizing 5.2.3 Assigns responsibilities to various team members according to scope of practice and personal competence. (D) 5.2.4 Sets and monitors clear targets for team members, departments and the organization aligned with common objectives and goals. (D) 5.2.5 Demonstrates an understanding of how individuals and groups interact within the organization. (D) 5.2.6 Takes into consideration individual and organizational culture and behaviors when planning and managing. (D) Management 5.2.7 Engages in, manages or leads human resource activities adhering to applicable legislation and regulations. (D) 5.2.8 Integrates change management theories and conflict resolution skills to manage and promote positive change. (S) 5.2.9 Uses persuasive communication skills to influence or produce a desired outcome during negotiations and conflict resolution discussions. (D) 5.2.10 Understands and respects roles and responsibilities of interprofessional team members. (D) Controls 5.2.11 Collects, understands and analyzes financial data to support fiscally
Foodservice Management Systems (3)  NUTR 6XXX	NUTR 4055 NUTR 4068 NUTR 4075 NUTR 4076 NUTR 4086	Description of the principles and skills essential in the foodservice industry.	1.3.2 Implements key principles and practices to make foods safe for consumption at all stages during the flow of food. 1.3.1 Applies food safety principles of microbiological food spoilage and strategies for controlling microbial growth. 1.6.1 Formulates food and nutrition services considering psychological and social factors to meet the needs of individuals, communities and populations. 1.10.3 Applies math skills to perform food and nutrition calculations. 2.1.1 Conducts or coordinates an assessment of the environment, competitive landscape and stakeholder opinions to identify and evaluate data needed to make decisions regarding nutritional products, programs and services. (D) 2.1.3 Creates a work plan or project plan to implement nutritional programs and services or launch products. (D) 2.1.4 Conducts an evaluation of a product, program or service by analyzing reasons for variance from expected outcomes and implements new strategies as appropriate. (D)

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
			<p>3.3.2 Incorporates the required safety and nutritional health policies and procedures in the organization's mission and policies. (D)</p> <p>3.3.3 Develops a plan to minimize vulnerabilities in the food supply chain. (D)</p> <p>3.3.4 Takes into consideration food allergies when preparing menus and foods. (D)</p>
<p>Global Nutrition (3)</p> <p>NUTR 6XXX</p>	NUTR 4176	<p>Fundamentals of health promotion and disease prevention using food and nutrition for individuals and communities, with emphasis on global populations, their cultures, and geopolitical contexts. Concepts and methods for community-based screening and research programs as evidence for developing, implementing, and evaluating public health nutrition policy through skill-building and participatory activities, as well as case studies of creative and innovative approaches to community nutrition around the globe.</p> <p>(Note: this course is part of a graduate certificate being developed under USDA NIFA Hispanic-Serving Institutions grant, Curricula, Research &amp; Technology: Capacity Building for Graduate Nutrition and Dietetics in PR; Dr. Michelle Schelske Santos, Project Director)</p>	<p>1.6.2 Articulates the impact of nutritional health on psychiatric disorders.</p> <p>1.6.3 Integrates knowledge of maximizing sustainability, food and water waste, reusable/biodegradable items, local and global produce sourcing and access to food.</p> <p>1.6.4 Analyzes the environmental factors affecting access to services and/or adequate nutrition.</p> <p>1.7.1 Demonstrates knowledge of the cultural competence models.</p> <p>1.7.2 Applies knowledge of foods, cultural foods, eating patterns and food trends.</p> <p>1.7.4 Identifies and implements strategies to address cultural biases and differences.</p> <p>1.7.5 Applies culturally sensitive approaches and communication skills.</p> <p>1.16.1 Examines the trends and current issues that impact public and global health from existing, new and reemerging diseases that spread through immigration, travel and global trade.</p> <p>1.16.2 Examines the impact of global food supply and sustainability and related factors.</p> <p>1.16.3 Examines how globalizing processes impact nutrition, nutrition education and nutrition related diseases in developing countries</p> <p>1.6.1 Formulates food and nutrition services considering psychological and social factors to meet the needs of individuals, communities and populations.</p> <p>2.2.1 Considers all client/patient factors when selecting, developing nutrition screening tools. (D)</p> <p>2.2.2 Evaluates the validity and reliability of the nutrition screening tools and modifies based on current evidence-informed practice. (S)</p> <p>2.2.3 Leads the implementation of nutrition screening tools in collaboration with other health professionals. (D)</p> <p>2.2.4 Prioritizes care based on results of screening considering complexity of care needs. (D)</p> <p>3.4.1 Has a working knowledge of different agricultural food production systems and related terminology and concepts including potential nutritional impact. (K)</p> <p>3.4.2 Understands the local and global food markets and applicable nutrition regulations. (S)</p> <p>3.4.3 Identifies and supports partnerships with local and global food growers and producers. (S)</p> <p>4.1.1 Recognizes how determinants of health, epidemiological findings, health disparities, political interest, availability of resources, and accessibility influence the nutritional health and well-being of a community and population. (D)</p>

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
			<p>4.1.2 Conducts community and population-based assessments considering all relevant factors. (D)</p> <p>4.1.3 Identifies the resources and connects with partners needed for sustainability of the program. (D)</p> <p>4.1.4 Develops and implements a program considering relevant data addressing the nutrition needs of the community or population. (D)</p> <p>7.2.1 Applies effective and ethical communication skills and techniques to achieve desired goals and outcomes. (D)</p> <p>7.2.3 Participates in advocacy activities to change or promote new legislation and regulation. (D)</p> <p>7.2.4 Selects mode of communication appropriate to the messaging to meet the needs of the audience. (D)</p>
<p>Medical Nutrition Therapy and Pathophysiology (3)</p> <p>NUTR 6XXX</p>	<p>NUTR 4042, NUTR 4165, NUTR 4166, NUTR 4169</p>	<p>Integration of the theories and principles of medical nutrition therapy into clinical practice. Case studies will be used to help students integrate and apply their knowledge of nutrition, dietetics, metabolism and physiology, with the ultimate goal of producing students who can effectively plan and manage the nutritional care of a variety of patients using a critical thinking approach to evidence-based medical nutrition therapy. The course is designed to provide advanced students with knowledge of current relevant research and its application to the clinical setting.</p>	<p>1.2.1 Analyzes the impact of food and nutrition on physiological processes.</p> <p>1.1.4 Demonstrates an understanding of research techniques and processes used to study the relationship between molecules (e.g. genes, proteins, metabolites) and microbes with disease states.</p> <p>1.4.2 Integrates nutritional biochemistry knowledge to make informed food and nutrition decisions for optimal health.</p> <p>1.5.1 Examines nutritional biochemical indicators specific to the disease process. 1.8.2 Demonstrates understanding of pharmacokinetics, absorption, clearance, drug metabolism, latency period, drug and supplement metabolism, accumulation, half-life, and routes of administration.</p> <p>1.1.5 Identifies the influence of food consumption on the development of diseases.</p> <p>1.10.3 Applies math skills to perform food and nutrition calculations</p> <p>1.2.2 Integrates knowledge of anatomy, physiology, and biochemistry to make decisions related to nutrition care.</p> <p>1.5.1 Examines nutritional biochemical indicators specific to the disease process.</p> <p>1.8.1 Identifies the classifications of nutraceutical pharmacological agents and the action of the body.</p> <p>1.9.1 Critically evaluates evidence-based literature to inform decisions about use of complementary and integrative nutrition. (S)</p> <p>1.9.2 Applies an understanding of the impact of complementary and integrative nutrition on drugs, food, disease states and wellness. (S)</p> <p>1.9.3 Identifies indications, use and contraindications of complimentary and integrative nutrition. (K)</p> <p>1.11.1 Interprets and communicates medical terminology to non-health professional audiences.</p>

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
			<p>1.11.2 Uses acceptable medical abbreviations and appropriate medical terminology in all forms of communication.</p> <p>2.4.1 Manages medical nutrition therapy for clients/patients. (D)</p> <p>2.4.2 Applies and integrates understanding of foundational sciences to manage medical nutrition therapy, diet and disease management. (D)</p> <p>2.4.3 Applies foundational science knowledge and medical nutrition therapy principles to establish, order, manage and evaluate the need for nutrition support when prescribing and administering nutritional oral, enteral and parenteral diets. (D)</p> <p>2.5.1 Applies knowledge of foundational sciences and disease when determining the appropriateness of the therapy. (S)</p> <p>2.5.2 Demonstrates awareness of food and drug interactions. (S)</p> <p>2.5.3 Assesses client/patient factors to determine the client/patient's indication for the nutrition-related pharmacotherapy. (S)</p> <p>2.5.4 Considers client/patient factors, nutritional impact, indications, side effects, contraindications, benefits, risks, alternatives and foundational sciences when prescribing, recommending and administering nutrition related drug therapy. (S)</p> <p>2.5.5 Critically analyzes the potential negative effects of the nutrition therapy or supplement and determines the required knowledge, skill and judgment required to manage negative outcomes. (S)</p>
<p>Nutrient Metabolism (3)</p> <p>NUTR 6XXX</p>	<p>NUTR 4158</p> <p>NUTR 4042</p>	<p>Comprehensive study and evaluation of current research on biochemical and metabolic significance of carbohydrates, lipids proteins vitamins and minerals to human nutrition.</p>	<p>1.1.2 Demonstrates general understanding of nutrition and genetics, as it relates to health conditions.</p> <p>1.2.1 Analyzes the impact of food and nutrition on physiological processes</p> <p>1.9.1 Critically evaluates evidence-based literature to inform decisions about use of complementary and integrative nutrition.</p> <p>1.9.2 Applies an understanding of the impact of complementary and integrative nutrition on drugs, food, disease states and wellness.</p> <p>1.9.3 Identifies indications, use and contraindications of complementary and integrative nutrition.</p> <p>1.14.4 Explains and takes into consideration how nutrients, nutritional supplements and hydration influence physical activity and wellness.</p> <p>6.3.1 Uses research terminology when communicating with other professionals and publishing research. (D)</p> <p>6.3.2 Critically examines and interprets current research and evidence-informed practice findings to determine the validity, reliability and credibility of information. (D)</p> <p>6.3.3 Integrates current research and evidence-informed practice findings into delivery of safe and effective nutrition care. (D)</p>

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
			<p>6.3.4 Analyzes and formulates a professional opinion based on the current research and evidence-based findings and experiential learning. (D)</p> <p>7.1.8 Maintains confidentiality and security in the sharing, transmission, storage and management of protected health information. (D)</p>
<p>Nutrition Assessment and Diagnosis (3)</p> <p>NUTR 6XXX</p>	<p>NUTR 4165, NUTR 4169, NUTR 4166</p>	<p>Study of nutrition assessment methods including dietary intake, anthropometric and biochemical measures, as well as nutrition focused physical examination; utilization of nutrition care process including nutrition assessment, diagnosis, interventions, monitoring, and evaluation with individuals, groups, or populations.</p>	<p>1.5.2 Interprets and analyzes the effect of diet, fluids, electrolytes and nutritional status on the development and progress of the disease process.</p> <p>1.5.3 Interprets and analyzes the effects of disease, clinical condition and treatment on nutritional health status.</p> <p>1.5.4 Analyzes the correlation between mental health conditions and nutritional health.</p> <p>1.7.3 Identifies challenges that arise when different cultures, values, beliefs and experiences exist between clients/patients and nutrition and dietetics professionals</p> <p>1.8.3 Identifies potential drug and food interactions based on physiological responses to pharmacological agents and takes appropriate actions.</p> <p>1.10.3 Applies math skills to perform food and nutrition calculations.</p> <p>2.2.1 Considers all client/patient factors when selecting, developing nutrition screening tools. (D)</p> <p>2.2.2 Evaluates the validity and reliability of the nutrition screening tools and modifies based on current evidence-informed practice. (S)</p> <p>2.2.3 Leads the implementation of nutrition screening tools in collaboration with other health professionals. (D)</p> <p>2.2.4 Prioritizes care based on results of screening considering complexity of care needs. (D)</p> <p>Diagnosis</p> <p>2.3.13 Analyzes and synthesizes nutrition assessment data to inform nutrition diagnosis(es) and nutritional plan of care. (D)</p> <p>2.3.14 Devises PES (problem, etiology and sign symptom) statement and outlines reasons for professional opinion cause and contributing factors. (D)</p> <p>2.3.15 Prioritizes the nutrition diagnosis(es) . (D) Intervention</p> <p>2.3.16 Develops an individualized plan of care that addresses nutritional care needs diagnosis and client/patient nutrition goals in collaboration with the client/patient and team members. (D)</p> <p>2.3.17 Orders nutrition prescriptions to address nutritional goals. (D)</p> <p>2.3.18 Implements the nutrition plan of care or nutrition intervention with the client/patient and other team members. (D)</p> <p>Monitoring/Evaluation</p> <p>2.3.19 Monitors and evaluates impact of nutrition intervention on the nutrition diagnosis. (D)</p> <p>2.3.20 Develops and applies nutrition care outcome indicators to measure nutrition intervention. (D)</p>



Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
			<p>2.3.21 Assesses client/patient's compliance with nutrition intervention. (D)</p> <p>2.3.22 Identifies barriers to meeting client/patient's nutrition goals and makes recommendations to modify the nutrition plan of care or nutrition intervention, and communicates changes to client/patient and others. (D)</p> <p>2.3.23 Summarizes impact of nutrition interventions on client/patient's nutrition outcomes, considering client/patient-centered care. (D)</p> <p>2.3.24 Identifies, analyzes and communicates reasons for deviation from expected nutrition outcomes. (D)</p> <p>2.3.25 Evaluates the availability of services to support access to nutrition care and to help meet client/patient nutrition goals. (D)</p>
<p>Nutrition Education and Counseling (3)</p> <p>NUTR 6XXX</p>	NUTR 4170	<p>This course addresses communication skills to guide practice including behaviors that maximize group participation. Cultural sensitivity and environmental aspects of diet, eating and food are addressed. Interviewing, counseling and education theories and principles are covered along with development of client and group education materials. Students design activities for various audiences considering factor relevant to individuals, groups and communities. Students learn how to apply behavior change theories, and interviewing and counseling principles to identify the indications, contraindications, benefits, risks and limitations and effectiveness of the counseling and therapy.</p>	<p>1.7.5 Applies culturally sensitive approaches and communication skills.</p> <p>1.7.6 Develop awareness of own personal beliefs values and biases to better serve clients/patients of different cultures and backgrounds</p> <p>1.10.2 Communicates information on statistical methods, results and interpretation, both orally and in writing.</p> <p>Education</p> <p>2.4.6 Applies education theories, adult learning, pedagogy and education principles when developing, modifying, delivering or implementing education materials. (D)</p> <p>2.4.7 Assesses audience's readiness to learn and identifies barriers to learning. (D)</p> <p>2.4.8 Develops or modifies nutrition education materials or delivery methods to meet the needs of the audience. (D)</p> <p>2.4.9 Develops and provides evidence-informed nutritional wellness and therapeutic diet education to variety of audiences. (D)</p> <p>2.4.10 Translates basic to advanced food and nutrition science knowledge into understandable language tailored to the audience. (D)</p> <p>2.4.11 Communicates complex nutrition information to broad and diverse audiences. (D)</p> <p>2.4.12 Evaluates effectiveness of nutrition education and makes modifications as required. (D)</p> <p>Psychological Counseling and Therapies</p> <p>2.4.13 Assesses client/patient's nutritional needs and appropriateness for the recommended counseling or therapy. (D)</p> <p>2.4.14 Applies counseling principles and evidence-informed practice when providing individual or group sessions. (D)</p>
Pathophysiology across the Life Span			
Research project (1-3)	Undergraduate: NUTR 4198,	Working with a mentor, groups of students participate in a systematic review to critically	<p>6.1.3 Engages in reflective practice to promote change and continuous learning. (D)</p> <p>6.2.1 Identifies, explains and applies the steps of the scientific method and processes. (D)</p>

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
NUTR 6XXX	MATE 3026  Graduate: NUTR 6XXX Applied Nutrition Research	appraise the literature regarding a clinical nutrition care problem. They will follow a systematic review approach for screening studies, extracting the data, critically appraising the results, and synthesizing findings. The students translate and communicate the research findings and conclusions through a variety of media, and formulate conclusions based on findings. As an outcome, student groups (in concert with their mentor) will present their project and defend their findings to an audience. Students will complete an RDN Mock-Exam with a minimum of 80%.	6.2.2 Articulates a clear research question or problem and formulates a hypothesis. (D) 6.2.3 Identifies and demonstrates appropriate research methods. (D) 6.2.4 Interprets and applies research ethics and responsible conduct in research. (D) 6.2.5 Collects and retrieves data using a variety of methods (qualitative, quantitative) and technologies. (D) 6.2.6 Analyzes research data using appropriate data analysis techniques (qualitative, quantitative, mixed). (D) 6.2.7 Translates and communicates research findings and conclusions through a variety of media. (D)
Supervised Experiential Learning in Clinical Nutrition (3)  NUTR 6XXX	Undergraduate: NUTR 4165, NUTR 4169, NUTR 4166 or equivalent.  Graduate: NUTR 6XXX- Medical Nutrition Therapy and Pathophysiology	This course will provide 270 hours of supervised experiential learning in clinical dietetics. Rotations are completed at diverse clinical facilities, in-inpatient and outpatient clinics supervised by a preceptor (i.e., licensed nutritionist and dietitian).	1.13.1 Analyzes appropriate data in electronic format to make best decisions related to nutrition and diet. 1.13.2 Evaluates accuracy and reliability when accessing and evaluating nutrition information in electronic format. 1.13.3 Operates nutrition informatics systems in practice. 1.13.4 Uses electronic databases to obtain nutrition information and evaluate credible sources in decision making. 1.13.5 Uses technology and informatics skills proficiently to aggregate data and enhances practice and client/patient care. 1.8.2 Demonstrates understanding of pharmacokinetics, absorption, clearance, drug metabolism, latency period, drug and supplement metabolism, accumulation, half-life, and routes of administration. 2.3.2 Interviews client/patient to collect subjective information considering the determinants of health. (D) 2.3.3 Conducts a nutrition focused physical exam. (D) 2.3.4 Takes a food and nutrition related medical history. (D) 2.3.5 Assesses physical activity and history of physical activity. (D) 2.3.6 Collects, assesses and interprets anthropometric measures and body composition. 2.3.7 Orders, collects and interprets biochemical tests. (D) 2.3.8 Analyzes diagnostic test results relevant to nutrition (e g. diagnostic imaging related to fluoroscopy, swallowing evaluation, enteral feeding tube placement) . (D) 2.3.9 Identifies signs and symptoms of nutrient deficiencies or excesses. (D) 2.3.10 Determines barriers that might influence a client/patient's nutritional status. (D)

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
			<p>2.3.11 Determines accuracy and currency of nutrition assessment data. (D)</p> <p>2.3.12 Identifies patient appropriate validated formula and performs calculations to determine nutritional requirements.</p> <p>2.3.13 Analyzes and synthesizes nutrition assessment data to inform nutrition diagnosis(es) and nutritional plan of care. (D)</p> <p>2.3.14 Devises PES (problem, etiology and sign symptom) statement and outlines reasons for professional opinion cause and contributing factors. (D)</p> <p>2.3.15 Prioritizes the nutrition diagnosis(es). (D)</p> <p>Intervention</p> <p>2.3.16 Develops an individualized plan of care that addresses nutritional care needs diagnosis and client/patient nutrition goals in collaboration with the client/patient and team members. (D)</p> <p>2.3.17 Orders nutrition prescriptions to address nutritional goals. (D)</p> <p>2.3.18 Implements the nutrition plan of care or nutrition intervention with the client/patient and other team members. (D)</p> <p>Monitoring/Evaluation</p> <p>2.3.19 Monitors and evaluates impact of nutrition intervention on the nutrition diagnosis. (D)</p> <p>2.3.20 Develops and applies nutrition care outcome indicators to measure nutrition intervention. (D)</p> <p>2.3.21 Assesses client/patient's compliance with nutrition intervention. (D)</p> <p>2.3.22 Identifies barriers to meeting client/patient's nutrition goals and makes recommendations to modify the nutrition plan of care or nutrition intervention, and communicates changes to client/patient and others. (D)</p> <p>2.3.23 Summarizes impact of nutrition interventions on client/patient's nutrition outcomes, considering client/patient-centered care. (D)</p>
<p>Supervised Experiential Learning in Community Nutrition (2)</p> <p>NUTR 6XXX</p>	<p>Undergraduate; NUTR 4170, NUTR 4176 or equivalent,</p> <p>Graduate: NUTR 6XXX- Global Community Nutrition</p>	<p>This course provides 180 hours of supervised experiential learning experiences in community settings. Emphasis is on delivering food and nutrition services in community-based settings with a focus on wellness. Rotations may include the practice sites: child and adult day care, WIC Programs and breastfeeding support, food banks, and community-based wellness programs. Students are required to complete the rotations and to meet requirements through special projects.</p>	<p>1.15.1 Recognizes and communicates the cause of disease and nutrition risks.</p> <p>1.15.2 Identifies, prioritizes and implements health risk reduction strategies for individuals, groups and populations.</p> <p>1.15.3 Examines the influence of the determinants of health on health and wellness.</p> <p>1.15.4 Designs food and nutrition activities for various audiences considering factors relevant to individuals, groups and communities.</p> <p>1.15.5 Applies behavior change theories for nutritional health promotion and disease prevention.</p> <p>1.7.4 Identifies and implements strategies to address cultural biases and differences. (D)</p> <p>1.7.5 Applies culturally sensitive approaches and communication skills. (D)</p> <p>2.4. Applies education theories, adult learning, pedagogy and education principles when developing, modifying, delivering or implementing education materials. (D)</p>

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
		Rotations are on practice sites, outside UPRRP, under the supervision of preceptors (licensed Nutritionists and Dietitians).	<p>2.4.7 Assesses audience's readiness to learn and identifies barriers to learning. (D)</p> <p>2.4.8 Develops or modifies nutrition education materials or delivery methods to meet the needs of the audience. (D)</p> <p>2.4.9 Develops and provides evidence-informed nutritional wellness and therapeutic diet education to variety of audiences. (D)</p> <p>2.4.10 Translates basic to advanced food and nutrition science knowledge into understandable language tailored to the audience. (D)</p> <p>2.4.11 Communicates complex nutrition information to broad and diverse audiences. (D)</p> <p>2.4.12 Evaluates effectiveness of nutrition education and makes modifications as required. (D)</p> <p>5.3.4 Conducts regular review of project to note strengths and opportunities for improvement and to implement adjusted actions. (D)</p> <p>5.4.1 Identifies and communicates quality and/or performance improvement indicators and benchmarks using evidence-informed practice. (D)</p> <p>5.4.2 Develops quality and/or performance improvement measurement tools and analyzes data to inform baselines and to identify root causes and potential solutions. (D)</p> <p>5.4.3 Develops, implements and communicates a quality and/or performance improvement action plan for further improvement and monitors impact. (D)</p> <p>5.4.4 Develops, implements and communicates an ongoing measuring and monitoring system to ensure ongoing quality and performance improvement. (D)</p> <p>5.5.1 Assesses potential and real risks to an individual, group and or organization. (D)</p> <p>5.5.3 Develops risk management plans and protocols. (D)</p> <p>6.2.7 Translates and communicates research findings and conclusions through a variety of media. (D)</p> <p>4.2.3 Analyzes political interests and their impact on program development, goals and objectives. (D)</p> <p>7.2.1 Applies effective and ethical communication skills and techniques to achieve desired goals and outcomes. (D)</p> <p>7.2.3 Participates in advocacy activities to change or promote new legislation and regulation. (D)</p> <p>7.2.4 Selects mode of communication appropriate to the messaging to meet the needs of the audience. (D)</p>
Supervised Experiential Learning in Foodservice Management (3)	Undergraduate: NUTR 4075, NUTR 4055, NUTR 4068, NUTR 4076, NUTR 4086,	This course will provide 270 hours of supervised experiential learning experiences in foodservice management. The purpose of the learning activities and assignments is to provide the student with the opportunity to apply knowledge and skill in food service	<p>1.12.1 Demonstrates understanding of safe work habits and safety hazards and employs preventive safety measures.</p> <p>1.12.2 Converts recipes and ingredients based on client's preferences or dietary needs.</p> <p>1.12.3 Develops recipes and menus and increases or decreases quantities served from the recipe.</p> <p>1.12.4 Evaluates recipes using sensory evaluation methods.</p>

Course	Prerequisites	Course Description	ACEND Standards of performance (K=know; S=show; D=does)
NUTR 6XXX	Graduate: NUTR 6XXX- Foodservice Management	management in a health care setting. Rotations are on practice sites, outside UPRRP, under the supervision of preceptors (i.e., licensed Nutritionists and Dietitians).	3.1.1 Manages or oversees the planning, designing and coordination of meals to ensure delivery of nutritionally sound meals. (D) 3.1.2 Analyzes the workflow design and makes recommendations for modifications or approves for implementation. (D) 3.1.3 Communicates the organization's mission and how work activities impact the services and organization. (D) 3.1.4 Establishes and analyzes policies and performance measures for quality and quantity of work. (D) 3.1.5 Implements systems to report on local, state and federal compliance. (D) 3.1.6 Directs and analyzes the evaluation of foodservice production and services to inform, change, and/or budget resources and department or corporate direction. (D) 3.1.7 Establishes a culture that is ethical and free of safety and health hazards. (D) 3.1.8 Investigates and optimizes opportunities to reduce the environmental carbon footprint of foodservice operations and to enhance sustainability. (D) 3.2.1 Follows a matrix or measures to evaluate the need for financial, technical and equipment resources for the provision of foodservices. (D) 3.2.2 Applies ethical decision making to determine the need for reduction or increase in resources. (D) 3.2.3 Creates internal or external professional relations and/or agreements to solve problems in foodservice operations. (D) 3.2.4 Acts as a departmental and organizational liaison between contractual parties involved. (S) 3.2.5 Demonstrates knowledge of inventory control as it pertains to the food and supplies of the foodservice operation. (K) 3.2.6 Applies the principles of the process of receiving and storing products demonstrating adherence to food safety code, nutrition guidelines and regulations. (D)

**Appendix B.** Curriculum Vitae of professors in the proposed MSND with supervised experiential learning

**University of Puerto Rico  
Rio Piedras Campus  
Department of Mathematics**

**MATH6686 Experimental Design and Advanced Data Analysis  
First semester 2019-2020**

**General information**

Credits:	3.
Meeting hours:	Tuesdays and Thursdays 1:00-2:20pm CN114-A
Instructor:	María-Eglée Pérez <a href="mailto:maria.perez34@upr.edu">maria.perez34@upr.edu</a>
Office:	C-123
Office phone:	787-7640000 ext 88296
Office hours:	By appointment.

**Course Description**

This is a multidisciplinary course where students will be introduced to the most used methods in experimental design and statistical data analysis and their application in Biology, Environmental Sciences, etc. Statistical software will be used for applying this concepts and techniques in practice.

**Prerequisites**

MATE3026 or another introductory course of Statistics at undergraduate level.

**Course Objectives**

Under completion of this course, students are expected to

- Understand the main ideas behind statistical methods.
- Apply the following statistical techniques for designing studies and analyzing data in Biology, Chemistry, Environmental Sciences and other areas.: Estimation, Hypothesis Testing, Exploratory Data Analysis, correlation, linear regression, data transformation, one way and two way Data Analysis, Experimental Design, Covariance analysis, Contingency Tables Analysis, Generalized Linear Models.
- Deciding when the studied statistical techniques can be applied.
- Using statistical software R as a tool for designing studies and analyzing data.

## Tentative course schedule

Date	Contents
Aug-13	Introduction. How to store data in worksheets to be read from statistical packages.
Aug-15	Introduction to R: The S language, installing, running and quitting R; getting help. Extending R functionalities: Packages. Projects in R. RMarkdown.
Aug-20	Basic Mathematical Operations. Variables and Assignments. Listing Workspace and Erasing Variables. Vectors.
Aug-22	Data Frames Manipulating data frames with tidyverse. Reading data Working directory Reading data.
Aug-27	Introduction to programming in R
Aug-29	Basic definitions: What is Statistics? Population and sample; parameters and statistics; variables
Sep-03	Exploratory data analysis: Graphs for categorical variables, graphs for quantitative variables.
Sep-05	Exploratory data analysis: graphs for quantitative variables. Graphs for exploring relationships between variables. Probabilistic graphs.
Sep-10	Exploratory data analysis: Numerical descriptive measures: mean, median, mode, range, standard deviation, percentiles and quartiles, interquartile range.
Sep-12	Exploratory data analysis: Box Plots. Transforming data.
Sep-17	Estimation: methods of estimation, resampling methods. <b>First project will be assigned</b>
Sep-19	Statistical hypothesis testing: decision errors, level and power. P-values.
Sep-24	Statistical hypothesis testing: Tests of hypothesis based on the normal distribution.
Sep-26	Correlation and regression: simple linear regression: estimating parameters
Oct-01	Simple linear regression: analysis of variance, regression diagnostics, transformations.
Oct-03	Multiple linear regression: estimating model parameters, testing hypothesis, comparing models. <b>Exam 1 will be assigned.</b>
Oct-08	Multiple linear regression: regression diagnostics, transformations. <b>First project deadline</b>
Oct-10	Multiple linear regression: Model selection. <b>Second project will be assigned</b>
Oct-15	<b>Class will not meet</b> (Monday classes will meet)
Oct-17	Comparing groups: analysis of variance: single factor designs, assumptions, specific comparison of means.
Oct-22	Two way analysis of variance
Oct-24	Introduction to the ideas of experimental design. Randomized blocks design
Oct-29	Repeated measures design.
Oct-31	Latin squares design. Introduction to mixed models. <b>Second project deadline</b>
Nov-05	Introduction to mixed models.Nested designs <b>Third project will be assigned</b>
Nov-07	Split-plot designs.
Nov-12	Analysis of covariance.
Nov-14	Analyzing frequencies: Goodness of fit tests; contingency tables
Nov-19	Analyzing frequencies: Goodness of fit tests; contingency tables.
Nov-21	Generalized linear models: models for contingency tables: log-linear models, logistic models.
Nov-26	Generalized linear models: models for contingency tables: log-linear models, logistic models.
Nov-28	<b>Holiday: Thanksgiving</b>
Dec-03	<b>Exam 2. Third project deadline</b>



## Course policy

Class participation (questions and comments) is encouraged. Please turn your cell phone off or use silent mode. If you need to answer a phone call in an emergency, please leave the classroom.

Appointments for office hours can be made at the end of the class or by e-mail.

Class presentations, homeworks, projects, etc. will be posted in the UPR-Río Piedras Moodle server <http://online.uprrp.edu>, where discussions forums will be available. You must be already enrolled with your institutional account. Exams and projects also can be turned in using Moodle facilities.

## Grades

- Three projects (20% each)
- Two take home exams (15% each)
- Homework (10%)

Exams will be “take home” and should be returned 24 hours after being posted. Projects should follow the format of a scientific paper and will be usually posted three weeks before the deadline. They can be handed personally, by e-mail or using Moodle before 11:59pm of final day. NO LATE EXAMS, PROJECTS OR HOMEWORKS WILL BE ACCEPTED (exceptions can be made in special cases, if evidence is provided).

## Alternate teaching methods

This course is planned to hold most activities in the classroom. Nevertheless, alternate methods (video conference, discussion forums, distance learning modules, etc.) could be used to replace at most 25% of contact hours (11.25 hours) if it is needed. In such a case, contents and strategies would be announced and this syllabus would be modified accordingly.

*Certificación Núm 112 (2014-2015) de la Junta de Gobierno define un curso presencial como un curso en el cual 75% o más de las horas de instrucción requieren la presencia física del estudiante y el profesor en el salón de clases. Esto quiere decir que 25% de un curso presencial, pudiera ofrecerse sin requerir la presencia física de los estudiantes y el profesor en el salón de clases.*

*En caso de ser necesario, este curso podrá completar hasta 25% de las horas contacto (11.25 horas) de forma no presencial por métodos alternos como, por ejemplo: Video-conferencias, módulos instruccionales, foros de discusión y cibercharlas entre otros. De ser así, se modificará el calendario/temario para incluir los temas que serán cubiertos por métodos alternos.*

## Instructional Techniques

In the classroom: conferences, discussions, group work, etc.

Alternate teaching methods (outside the classroom): Video conferences, virtual discussion forums, group projects, self learning modules, cyber talks, short online tests.

## Learning resources

- Access to a computer with fast Internet connection.
- Institutional e-mail account (upr.edu)
- Moodle platform <http://online.uprrp.edu>
- Microsoft Office (Word, Excel, PowerPoint) or equivalent software.
- Statistical programming language R. This software can be obtained from <http://cran.r-project.org>, and can be easily installed in different computer platforms (Windows, Mac and different Linux distributions). Different extensions ("packages") of R will also be used.
- The IDE R-Studio will be used to interact with R (<http://www.rstudio.com>)

## Academic Integrity

Academic integrity is expected from every student of the course. Projects and exams should be worked individually unless otherwise is previously established (group projects).

Students are encouraged to study together and to discuss class contents and concepts with other students. You can ask for help from other students as far as this help does not include working together or sharing pieces of another person work, either in physical or electronic form.

In case of cheating, an F grade will be assigned to the activity. Other measures can be taken if necessary. It is also expected that you give appropriate credit to any source of information you have used for developing your work (in other words, plagiarism should be avoided!)

*"The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Students General Bylaws (Board of Trustees Certification 13, 2009-2010) states that academic dishonesty includes, but is not limited to: fraudulent actions; obtaining grades or academic degrees by false or fraudulent simulations; copying the whole or part of the academic work of another person; plagiarizing totally or partially the work of another person; copying all or part of another person answers to the questions of an oral or written exam by taking or getting someone else to take the exam on his/her behalf; as well as enabling and facilitating another person to perform the aforementioned behavior. Any of these behaviors will be subject to disciplinary action in accordance with the disciplinary procedure laid down in the UPR Students General Bylaws".*

## **Accommodations for students with disabilities (“Acomodo razonable”)**

Students requiring reasonable accommodations should contact the instructor during the first three weeks of the semester, so planning and arrangements can be made in time. Unusual circumstances can be taken into account.

*“Los estudiantes que requieren acomodo razonable o reciben servicios de Rehabilitación Vocacional deben comunicarse con el profesor al inicio del semestre para planificar el acomodo y equipo necesario conforme a las recomendaciones de la Oficina de Asuntos para las Personas con Impedimentos (OAPI). También aquellos estudiantes con necesidades especiales que requieren de algún tipo de asistencia o acomodo deben comunicarse con el instructor. (Ley 51 del 7 de junio de 1996).”*

## **Regulations on discrimination by sex and gender in sexual violence form (Certification 39, 2018-2019)**

“The University of Puerto Rico prohibits discrimination based on sex, sexual orientation, and gender identity in any of its forms, including that of sexual harassment. According to the Institutional Policy Against Sexual Harassment at the University of Puerto Rico, Certification Num. 130, 2014-2015 from the Board of Governors, any student subjected to acts constituting sexual harassment, must come to the Office of the Student Ombudsperson, the Office of the Dean of Students, and/or the Coordinator of the Office of Compliance with Title IX for an orientation and/or a formal complaint”.

## **Grading system**

A, B, C, D and F

## **Bibliography and additional resources**

*Textbook:* Gerry P. Quinn and Michael J. Keough (2002) *Experimental Design and Data Analysis for Biologists*. Cambridge. ISBN: 9780521009768

R statistical software can be downloaded from <http://cran.r-project.org>. This software can be installed and used for free. Documentation in Spanish, English and other languages can be found at the same site.

A useful way of interacting with R is through R-studio (<http://www.rstudio.com>), an Integrated Development Environment (IDE) for R. Binaries for Windows, MacOS and Linux, as well as source codes, can be downloaded from the website.

Other resources:

- Wickham, Hadley and Grolemond, Garrett (2017) “R for Data Science”. O'Reilly Media. Also available at <https://r4ds.had.co.nz>
- Crawley, Michael (2015) “Statistics: an introduction with R” (2nd edition). Wiley. ISBN: 9780470022986

- Irizarry, Rafael and Love, Michael (2015) "Data Analysis for the Life Sciences". <http://leanpub.com/dataanalysisforthelifesciences>
- Dalgaard, Peter (2008) "Introductory Statistics Using R" (2nd edition). Springer. ISBN: 9780387790534
- Box, George; Hunter, J. Stuart; Hunter, William (2005) "Statistics for Experimenters: Design, Innovation, and Discovery", (2nd Edition). Wiley. ISBN: 9780471718130

Universidad de Puerto Rico  
Recinto de Río Piedras  
Facultad de Ciencias Naturales  
Programa de Nutrición y Dietética

## PRONTUARIO

<b>TÍTULO DEL CURSO</b>	:	Advanced Concepts in Nutrition
<b>CODIFICACIÓN</b>	:	NUTR 6XXXX
<b>CANTIDAD DE HORAS/CRÉDITO</b>	:	45 horas / Tres créditos
<b>PRERREQUISITOS, CORREQUISITOS Y OTROS REQUERIMIENTOS:</b>	:	NUTR 6XXX Applied Nutrition Research, MATE 6686
<b>DESCRIPCIÓN DEL CURSO:</b>		
<p>Se discuten temas contemporáneos en alimentos y nutrición. Análisis crítico de la literatura científica y el impacto de cada tema en la población. Este curso se ofrecerá bajo las modalidades presencial, híbrida y en línea.</p> <p><i>Discussion of contemporary issues in foods and nutrition. Critical analysis of the scientific literature and the impact each topic may have in the population. This course may be offered in distance, hybrid or face-to-face modality.</i></p>		
<b>OBJETIVOS DE APRENDIZAJE:</b>		
<ol style="list-style-type: none"><li>1. Examine contemporary issues in foods and human nutrition of current priority or controversy</li><li>2. Analyze the recent scientific research regarding current topics and potential gaps in knowledge.</li><li>3. Demonstrate effective use of information technologies and documentation during the revision and presentation of the scientific literature.</li><li>5. Compare diverse perspectives related to controversial or novel topics in foods and nutrition.</li><li>6. Consider the role of economic, political and social factors in the study of controversial or novel issues in food and nutrition.</li></ol>		

**LIBRO DE TEXTO PRINCIPAL:**

No tiene.

**BOSQUEJO DE CONTENIDO Y DISTRIBUCIÓN DEL TIEMPO:**

<i>Tema</i>	Distribución del tiempo		
	Presencial	Híbrido	En línea
I. Tema 1 - Nutrigenómica	14 horas	3 horas (presenciales)	14 horas
II. Tema 2 – <i>Nutrition Informatics</i>	14 horas	4 horas (a distancia)	14 horas
III. Tema 3 – Epidemiología nutricional	14 horas	11 horas (presenciales)	14 horas
IV. Evaluación final	3 horas	3 horas (presenciales)	3 horas
<b>Total de horas contacto</b>	<b>45 horas</b>	<b>45 horas</b> (18 presenciales = 40% y 27 horas a distancia = 60%)	<b>45 horas</b>

**ESTRATEGIAS INSTRUCCIONALES:**

Presencial	Híbrido	En línea
<ul style="list-style-type: none"><li>● Conferencias del profesor</li><li>● Lecturas</li><li>● Trabajos en grupo</li><li>● Tareas individuales</li><li>● Actividades de avalúo</li><li>● Actividades prácticas</li><li>● Presentaciones orales</li></ul>	<ul style="list-style-type: none"><li>● Módulos instruccionales en línea</li><li>● Lecturas de artículos profesionales en línea</li><li>● Videos instruccionales</li><li>● Trabajos en grupo</li><li>● Tareas individuales</li><li>● Actividades de avalúo</li><li>● Actividades prácticas</li><li>● Presentaciones orales</li><li>● Videoconferencias asincrónicas y sincrónicas</li></ul>	<ul style="list-style-type: none"><li>● Módulos instruccionales interactivos</li><li>● Lecturas de artículos profesionales en línea</li><li>● Videos instruccionales</li><li>● Trabajos en grupo</li><li>● Tareas individuales</li><li>● Actividades de avalúo</li><li>● Actividades prácticas</li><li>● Presentaciones orales</li><li>● Videoconferencias asincrónicas</li><li>● Reuniones sincrónicas</li></ul>

**RECURSOS MÍNIMOS DISPONIBLES O REQUERIDOS:**

Recurso	Presencial	Híbrido	En línea
---------	------------	---------	----------

Cuenta en la plataforma institucional de gestión de aprendizaje (Ej. Moodle)	Institución	Institución	Institución
Cuenta de correo electrónico institucional	Institución	Institución	Institución
Computadora con acceso a internet de alta velocidad o dispositivo móvil con servicio de datos	Estudiante	Estudiante	Estudiante
Programados o aplicaciones: procesador de palabras, hojas de cálculo, editor de presentaciones	Estudiante	Estudiante	Estudiante
Bocinas integradas o externas	No aplica	Estudiante	Estudiante
Cámara web o móvil con cámara y micrófono	No aplica	Estudiante	Estudiante

### TÉCNICAS DE EVALUACIÓN:

Presencial	Híbrido	En línea
Asignaciones .....20%	Asignaciones.....10%	Asignaciones y actividades asincrónicas.....10%
Exámenes..... 30%	Participación en foros de discusión.....30%	Participación en foros de discusión.....30%
Portafolio..... 30%	Exámenes .....30%	Trabajos reflexivos.....20%
Proyectos grupales.....20%	Trabajos reflexivos..... 10%	Exámenes .....30%
Participación .....10%	Proyectos grupales .....10%	Proyectos grupales .....10%
<b>Total.....100%</b>	<b>Total.....100%</b>	<b>Total.....100%</b>

### ACOMODO RAZONABLE:

Según la Ley de Servicios Educativos Integrales para Personas con Impedimentos, todo estudiante que requiera acomodo razonable deberá notificarlo al profesor el primer día de clase. Los estudiantes que reciban servicios de Rehabilitación Vocacional deben comunicarse con el (la) profesor(a) al inicio del semestre para planificar el acomodo razonable y el equipo de asistencia necesario conforme a las recomendaciones de la Oficina de Servicios a Estudiantes con Impedimentos (OSEI) del Decanato de Estudiantes. También aquellos estudiantes con necesidades especiales de algún tipo de asistencia o acomodo deben comunicarse con el (la) profesor(a). Si un alumno tiene una discapacidad documentada (ya sea física, psicológica, de aprendizaje o de otro tipo, que afecte su desempeño académico) y le gustaría solicitar disposiciones académicas especiales, éste debe comunicarse con la Oficina de Servicios a Estudiantes con Impedimentos (OSEI) del Decanato de Estudiantes, a fin de fijar una cita para dar inicio a los servicios pertinentes.

### INTEGRIDAD ACADÉMICA

La Universidad de Puerto Rico promueve los más altos estándares de integridad académica y científica. El Artículo 6.2 del Reglamento General de Estudiantes de la UPR (Certificación Núm.

13, 2009-2010, de la Junta de Síndicos) establece que “la deshonestidad académica incluye, pero no se limita a: acciones fraudulentas, la obtención de notas o grados académicos valiéndose de falsas o fraudulentas simulaciones, copiar total o parcialmente la labor académica de otra persona, plagiar total o parcialmente el trabajo de otra persona, copiar total o parcialmente las respuestas de otra persona a las preguntas de un examen, haciendo o consiguiendo que otro tome en su nombre cualquier prueba o examen oral o escrito, así como la ayuda o facilitación para que otra persona incurra en la referida conducta”. Cualquiera de estas acciones estará sujeta a sanciones disciplinarias en conformidad con el procedimiento disciplinario establecido en el Reglamento General de Estudiantes de la UPR vigente. Para velar por la integridad y seguridad de los datos de los usuarios, todo curso híbrido y en línea deberá ofrecerse mediante la plataforma institucional de gestión de aprendizaje, la cual utiliza protocolos seguros de conexión y autenticación. El sistema autentica la identidad del usuario utilizando el nombre de usuario y contraseña asignados en su cuenta institucional. El usuario es responsable de mantener segura, proteger, y no compartir su contraseña con otras personas.

#### **NORMATIVA SOBRE HOSTIGAMIENTO SEXUAL**

“La Universidad de Puerto Rico prohíbe el discrimen por razón de sexo y género en todas sus modalidades, incluyendo el hostigamiento sexual. Según la Política Institucional contra el Hostigamiento Sexual en la Universidad de Puerto Rico, Certificación Núm. 130, 2014-2015 de la Junta de Gobierno, si un estudiante está siendo o fue afectado por conductas relacionadas a hostigamiento sexual, puede acudir ante la Oficina de Procuraduría Estudiantil, el Decanato de Estudiantes o la Coordinadora de Cumplimiento con Título IX para orientación y/o presentar una queja”.

#### **SISTEMA DE CALIFICACIÓN**

A 90-100, B 80-89, C 70-79, D 60-69, F  $\leq$  59

#### **PLAN DE CONTINGENCIA EN CASO DE UNA EMERGENCIA**

En caso de surgir una emergencia o interrupción de clases, el profesor/a se comunicará vía correo electrónico institucional para coordinar la continuidad del ofrecimiento del curso.

#### **BIBLIOGRAFÍA**

Bangdiwala SI. Basic epidemiology research designs III: cohort prospective design. *Int J Inj Contr Saf Promot*. 2019 Sep;26(3):322-325. doi: 10.1080/17457300.2019.1625167. Epub 2019 Jun 14. PMID: 31195894.



Bruemmer, B., Harris, J., Gleason, P., Boushey, C. J., Sheean, P. M., Archer, S., & Van Horn, L. (2009). Publishing nutrition research: a review of epidemiologic methods. *J Am Diet Assoc*, 109(10), 1728-1737. <https://doi.org/10.1016/j.jada.2009.07.011>

Chan, L., Vasilevsky, N., Thessen, A., McMurry, J., & Haendel, M. (2021). The landscape of nutri-informatics: a review of current resources and challenges for integrative nutrition research. *Database (Oxford)*, 2021. <https://doi.org/10.1093/database/baab003>

Freudenheim JL. Study design and hypothesis testing: Issues in the evaluation of evidence from research in nutritional epidemiology. *Am J Clin Nutr*. 1999;69:1315S–1321S

García-Calzón S, Zalba G, Ruiz-Canela M, Shivappa N, Hébert JR, Martínez JA, Fitó M, Gómez-Gracia E, Martínez-González MA, Martí A. Dietary inflammatory index and telomere length in subjects with a high cardiovascular disease risk from the PREDIMED-NAVARRA study: cross-sectional and longitudinal analyses over 5 y. *Am J Clin Nutr*. 2015 Oct;102(4):897-904.

Greenwood DC, Hardie LJ, Frost GS, Alwan NA, Bradbury KE, Carter M, Elliott P, Evans CEL, Ford HE, Hancock N, Key TJ, Liu B, Morris MA, Mulla UZ, Petropoulou K, Potter GDM, Riboli E, Young H, Wark PA, Cade JE. Validation of the Oxford WebQ online 24-hour dietary questionnaire using biomarkers. *Am J Epidemiol*. 2019 Oct 1;188(10):1858-1867.

Hewawitharana SC, Thompson FE, Loria CM, Strauss W, Nagaraja J, Ritchie L, Webb KL. Comparison of the NHANES dietary screener questionnaire to the Automated Self-Administered 24-hour recall for children in the Healthy Communities Study. *Nutr J*. 2018 Nov 27;17(1):111.

Hodge A, Bassett J. What can we learn from dietary pattern analysis? *Public Health Nutr*. 2016;19(2):191-194.

Horne, J. R. (2021). Strengthening the Reporting of Nutritional Genomics Research to Inform Knowledge Translation in Personalized Nutrition. *Lifestyle Genom*, 1-6. <https://doi.org/10.1159/000512544>

Kohlmeier, M., De Caterina, R., Ferguson, L. R., Görman, U., Allayee, H., Prasad, C., Kang, J. X., Nicoletti, C. F., & Martinez, J. A. (2016). Guide and Position of the International Society of Nutrigenetics/Nutrigenomics on Personalized Nutrition: Part 2 - Ethics, Challenges and Endeavors of Precision Nutrition. *J Nutrigenet Nutrigenomics*, 9(1), 28-46. <https://doi.org/10.1159/000446347>

Peace, K. E., Yin, J., Rochani, H., Pandeya, S., & Young, S. (2018). A Serious Flaw in Nutrition Epidemiology: A Meta-Analysis Study. *Int J Biostat*, 14(2). <https://doi.org/10.1515/ijb-2018-0079>

Popkin, B. M., et al. Dynamics of the double burden of malnutrition and the changing nutrition reality. *The Lancet*. 2020;395(10217):65–74. [https://doi.org/10.1016/S0140-6736\(19\)32497-3](https://doi.org/10.1016/S0140-6736(19)32497-3).

**Web Pages:**

Automated web-based 24h recall: <https://epi.grants.cancer.gov/asa24/respondent/2020.html>

Diet record/diary: [http://www.nhlbi.nih.gov/health/educational/lose\\_wt/eat/diary.htm](http://www.nhlbi.nih.gov/health/educational/lose_wt/eat/diary.htm)

Food frequency questionnaire [the NCI Diet History Questionnaire]:

<https://epi.grants.cancer.gov/dhq/webquest/>

F&V screener: <https://epi.grants.cancer.gov/diet/screeners/files.html#eats>

Institute of Medicine, Food and Nutrition Board. Dietary Reference Intake (DRI) series.

Available at <http://www.nap.edu>.

Original preparado por: Yahaira Torres Rivera, EdD, febrero 2019

Adaptado por: Clarisa Cruz, PhD, 20 abril 2020

Aprobado por: Leticia Fernández Morales, MBA, CPA

Revisado 3 diciembre 2020 Dra. C. Cruz

DAA

**Universidad de Puerto Rico  
Recinto de Río Piedras  
Facultad de Ciencias Naturales  
Programa de Nutrición y Dietética**

## **PRONTUARIO**

<b>TÍTULO DEL CURSO</b>	:	Applied Nutrition Research
<b>CODIFICACIÓN</b>	:	NUTR 6XXX
<b>CANTIDAD DE HORAS/CRÉDITO</b>	:	45 horas / Tres créditos
<b>PRERREQUISITOS, CORREQUISITOS Y OTROS REQUERIMIENTOS:</b>	:	<i>NUTR 4198 or equivalent undergraduate research course, MATE 3026 or equivalent undergraduate statistical analysis course.</i>
<b>DESCRIPCIÓN DEL CURSO:</b>		
Discussion of study design, research concepts and terminology associated with nutrition research. Emphasis is given to interpretation of research and a thorough understanding of the role of research in nutrition and dietetics practice. Discussion of the validity and reliability of instruments/measures used and their alternatives. This course will be offered in face to face, hybrid and online modality.		
<b>OBJETIVOS DE APRENDIZAJE:</b>		
<ol style="list-style-type: none"><li>1. Conduct a systematic review of the scientific literature.</li><li>2. Select appropriate research design to answer research questions and objectives.</li><li>3. Discuss psychometric properties and measurement error of instruments used in nutrition research.</li><li>4. Analyze sources of error in dietary intake measures and alternative biomarkers for nutrition assessment.</li><li>5. Discuss common problems that impact the quality of research studies.</li><li>5. Develop a feasible research proposal following principles of ethical conduct in research.</li><li>6. Interpret statistical analysis results and determine applications for evidence-based practice.</li></ol>		

**LIBRO DE TEXTO PRINCIPAL:**

Van Horn, L., Beto, J. (2019). *Research: Successful Approaches in Nutrition and Dietetics*. (4<sup>th</sup> edition). Academy of Nutrition and Dietetics. ISBN: 978-0-88091-946-3

**BOSQUEJO DE CONTENIDO Y DISTRIBUCIÓN DEL TIEMPO:**

<i>Tema</i>	Distribución del tiempo (horas)		
	Presencial	Híbrido	En línea
<i>Introduction to course – principles of proposal preparation</i>	3	3 (presenciales)	3
<i>Research design and terminology</i>	4	2 (a distancia) + 2 (presencial)	4
<i>Developing and implementing clinical studies in foods and Nutrition</i>	4	4 (presencial)	4
<i>Translational research design</i>	1.5	1.5 (a distancia)	1.5
<i>Nutritional epidemiology</i>	3	3 horas (presenciales)	3
<i>Methods for Outcomes Research and Cost-effectiveness of interventions</i>	3	1.5 (a distancia) + 1.5 (presencial)	3
<i>Dietary assessment instruments and biomarkers</i>	5	3 (a distancia) + 2 (presencial)	5
<i>Biobanks and sources of data</i>	1	1 (a distancia)	1
<i>Instruments to determine body composition</i>	2	2 (presencial)	2
<i>Survey questionnaire and validation</i>	3	1.5 (a distancia) + 1.5 (presencial)	3
<i>Principles of responsible conduct in research</i>	3	3 (a distancia)	3
<i>Statistical analysis of dietary data and data visualization</i>	5	2 (a distancia) + 3 (presencial)	5
<i>Grantsmanship</i>	1.5	1.5 (a distancia)	1.5
<i>Oral presentations</i>	6	6 (presencial)	6
<b>Total de horas contacto</b>	<b>45 horas</b>	<b>45 horas</b> (28 presenciales = 60% y 18 horas a distancia = 30%)	<b>45 horas</b>

**ESTRATEGIAS INSTRUCCIONALES:**

Presencial	Híbrido	En línea
<ul style="list-style-type: none"> <li>• Conferencias del profesor</li> <li>• Lecturas</li> <li>• Tareas individuales</li> <li>• Actividades de avalúo</li> <li>• Actividades prácticas</li> <li>• Presentaciones orales</li> </ul>	<ul style="list-style-type: none"> <li>• Módulos instruccionales en línea</li> <li>• Lecturas de artículos profesionales en línea</li> <li>• Videos instruccionales</li> <li>• Tareas individuales</li> <li>• Actividades de avalúo</li> <li>• Actividades prácticas</li> <li>• Presentaciones orales</li> <li>• Videoconferencias asincrónicas y sincrónicas</li> </ul>	<ul style="list-style-type: none"> <li>• Módulos instruccionales interactivos</li> <li>• Lecturas de artículos profesionales en línea</li> <li>• Videos instruccionales</li> <li>• Tareas individuales</li> <li>• Actividades de avalúo</li> <li>• Actividades prácticas</li> <li>• Presentaciones orales</li> <li>• Videoconferencias asincrónicas</li> <li>• Reuniones sincrónicas</li> </ul>
<b>RECURSOS MÍNIMOS DISPONIBLES O REQUERIDOS:</b>		

Recurso	Presencial	Híbrido	En línea
Cuenta en la plataforma institucional de gestión de aprendizaje (Ej. <i>Moodle</i> )	Institución	Institución	Institución
Cuenta de correo electrónico institucional	Institución	Institución	Institución
Computadora con acceso a internet de alta velocidad o dispositivo móvil con servicio de datos	Estudiante	Estudiante	Estudiante
Programados o aplicaciones: procesador de palabras, hojas de cálculo, editor de presentaciones	Estudiante	Estudiante	Estudiante
Bocinas integradas o externas	No aplica	Estudiante	Estudiante
Cámara web o móvil con cámara y micrófono	No aplica	Estudiante	Estudiante

<b>TÉCNICAS DE EVALUACIÓN:</b>		
Presencial	Híbrido	En línea
Asistencia y participación ...15%	Asistencia a reuniones sincrónicas y participación .....10%	Asistencia y participación a reuniones sincrónicas y asincrónicas.....10%
Asignaciones .....25%	Asignaciones..... 25%	Asignaciones .....20%
Exámenes/quizzes..... 25%	Propuesta de investigación.....20%	Propuesta de investigación.....20%
Presentaciones orales.....15%	Participación en foros de discusión..... 5%	Participación en foros de discusión.....10%
Propuesta de investigación..... 20%	Exámenes/quizzes..... 25%	

	Presentaciones orales..... 15%	Exámenes/quizzes ..... 25%
		Presentaciones orales.....15%
<b>Total.....100%</b>	<b>Total.....100%</b>	<b>Total.....100%</b>

### **ACOMODO RAZONABLE:**

Según la Ley de Servicios Educativos Integrales para Personas con Impedimentos, todo estudiante que requiera acomodo razonable deberá notificarlo al profesor el primer día de clase. Los estudiantes que reciban servicios de Rehabilitación Vocacional deben comunicarse con el (la) profesor(a) al inicio del semestre para planificar el acomodo razonable y el equipo de asistencia necesario conforme a las recomendaciones de la Oficina de Servicios a Estudiantes con Impedimentos (OSEI) del Decanato de Estudiantes. También aquellos estudiantes con necesidades especiales de algún tipo de asistencia o acomodo deben comunicarse con el (la) profesor(a). Si un alumno tiene una discapacidad documentada (ya sea física, psicológica, de aprendizaje o de otro tipo, que afecte su desempeño académico) y le gustaría solicitar disposiciones académicas especiales, éste debe comunicarse con la Oficina de Servicios a Estudiantes con Impedimentos (OSEI) del Decanato de Estudiantes, a fin de fijar una cita para dar inicio a los servicios pertinentes.

### **INTEGRIDAD ACADÉMICA**

La Universidad de Puerto Rico promueve los más altos estándares de integridad académica y científica. El Artículo 6.2 del Reglamento General de Estudiantes de la UPR (Certificación Núm. 13, 2009-2010, de la Junta de Síndicos) establece que “la deshonestidad académica incluye, pero no se limita a: acciones fraudulentas, la obtención de notas o grados académicos valiéndose de falsas o fraudulentas simulaciones, copiar total o parcialmente la labor académica de otra persona, plagiar total o parcialmente el trabajo de otra persona, copiar total o parcialmente las respuestas de otra persona a las preguntas de un examen, haciendo o consiguiendo que otro tome en su nombre cualquier prueba o examen oral o escrito, así como la ayuda o facilitación para que otra persona incurra en la referida conducta”. Cualquiera de estas acciones estará sujeta a sanciones disciplinarias en conformidad con el procedimiento disciplinario establecido en el Reglamento General de Estudiantes de la UPR vigente. Para velar por la integridad y seguridad de los datos de los usuarios, todo curso híbrido y en línea deberá ofrecerse mediante la plataforma institucional de gestión de aprendizaje, la cual utiliza protocolos seguros de conexión y autenticación. El sistema autentica la identidad del usuario utilizando el nombre de usuario y contraseña asignados en su cuenta institucional. El usuario es responsable de mantener segura, proteger, y no compartir su contraseña con otras personas.

### **NORMATIVA SOBRE HOSTIGAMIENTO SEXUAL**

“La Universidad de Puerto Rico prohíbe el discrimen por razón de sexo y género en todas sus modalidades, incluyendo el hostigamiento sexual. Según la Política Institucional contra el Hostigamiento Sexual en la Universidad de Puerto Rico, Certificación Núm. 130, 2014-2015 de la Junta de Gobierno, si un estudiante está siendo o fue afectado por conductas relacionadas a hostigamiento sexual, puede acudir ante la Oficina de Procuraduría Estudiantil, el Decanato de Estudiantes o la Coordinadora de Cumplimiento con Título IX para orientación y/o presentar una queja”.

## SISTEMA DE CALIFICACIÓN

A B C D F

## PLAN DE CONTINGENCIA EN CASO DE UNA EMERGENCIA

En caso de surgir una emergencia o interrupción de clases, el profesor se comunicará vía correo electrónico institucional para coordinar la continuidad del ofrecimiento del curso.

## BIBLIOGRAFÍA

Bruemmer, B., Harris, J., Gleason, P., Boushey, C. J., Sheean, P. M., Archer, S., & Van Horn, L. (2009). Publishing nutrition research: a review of epidemiologic methods. *J Am Diet Assoc*, 109(10), 1728-1737. <https://doi.org/10.1016/j.jada.2009.07.011>

Chan, L., Vasilevsky, N., Thessen, A., McMurry, J., & Haendel, M. (2021). The landscape of nutri-informatics: a review of current resources and challenges for integrative nutrition research. *Database (Oxford)*, 2021. <https://doi.org/10.1093/database/baab003>

Charlton, B. G. (2007). How can the English-language scientific literature be made more accessible to non-native speakers? Journals should allow greater use of referenced direct quotations in 'component-oriented' scientific writing. *Med Hypotheses*, 69(6), 1163-1164. <https://doi.org/10.1016/j.mehy.2007.07.007>

Ebrahim, S. (2016). Metabolomics, nutrition and why epidemiology matters. *Int J Epidemiol*, 45(5), 1307-1310. <https://doi.org/10.1093/ije/dyw304>

Fleischhacker, S. E., Woteki, C. E., Coates, P. M., Hubbard, V. S., Flaherty, G. E., Glickman, D. R., Harkin, T. R., Kessler, D., Li, W. W., Loscalzo, J., Parekh, A., Rowe, S., Stover, P. J., Tagtow, A., Yun, A. J., & Mozaffarian, D. (2020). Strengthening national nutrition research: rationale and options for a new coordinated federal research effort and authority. *Am J Clin Nutr*, 112(3), 721-769. <https://doi.org/10.1093/ajcn/nqaa179>

Friedmann, E., & Gee, N. R. (2019). Critical Review of Research Methods Used to Consider the Impact of Human-Animal Interaction on Older Adults' Health. *Gerontologist*, 59(5), 964-972. <https://doi.org/10.1093/geront/gnx150>

Garner, J. A., Proaño, G. V., Kelley, K., Banna, J. C., Emenaker, N. J., & Sauer, K. (2020). Revising the Academy's Research Priorities: Methods of the Research Priorities and Strategies Development Task Force, 2017-2019. *J Acad Nutr Diet*. <https://doi.org/10.1016/j.jand.2020.10.013>

Gorman, D. M., & Ferdinand, A. O. (2020). High impact nutrition and dietetics journals' use of publication procedures to increase research transparency. *Res Integr Peer Rev*, 5, 12. <https://doi.org/10.1186/s41073-020-00098-9>

Harris, J. E., Boushey, C., Bruemmer, B., & Archer, S. L. (2008). Publishing nutrition research: a review of nonparametric methods, part 3. *J Am Diet Assoc*, 108(9), 1488-1496.  
<https://doi.org/10.1016/j.jada.2008.06.426>

Henderson, A., & Slater, J. (2019). : A Newcomer Nutrition Program Designed Using Action Research Methods. *Ecol Food Nutr*, 58(5), 430-455. <https://doi.org/10.1080/03670244.2019.1636792>

Horne, J. R. (2021). Strengthening the Reporting of Nutritional Genomics Research to Inform Knowledge Translation in Personalized Nutrition. *Lifestyle Genom*, 1-6.  
<https://doi.org/10.1159/000512544>

Johnston, H. E., de Crom, T., Hargrave, C., Adhyaru, P., Woodward, A. J., Pang, S., Ali, A., Coombes, J. S., Keating, S. E., McLean, K., Mayr, H. L., Macdonald, G. A., & Hickman, I. J. (2020). The inter- and intrarater reliability and feasibility of dietetic assessment of sarcopenia and frailty in potential liver transplant recipients: A mixed-methods study. *Clin Transplant*, e14185.  
<https://doi.org/10.1111/ctr.14185>

Linsenmeyer, W., & Waters, J. (2021). Sex and gender differences in nutrition research: considerations with the transgender and gender nonconforming population. *Nutr J*, 20(1), 6.  
<https://doi.org/10.1186/s12937-021-00662-z>

Mansfield, L. (2006). The reading, writing, and arithmetic of the medical literature, part 3: critical appraisal of primary research. *Ann Allergy Asthma Immunol*, 96(1), 7-15; quiz 15-16, 44.  
[https://doi.org/10.1016/S1081-1206\(10\)61033-2](https://doi.org/10.1016/S1081-1206(10)61033-2)

McNamara, A. E., Walton, J., Flynn, A., Nugent, A. P., McNulty, B. A., & Brennan, L. (2020). The Potential of Multi-Biomarker Panels in Nutrition Research: Total Fruit Intake as an Example. *Front Nutr*, 7, 577720. <https://doi.org/10.3389/fnut.2020.577720>

Millar, C. L., Cohen, A., Juraschek, S. P., Foley, A., Shtivelman, M., Mukamal, K. J., & Sahni, S. (2021). The Feasibility of Using Computrition Software for Nutrition Research-A Pilot Study. *Nutrients*, 13(2).  
<https://doi.org/10.3390/nu13020329>

Miller, P. E., Mitchell, D. C., Harala, P. L., Pettit, J. M., Smiciklas-Wright, H., & Hartman, T. J. (2011). Development and evaluation of a method for calculating the Healthy Eating Index-2005 using the Nutrition Data System for Research. *Public Health Nutr*, 14(2), 306-313.  
<https://doi.org/10.1017/S1368980010001655>

O'Connor, A. M., Anderson, K. M., Goodell, C. K., & Sargeant, J. M. (2014). Conducting systematic reviews of intervention questions I: Writing the review protocol, formulating the question and searching the literature. *Zoonoses Public Health*, 61 Suppl 1, 28-38.  
<https://doi.org/10.1111/zph.12125>

Olsen, M. N., Tangvik, R. J., & Halse, A. K. (2020). Evaluation of Nutritional Status and Methods to Identify Nutritional Risk in Rheumatoid Arthritis and Spondyloarthritis. *Nutrients*, 12(11).  
<https://doi.org/10.3390/nu12113571>

Peace, K. E., Yin, J., Rochani, H., Pandeya, S., & Young, S. (2018). A Serious Flaw in Nutrition



Epidemiology: A Meta-Analysis Study. *Int J Biostat*, 14(2). <https://doi.org/10.1515/ijb-2018-0079>

Pelto, G. H. (2020). Applying focused ethnographic methods: examining implications of intracultural diversity for nutrition interventions. *Nutr Rev*, 78(Suppl 2), 71-79. <https://doi.org/10.1093/nutrit/nuaa002>

Sparling, T. M., White, H., Boakye, S., John, D., & Kadiyala, S. (2021). Understanding Pathways Between Agriculture, Food Systems, and Nutrition: An Evidence and Gap Map of Research Tools, Metrics, and Methods in the Last 10 Years. *Adv Nutr*. <https://doi.org/10.1093/advances/nmaa158>

Stein, A. D. (2018). Invited Commentary: Ramadan, Pregnancy, Nutrition, and Epidemiology. *Am J Epidemiol*, 187(10), 2095-2097. <https://doi.org/10.1093/aje/kwy089>

Temple, N. J. (2018). Fat, Sugar, Whole Grains and Heart Disease: 50 Years of Confusion. *Nutrients*, 10(1). <https://doi.org/10.3390/nu10010039>

Original preparado por: Yahaira Torres Rivera, EdD, febrero 2019

Adaptado por: Clarisa Cruz, PhD, 20 abril 2020

Aprobado por: Leticia Fernández Morales, MBA, CPA

Revisado 3 diciembre 2020 Dra. C. Cruz  
DAA

University of Puerto Rico  
Río Piedras Campus  
College of Natural Sciences  
Nutrition and Dietetics Program  
Master of Science in Nutrition and Dietetics

**Course Title:** Community Nutrition Supervised Experiential Learning

**Course Codification:** NUTR 6XXX

**Number of Hours/Credits:** 180 hours per semester / 2 credits

**Course Prerequisites:** NUTR 4170 Methods in Nutrition Education; NUTR 4175 Practicum in Nutrition Education; NUTR 4176 Nutrition in the Community or equivalent, NUTR 6XXX- Global Community Nutrition

**Additional Requirements:** Basic to intermediate skills in computer use

**Descripción del curso:**

Este curso graduado se enfoca en la experiencia de práctica supervisada requerida por el Consejo de Acreditación de Educación en Nutrición y Dietética (ACEND, por sus siglas en inglés). Este es un programa de 360 horas de rotación en las facilidades de servicio a la comunidad, supervisado por un preceptor registrado en Nutrición y Dietética (RD/RDN preceptor). Se llevará a cabo una reunión semanal de discusión con el profesor y el dietista interno.

**Course Description:**

This graduate course focuses on experiential supervised practice as part of the requirements for the dietetic internship as outlined by the Accreditation Council for Education in Nutrition & Dietetics (ACEND). This is a 360 hours rotation to be completed at diverse facilities serving the community, supervised by an RD/RDN preceptor. A weekly debriefing session will be conducted with the professor and the dietetic intern.

**Learning Objectives:** Upon completion of the course NUTR 4XXX, each student should have acquired the knowledge and skills to:

- Integrate cultural competency and ethical principles within the nutrition care process for populations
- Develop and conduct a nutrition education program (health promotion, disease prevention) for a group of nonprofessionals.
- Plan community related nutrition activities within the available community sites for healthy nutrition for children.
- Prepare and present a nutrition lecture on a specific disease state for a general public audience
- Conduct community research activities
- Design and conduct nutrition education trainings for professional staff .

- Collaborate with community programs to promote healthy habits through community gardens.

**ACEND Competencies performance indicators addressed in this course:**

CRDN 1.7 Integrates the principles of cultural competence within own practice and when directing services.

CRDN 2.1 Applies a framework to assess, develop, implement and evaluate products, programs and services

CRDN 2.2 Selects, develops and/or implements nutritional screening tools for individuals, groups or populations.

CRDN 4.1 Utilizes program planning steps to develop, implement, monitor and evaluate community and population programs.

CRDN 4.2 Engages in legislative and regulatory activities that address community, population and global nutrition health and nutrition policy.

CRDN 7.1 Assumes professional responsibilities to provide safe, ethical and effective nutrition services

**Course Outline and Time Distribution**

Units	Topics and Outline	Face to face In-class	Hybrid	Online
1	<b>Introduction to community rotation</b>	8 hrs	8 hours (3 hours face to face and 5 hours online)	8 hrs
2	<b>Department of health -Nutrition Service/ health promotion</b>	220 hrs	220 hours (88 hours face to face and 132 hours online)	220 hrs
3	<b>Federal programs-WIC/ MIC programs</b>	30 hrs	30 hrs (12 hours face to face and 18 hours online)	30 hrs
4	<b>Department of Education-School Lunch Programs</b>	30 hrs	30 hrs (12 hours face to face and 18 hours online)	30hrs.
5	<b>Nutrition and Health Advocacy-</b>	30 hrs	30 hrs	30 hrs

	<b>Comisión de Alimentación y Nutrición de Puerto Rico</b>		(12 hours face to face and 18 hours online)	
<b>6</b>	<b>Supplementary Nutrition Assistance Program (Food stamps)- USDA Food and Nutrition Services</b>	30 hrs	30 hrs (12 hours face to face and 18 hours online)	30 hrs
	Assignments- <i>Completion assigned materials</i>	8 hrs	8 hours 3hours face to face and 5 hours online)	8 hrs
	Exams	4 hrs	4 hrs	4 hrs
	Total	<b>360 hrs</b>	<b>360 hrs</b> 144 hours face to face (40%) and 216 hours online (60%)	<b>360hrs</b>

#### **Instructional Techniques:**

In-class (face to face): Conferences, discussions, workshops, group projects, cooperative learning, field work, assignments

Hybrid: Conferences, videos, discussions, virtual forums, in-classroom or virtual workshops, group projects, cooperative learning, field work, online educational modules, virtual assignments, chats.

Online: Videos, virtual forums, virtual workshops, group projects, cooperative learning, online educational modules, virtual assignments, chats

#### **Minimal Resources Required: (S: Student; I: Institution)**

<b>Resource</b>	<b>In-class</b>	<b>Hybrid</b>	<b>Online</b>
Access to a computer or mobile device with Internet connection	S	S	S
Activated institutional e-mail (upr.edu) account	S/I	S/I	S/I
Microsoft Office or compatible equivalent software (Word, Excel, PowerPoint in particular)	S	S	S
Access to broad-band (high velocity) Internet	S/I	S	S
Speakers and microphone for computer or mobile device (integrated or external)	S	S	S
Web camera or mobile device with camera and	N/A	S	S

microphone			
Skype or equivalent audio-video communication software	N/A	I	I
Institutional account for a learning management system	I	I	I

#### **Evaluation Techniques** (In-class, hybrid, or online)

<b>Evaluation Techniques</b>		
In-class	Hybrid	Online
Oral presentation (10%)	Oral presentations (10%)	Discussion boards (10%)
Assignments: literature searches, annotated bibliographies, calculations (5%)	Assignments: literature searches, annotated bibliographies, calculations (5%)	Assignments: literature searches, annotated bibliographies, calculations (5%)
In class work (5%)	In class work (5%)	Case studies (5%)
Debates (5%)	Discussion boards (5%)	Webinars (5%)
Written project (10%)	Written project (10%)	Critique paper or project (10%)
Quizzes and exams (60%)	Quizzes and exams (60%)	Quizzes and exams (60%)
Attendance and class participation (5%)	Attendance to class, webinar or online meetings (5%)	Participation in asynchronic or synchronic meetings (5%)
In special situations, exams, projects or assignments can be offered to be completed or submitted online, through Moodle or email; Otherwise, all exams will be given on campus.		

#### **Reasonable Accommodation:**

The University of Puerto Rico complies with all state and federal laws and regulations related to discrimination, including “The American Disabilities Act” (ADA law) and Law #51 from the Puerto Rico Commonwealth (Estado Libre Asociado de Puerto Rico). Every student has the right to request and receive reasonable accommodation and Vocational Rehabilitation Services (VRS). Those students with special needs that require some type of particular assistance or accommodation shall explicitly communicate it directly to the professor. Students who are receiving VRS services shall communicate it to the professor at the beginning of the semester so that appropriate planning and the necessary equipment may be requested according to the Disabilities Persons Affairs Office (Oficina de Servicios a Estudiantes con Impedimentos –OSEI) from the Students’ Deanship office. Any other student requiring assistance or special accommodation shall also communicate directly with the professor. Reasonable accommodations requests or services DO NOT exempt the student from complying and fulfilling academic and course related requirements and responsibilities.

#### **Academic Integrity:**

The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Students General Bylaws (Board of Trustees Certification 13, 2009-2010) states that academic dishonesty includes, but is not limited to: fraudulent actions;

obtaining grades or academic degrees by false or fraudulent simulations; copying the whole or part of the academic work of another person; plagiarizing totally or partially the work of another person; copying all or part of another person answers to the questions of an oral or written exam by taking or getting someone else to take the exam on his/her behalf; as well as enabling and facilitating another person to perform the aforementioned behavior. Any of these behaviors will be subject to disciplinary action in accordance with the disciplinary procedure laid down in the UPR Students General Bylaws.

To ensure user data integrity and security, hybrid and distance education courses are offered through the institutional learning management system, which employs secure connection and authentication protocols. The system authenticates the users' identity with the username and password of their institutional accounts. Users are responsible for keeping their password secure and not sharing with others.

**Regulation on discrimination by sex and gender in the form of sexual violence:**

"The University of Puerto Rico prohibits discrimination based on sex, sexual orientation, and gender identity in any of its forms, including that of sexual harassment. According to the Institutional Policy Against Sexual Harassment at the University of Puerto Rico, Certification Num. 130, 2014-2015 from the Board of Governors, any student subjected to acts constituting sexual harassment, must turn to the Office of the Student Ombudsperson, the Office of the Dean of Students, and/or the Coordinator of the Office of Compliance with Title IX for an orientation and/or a formal complaint. "

**Grading System:** Pass/ No Pass

Individual Rotation Projects: 80%

Exams and quizzes: 10 % (80% or more to pass)

Assignments 10%

**Required texts:**

Mayfield BJ. (2020) Communicating Nutrition: The Authoritative Guide. Academy of Nutrition and Dietetics. Chicago, Illinois. **ISBN: 978-0-88091-017-0**

Nnakwe N (2018) Community Nutrition: Planning Health Promotion and Disease Prevention, 3<sup>rd</sup> edition. Jones & Bartlett Learning, Burlington, MA. **ISBN-13: 978-1284108323**

**Bibliography :**

Bruening M, Udarbe AZ, Yakes Jimenez E, Crowley PS, Fredericks DC, Hall LAE (2015) Academy of Nutrition and Dietetics: Standards of Practice and Standards Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Public Health and Community Nutrition :<https://doi.org/10.1016/j.jand.2015.06.374>.

Damião, R., Meneguci, J., da Silva Santos, Á. et al. Nutritional Risk and Quality of Life in Community-Dwelling Elderly: A Cross-Sectional Study. *J Nutr Health Aging* 22, 111–116 (2018). <https://doi.org/10.1007/s12603-017-0935-y>.

Hanson KL, Kolodinsky J Wang W, Morgan EH, Pitts SBJ, Ammerman AS, Sitaker M, Seguin SA (2017). Adults and Children in Low-Income Households that Participate in Cost-Offset Community Supported Agriculture Have High Fruit and Vegetable Consumption. *Nutrients* 9, 726. <https://doi.org/10.3390/nu9070726>.

McClain AC, Ayala GX, Sotres-Alvarez D, Maria Siega-Riz AM, Kaplan RC, Gellma MD, Gallo LC, Van Horn L, Daviglius ML, Perera MJ, Mattei J. (2018) Frequency of Intake and Type of Away-from- Home Foods Consumed Are Associated with Diet Quality in the Hispanic Community Health Study/Study of Latinos (HCHS/SOL), *The Journal of Nutrition*, 148: 453–463, <https://doi.org/10.1093/jn/nxx067>.

Perez-Escamilla R , Bermudez O, Buccini GS, Shiriki K, Lutter CK, Monsivais P. et al. Nutrition disparities and the global burden of malnutrition *BMJ* 2018; 361 :k2252.

#### **Required electronic references:**

Commission of Food and Nutrition of Puerto Rico : Guía Alimentaria y de Actividad Física para Puerto Rico: <http://www.salud.gov.pr/Dept-de-Salud/Documents/Comision%20de%20Alimentacion%20y%20Nutricion%20de%20Puerto%20Rico/GuiaAlimentaria.pdf>.

MyPlate:<http://www.choosemyplate.gov/>; <https://www.nia.nih.gov/health/publication/whats-your-plate>.

National WIC association: <https://www.nwica.org/>

U.S. Department of Health and Human Services and U.S. Department of Agriculture. *2015 – 2020 Dietary Guidelines for Americans*. 8<sup>th</sup> Edition. December 2015. Available at <http://health.gov/dietaryguidelines/2015/guidelines/>.

USDA National Nutrient Database for Standard Reference: <http://ndb.nal.usda.gov/>.

Universidad de Puerto Rico  
Recinto de Río Piedras  
Facultad de Ciencias Naturales  
Programa de Nutrición y Dietética

## PRONTUARIO

<b>TÍTULO DEL CURSO</b>	:	Foodservice Management
<b>CODIFICACIÓN</b>	:	NUTR 6XXX
<b>CANTIDAD DE HORAS/CRÉDITO</b>	:	45 horas / Tres créditos
<b>PRERREQUISITOS, CORREQUISITOS Y OTROS REQUISITOS:</b>	:	NUTR 4055, NUTR 4068, NUTR 4075, NUTR 4076, NUTR 4086
<b>DESCRIPCIÓN DEL CURSO:</b>		
<p>Discusión de los procesos de cada uno de los subsistemas en un servicio de alimentos. Énfasis en la transformación de los recursos a los resultados de cantidad y calidad de los alimentos, satisfacción de los clientes y empleados y responsabilidad financiera. Discusión de los principios gerenciales para lograr las metas y objetivos de forma eficiente y efectiva. El curso se enfoca en las competencias necesarias para Dietistas Registrados que trabajan en el área institucional o comercial en los servicios de alimentos. A través de trabajos en equipos, estudios de caso y proyectos los estudiantes demostrarán su competencia aplicando sus destrezas en los sistemas de servicios de alimentos. Este curso se ofrecerá bajo las modalidades presencial, híbrida y en línea.</p> <p>Discussion of the processes of each of the subsystems in a foodservice. Emphasis on transforming resources into food quality and quantity, customer and employee satisfaction, and financial accountability. Discussion of management principles to achieve projects goals and objectives effectively and efficiently. The course focuses on the competencies of the Registered Dietitian working in the institutional or commercial foodservice sector. Through emphasis on teamwork, case studies, and situational project management students will demonstrate their competency in applying dietetic skills in a foodservice system.</p>		
<b>OBJETIVOS DE APRENDIZAJE:</b>		



1. Examinar los subsistemas de los servicios de alimentos usando la teoría de sistemas.
2. Establecer efectivamente estrategias gerenciales para el logro de los objetivos y metas de los servicios de alimentos.
3. Comparar las teorías de liderazgo y su aplicación en los servicios de alimentos.
4. Contrastar los esfuerzos de sustentabilidad en la industria de alimentos.
5. Examinar las leyes, regulaciones y políticas aplicables a los servicios de alimentos.
6. Evaluar operaciones de servicios de alimentos utilizando los estándares apropiados de control de calidad para ese segmento.
7. Examinar cómo la calidad y productividad tiene un efecto en el control de costos de los servicios de alimentos.
8. Analizar la productividad en diferentes unidades de trabajo en las operaciones de servicios de alimentos.
9. Analizar el impacto de la globalización en las operaciones de servicios de alimentos.

#### **LIBRO DE TEXTO PRINCIPAL:**

Gregoire, M. (2017). Foodservice Organizations: A Managerial and System Approach, (9<sup>th</sup> ed.) New Jersey: Pearson. ISBN: 978-0134038940

#### **BOSQUEJO DE CONTENIDO Y DISTRIBUCIÓN DEL TIEMPO:**

Tema	Distribución del tiempo		
	Presencial	Híbrido	En línea
Parte I - Fundamentos			
Tema 1: Enfoque de Sistema para los Servicios de Alimentos	2 horas	1 hora presencial + 1 hora a distancia	2 horas
Tema 2: Control de Calidad	3 horas	1.5 horas presenciales + 1.5 horas a distancia	3 horas
Tema 3: Menú	2 horas	2 horas presenciales	2 horas
Tema 4: Higiene y Seguridad de Alimentos	3 horas	1.5 horas presenciales + 1.5 horas a distancia	3 horas
Tema 5: Conservación de Recursos	3 horas	3 horas a distancia	3 horas
Examen Parte I	2 horas	2 horas presenciales	2 horas
Parte II - Subsistemas Operacionales			
Tema 1: Planificación y Diseño	3 horas	3 horas a distancia	3 horas
Tema 2: Compra	3 horas	3 horas a distancia	3 horas
Tema 3: Producción	3 horas	3 horas a distancia	3 horas

Tema 4: Distribución y Servicio	2 horas	2 horas a distancia	2 horas
Examen Parte II	2 horas	2 horas presenciales	2 horas
Parte III - Funciones Gerenciales			
Tema 1: Diseño Organizacional	3 horas	3 horas a distancia	3 horas
Tema 2: Liderazgo	3 horas	3 horas a distancia	3 horas
Tema 3: Toma de Decisiones	3 horas	3 horas a distancia	3 horas
Tema 4: Recursos Humanos	3 horas	3 horas presenciales	3 horas
Tema 5: Recursos Financieros	3 horas	3 horas a presenciales	3 horas
Examen Parte III	2 horas	2 horas presenciales	2 horas
Total de horas contacto	45 horas	45 horas (18 horas presenciales = 40% y 27 horas a distancia = 60%)	45 horas

### ESTRATEGIAS INSTRUCCIONALES:

Presencial	Híbrido	En línea
<ul style="list-style-type: none"> <li>● Conferencias del profesor</li> <li>● Lecturas</li> <li>● Trabajos en grupo</li> <li>● Tareas individuales</li> <li>● Actividades de avalúo</li> <li>● Actividades prácticas</li> <li>● Presentaciones orales</li> <li>● Exámenes/Pruebas cortas</li> </ul>	<ul style="list-style-type: none"> <li>● Módulos instruccionales en línea</li> <li>● Lecturas de artículos profesionales en línea</li> <li>● Videos instruccionales</li> <li>● Trabajos en grupo</li> <li>● Tareas individuales</li> <li>● Actividades de avalúo</li> <li>● Actividades prácticas</li> <li>● Presentaciones orales</li> <li>● Videoconferencias asincrónicas y sincrónicas</li> <li>● Exámenes/Pruebas cortas</li> </ul>	<ul style="list-style-type: none"> <li>● Módulos instruccionales interactivos</li> <li>● Lecturas de artículos profesionales en línea</li> <li>● Videos instruccionales</li> <li>● Trabajos en grupo</li> <li>● Tareas individuales</li> <li>● Actividades de avalúo</li> <li>● Actividades prácticas</li> <li>● Presentaciones orales</li> <li>● Videoconferencias asincrónicas</li> <li>● Reuniones sincrónicas</li> <li>● Exámenes/Pruebas cortas</li> </ul>

### RECURSOS MÍNIMOS DISPONIBLES O REQUERIDOS:

Recurso	Presencial	Híbrido	En línea
Cuenta en la plataforma institucional de gestión de aprendizaje (Ej. Moodle)	Institución	Institución	Institución
Cuenta de correo electrónico institucional (upr.edu)	Institución	Institución	Institución
Computadora con acceso a internet de alta velocidad o dispositivo móvil con servicio de datos	Estudiante	Estudiante	Estudiante

Programados o aplicaciones: procesador de palabras, hojas de cálculo, editor de presentaciones	Estudiante	Estudiante	Estudiante
Bocinas integradas o externas	No aplica	Estudiante	Estudiante
Cámara web o móvil con cámara y micrófono	No aplica	Estudiante	Estudiante

### TÉCNICAS DE EVALUACIÓN:

Presencial	Híbrido	En línea
Proyectos 40% Exámenes/pruebas corta 50% Presentaciones orales 10% <b>Total 100%</b>	Proyectos 40% Exámenes/pruebas cortas 50% Presentaciones orales 10% <b>Total 100%</b>	Proyectos 40% Exámenes/pruebas cortas 50% Presentaciones virtuales 10% <b>Total 100%</b>

### ACOMODO RAZONABLE:

Según la Ley de Servicios Educativos Integrales para Personas con Impedimentos, todo estudiante que requiera acomodo razonable deberá notificarlo al profesor el primer día de clase. Los estudiantes que reciban servicios de Rehabilitación Vocacional deben comunicarse con el (la) profesor(a) al inicio del semestre para planificar el acomodo razonable y el equipo de asistencia necesario conforme a las recomendaciones de la Oficina de Servicios a Estudiantes con Impedimentos (OSEI) del Decanato de Estudiantes. También aquellos estudiantes con necesidades especiales de algún tipo de asistencia o acomodo deben comunicarse con el (la) profesor(a). Si un alumno tiene una discapacidad documentada (ya sea física, psicológica, de aprendizaje o de otro tipo, que afecte su desempeño académico) y le gustaría solicitar disposiciones académicas especiales, éste debe comunicarse con la Oficina de Servicios a Estudiantes con Impedimentos (OSEI) del Decanato de Estudiantes, a fin de fijar una cita para dar inicio a los servicios pertinentes.

### INTEGRIDAD ACADÉMICA

La Universidad de Puerto Rico promueve los más altos estándares de integridad académica y científica. El Artículo 6.2 del Reglamento General de Estudiantes de la UPR (Certificación Núm. 13, 2009-2010, de la Junta de Síndicos) establece que “la deshonestidad académica incluye, pero no se limita a: acciones fraudulentas, la obtención de notas o grados académicos valiéndose de falsas o fraudulentas simulaciones, copiar total o parcialmente la labor académica de otra persona, plagiar total o parcialmente el trabajo de otra persona, copiar total o parcialmente las respuestas de otra persona a las preguntas de un examen, haciendo o consiguiendo que otro tome en su nombre cualquier prueba o examen oral o escrito, así como la ayuda o facilitación para que otra persona incurra en la referida conducta”. Cualquiera de estas acciones estará sujeta a sanciones disciplinarias en conformidad con el procedimiento disciplinario establecido en el Reglamento General de Estudiantes de la UPR vigente. Para velar por la integridad y seguridad de los datos de los usuarios, todo curso híbrido y en línea deberá ofrecerse mediante la plataforma institucional de gestión de aprendizaje, la cual utiliza

protocolos seguros de conexión y autenticación. El sistema autentica la identidad del usuario utilizando el nombre de usuario y contraseña asignados en su cuenta institucional. El usuario es responsable de mantener segura, proteger, y no compartir su contraseña con otras personas.

## **NORMATIVA SOBRE HOSTIGAMIENTO SEXUAL**

“La Universidad de Puerto Rico prohíbe el discrimen por razón de sexo y género en todas sus modalidades, incluyendo el hostigamiento sexual. Según la Política Institucional contra el Hostigamiento Sexual en la Universidad de Puerto Rico, Certificación Núm. 130, 2014-2015 de la Junta de Gobierno, si un estudiante está siendo o fue afectado por conductas relacionadas a hostigamiento sexual, puede acudir ante la Oficina de Procuraduría Estudiantil, el Decanato de Estudiantes o la Coordinadora de Cumplimiento con Título IX para orientación y/o presentar una queja”.

## **SISTEMA DE CALIFICACIÓN**

A B C D F

## **PLAN DE CONTINGENCIA EN CASO DE UNA EMERGENCIA**

En caso de ocurrir una emergencia el profesor se comunicará a través del correo electrónico institucional o por vía telefónica para coordinar la continuidad del curso.

## **BIBLIOGRAFÍA**

Blankenship, J. (2020). Food system sustainability: An academy advocacy priority. *Journal of the Academy of Nutrition and Dietetics*, 120(6), 1054-1056. <https://doi.org/10.1016/j.jand.2020.02.019>

Carino, S., Porter, J., Malekpour, S. & Collins, J. (2020). Environmental Sustainability of Hospital Foodservice across the Food Supply Chain: A Systematic Review. *Journal of the Academy of Nutrition and Dietetics*, 120(5), 825-873.

Doley, J., Clark, K. & Roper, S. (2019). Academy of Nutrition and Dietetics: Revised 2019 Standards of Professional Performance for Registered Dietitian Nutritionists in Clinical Nutrition Management. *Journal of the Academy of Nutrition and Dietetics*, 119(9), 1545-1560.

Gearan, E.C. (2020). Updated nutrition standards have Significantly Improved the Nutritional Quality of School Lunches and Breakfasts. *Journal of the Academy of Nutrition and Dietetics*, 120(3), 363-370.

Iufer, J. (2019). A Novel Model for Flexible Staffing in Unionized Healthcare Foodservice Departments. *Journal of the Academy of Nutrition and Dietetics*, 119(9), SA55.

Patten, E. (2019). A leadership taxonomy for clinical dietetics practice. *Journal of the Academy of Nutrition and Dietetics*, 119(3), 369-373.  
[https://jandonline.org/article/S2212-2672\(17\)31001](https://jandonline.org/article/S2212-2672(17)31001)

Phillips, W., Janowski, M., Brennan, H. & Leger, G. (2019). Analyzing Registered Dietitian Nutritionist Productivity Benchmarks for Acute Care Hospitals. *Journal of the Academy of Nutrition and Dietetics*, 119(12), 1988-1991.

Ross, J. (2020). Explore: Empower, expand and promote leadership opportunities, resources, and education in healthcare. *Journal of the Academy of Nutrition and Dietetics*, 120(10), 121. <https://doi.org/10.1016/j.jand.2020.08.039>

Sochacki, P. (2017). The secret recipe to leadership and career pathways success in dietetics. *Journal of the Academy of Nutrition and Dietetics*, 117(9), A37. [https://jandonline.org/article/S2212-2672\(17\)30911-5/fulltext](https://jandonline.org/article/S2212-2672(17)30911-5/fulltext).

Spiker, M., Knoblock-Hahn, A., Brown, K., Sauer, K. et.al. (2020). Cultivating sustainable, resilient, and healthy food and water systems: A nutrition-focused framework for action. *Journal of the Academy of Nutrition and Dietetics*, 120(6) 1057-1067. <https://doi.org/10.1016/j.jand.2020.02.018>

Revistas electrónicas:

*Food Management*, <http://food-management.com/>

*Journal of Food Protection*, [www.foodprotection.org](http://www.foodprotection.org)

*Journal of the Academy of Nutrition and Dietetics*, <http://www.andjnl.org/>

*Restaurant Magazine*, <http://www.restaurantmagazine.com/>

Original preparado por: Yahaira Torres Rivera, EdD, febrero 2019

Adaptado por: Clarisa Cruz, PhD, 20 abril 2020

Aprobado por: Leticia Fernández Morales, MBA, CPA

Revisado 3 diciembre 2020 Dra. C. Cruz

DAA

University of Puerto Rico  
Río Piedras Campus  
College of Natural Sciences  
Nutrition and Dietetics Program  
Master of Science in Nutrition and Dietetics

**Course Title:** Medical Nutrition Therapy and Pathophysiology

**Course Codification:** NUTR 6XXX

**Number of Hours/Credits:** 3 hour per week / 3 credits/45 hours

**Pre-requisites:** NUTR 4158, NUTR 4042; NUTR 4165, NUTR 4169

**Additional Requirements:** Basic to intermediate skills in computer use

**Descripción del curso:**

Este curso graduado se enfoca en la integración de las teorías y principios del cuidado médico nutricional con la práctica clínica. Los estudios de casos se utilizarán para ayudar a los estudiantes a lograr la integración y la aplicación de conocimientos en nutrición, dietética, fisiología y metabolismo, con la meta de desarrollar estudiantes que puedan planificar y manejar el plan de cuidado nutricional de una variedad de pacientes usando un enfoque de pensamiento crítico para el cuidado médico nutricional basado en evidencia. Este curso se podrá ofrecer en alguna de las siguientes modalidades: presencial, híbrido o en línea.

**Course Description:**

This graduate course focuses on the integration of the theories and principles of medical nutrition therapy into clinical practice. Case studies will be used to help students integrate and apply their knowledge of nutrition, dietetics, metabolism, and physiology, with the ultimate goal of producing students who can effectively plan and manage the nutritional care of a variety of patients using a critical thinking approach to evidence-based medical nutrition therapy. This course will be offered in one of the following modalities: face to face, hybrid and online.

**Learning Objectives:** Upon completion of the course NUTR 46XX, each student should have acquired the knowledge and skills to:

- Relate the theoretical bases for nutrition/medical intervention strategies with the anatomical, physiological and/or biochemical changes of selected diseases/conditions
- Integrate the theories and principles of medical nutrition therapy into clinical practice
- Use critical thinking skills to evaluate social, anthropometric, nutritional, medical, laboratory, pharmacologic and other relevant patient data/information for all assigned case studies and care plans and recommend appropriate intervention strategies
- Develop and justify appropriate recommendations for the management of selected

diseases/conditions

- Understand and use medical terminology and appropriate documentation styles to communicate patient status with other health care professionals
- Develop skills in using medical reference materials, including evidence-based medicine/analysis databases, and begin to build a professional library
- Practice the process of providing nutritional care, problem solving skills.

**ACEND Competencies and Practice indicators addressed in this course:**

CRDN 1.1 Applies an understanding of environmental, molecular factors (e.g. genes, proteins, metabolites) and food in the development and management of disease.

CRDN 1.5 Applies knowledge of pathophysiology and nutritional biochemistry to physiology, health and disease.

CRDN 1.8 Applies knowledge of pharmacology to recommend, prescribe and administer medical nutrition therapy.

CRDN 1.9 Applies an understanding of the impact of complementary and integrative nutrition on drugs, disease, health and wellness.

CRDN 1.10 Applies knowledge of math and statistics.

CRDN 1.11 Applies knowledge informed terminology when communicating with individuals, groups and other health professionals.

CRDN 1.13 Demonstrates computer skills and uses nutrition informatics in the decision-making process.

CRDN 1.14 Integrates knowledge of nutrition and physical activity in the provision of nutrition care across the life cycle.

CRDN 2.3 Utilizes the nutrition care process with individuals, groups or populations in a variety of practice settings.

CRDN 2.4 Implements or coordinates nutritional interventions for individuals, groups or populations.

**Required Textbook:** Nelms M, Sucher KP (2020). Nutrition Therapy and Pathophysiology, 4th edition. Cengage Learning, KY, USA. ISBN-13: 9780357390597.

## Course Outline and Time Distribution

Units	Topics and Outline	Time Distribution		
		Face to face In-class	Hybrid	Online
<b>I</b>	<b>1. Nutrition care Process</b> Assessment of intake Clinical, dietary, anthropometric assessment Nutrition focused-physical evaluation Nutrition Diagnosis and Evaluation	4 hrs.	4 hours (1 hours face to face and 3 hours online)	4 hrs.
<b>II</b>	<b>2. Nutrition in Life cycle pathologies</b> Pathophysiology in pregnancy, infancy, childhood, adolescents, adult, and elderly	8 hrs.	8 hours (2 hours face to face and 6 hours online)	8 hrs.
<b>III</b>	<b>3. Nutrition for Weight Management</b>	4 hrs.	4 hours (1 hours face to face and 3 hours online)	4 hrs.
<b>IV</b>	<b>4. Medical Nutrition Therapy in diverse conditions: hepatobiliary, gastrointestinal diseases, endocrine, renal, circulatory, cardiovascular systems</b>	8 hrs.	8 hours (2 hours face to face and 6 hours online)	8 hrs.
<b>V</b>	<b>5. Medical Nutrition Therapy in hypermetabolic conditions and immunosuppressive condition: cancer, HIV, allergies, arthritis</b>	8 hrs.	8 hours (2 hours face to face and 6 hours online)	8 hrs.
<b>VI</b>	<b>6. Medical Nutrition Therapy in critical care and enteral and parenteral nutrition</b>	8 hrs.	8 hours (2 hours face to face and 6 hours online)	8 hrs.
<b>VII</b>	7. Exams, quizzes	5	5	5
	Total	<b>45 hrs.</b>	<b>45 hours</b> 18 hours face to face (40%) and 27 hours online (60%)	<b>45 hrs.</b>



**Instructional Technique: May include:**

Face to face	Hybrid	Online
<ul style="list-style-type: none"> <li>• Conferences</li> <li>• Discussions</li> <li>• Lectures</li> <li>• Workshops</li> <li>• Group projects</li> <li>• Individual projects</li> <li>• Student appraisal</li> <li>• Cooperative learning</li> <li>• Field experience</li> <li>• Assignments</li> <li>• Exams/quizzes</li> <li>• Oral presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Instructional Modules-online</li> <li>• Class recordings</li> <li>• Synchronic sessions</li> <li>• Readings</li> <li>• Videos</li> <li>• Virtual Discussion Boards</li> <li>• Group projects</li> <li>• Individual projects</li> <li>• Student appraisal</li> <li>• Cooperative learning</li> <li>• Practical experiences</li> <li>• Assignments</li> <li>• Exams/quizzes</li> <li>• Online oral presentations</li> <li>• Chats</li> </ul>	<ul style="list-style-type: none"> <li>• Instructional Modules-interactive</li> <li>• Class recordings</li> <li>• Synchronic sessions</li> <li>• Readings</li> <li>• Videos</li> <li>• Virtual Discussion Boards</li> <li>• Group projects</li> <li>• Individual projects</li> <li>• Student appraisal</li> <li>• Cooperative learning</li> <li>• Practical experiences</li> <li>• Assignments</li> <li>• Exams/quizzes</li> <li>• Online oral presentations</li> <li>• Chats</li> </ul>

**Minimal Resources Required: (S: Student; I: Institution)**

Resource	Face to face	Hybrid	Online
Institutional account for a learning management system (ex. Moodle)	I	I	I
Access to a computer or mobile device with Internet connection	S	S	S
Activated institutional e-mail (upr.edu) account	I	I	I
Microsoft Office or compatible equivalent software (Word, Excel, PowerPoint in particular)	S	S	S
Access to broad-band (high velocity) Internet	S	S	S
Speakers and microphone for computer or mobile device (integrated or external)	S	S	S
Computer with internet access	S	S	S
Web camera or mobile device with camera and microphone	N/A	S	S
Skype or equivalent audio-video communication software	N/A	I	I

**Evaluation Techniques** (face to face, hybrid, or online)

<b>Evaluation Techniques</b>		
<b>Face to face</b>	<b>Hybrid</b>	<b>Online</b>
Oral presentation (10%)	Oral presentations (10%)	Discussion boards (10%)
Assignments: literature searches, annotated bibliographies, calculations (10%)	Assignments: literature searches, annotated bibliographies, calculations (5%)	Assignments: literature searches, annotated bibliographies, calculations (5%)
In class work (5%)	In class work (5%)	Case studies (5%)
Debates (5%)	Discussion boards (5%)	Webinars (5%)
Written project (10%)	Written project (10%)	Critique paper or project (10%)
Quizzes and exams (60%)	Quizzes and exams (60%)	Quizzes and exams (60%)
Attendance and class participation (5%)	Attendance to class, webinar or online meetings (5%)	Participation in a-synchronic or synchronic meetings (5%)
Total: 100%	Total: 100%	Total: 100%

**Reasonable Accommodation:**

The University of Puerto Rico complies with all state and federal laws and regulations related to discrimination, including “The American Disabilities Act” (ADA law) and Law #51 from the Puerto Rico Commonwealth (Estado Libre Asociado de Puerto Rico). Every student has the right to request and receive reasonable accommodation and Vocational Rehabilitation Services (VRS). Those students with special needs that require some type of particular assistance or accommodation shall explicitly communicate it directly to the professor. Students who are receiving VRS services shall communicate it to the professor at the beginning of the semester so that appropriate planning and the necessary equipment may be requested according to the Disabilities Persons Affairs Office (Oficina de Servicios a Estudiantes con Impedimentos - OSEI) from the Students’ Deanship office. Any other student requiring assistance or special accommodation shall also communicate directly with the professor. Reasonable accommodations requests or services DO NOT exempt the student from complying and fulfilling academic and course related requirements and responsibilities.

**Academic Integrity:**

The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Students General Bylaws (Board of Trustees Certification 13, 2009-2010) states that academic dishonesty includes, but is not limited to: fraudulent actions; obtaining grades or academic degrees by false or fraudulent simulations; copying the whole or part of the academic work of another person; plagiarizing totally or partially the work of another person; copying all or part of another person answers to the questions of an oral or written exam by taking or getting someone else to take the exam on his/her behalf; as well as enabling and facilitating another person to perform the aforementioned behavior. Any of these behaviors will be subject to disciplinary action in accordance with the disciplinary procedure laid down in the UPR Students General Bylaws.

To ensure user data integrity and security, hybrid and distance education courses are offered through the institutional learning management system, which employs secure connection and authentication protocols. The system authenticates the users' identity with the username and password of their institutional accounts. Users are responsible for keeping their password secure and not sharing with others.

**Regulation on discrimination by sex and gender in the form of sexual violence:**

"The University of Puerto Rico prohibits discrimination based on sex, sexual orientation, and gender identity in any of its forms, including that of sexual harassment. According to the Institutional Policy Against Sexual Harassment at the University of Puerto Rico, Certification Num. 130, 2014-2015 from the Board of Governors, any student subjected to acts constituting sexual harassment, must turn to the Office of the Student Ombudsperson, the Office of the Dean of Students, and/or the Coordinator of the Office of Compliance with Title IX for an orientation and/or a formal complaint. "

**Grading System:** A, B, C, D, F

**Contingency plans in case of emergency:**

In special situations meetings, modules, exams, projects or assignments can be offered to be completed or submitted online, through Moodle or email; Otherwise, all exams will be given on campus.

**Bibliography:**

Academy of Nutrition and Dietetics (2015) eNCPT Student Companion Guide. Chicago, IL.

Escott-Stump S. (2020) Nutrition and Diagnosis-Related Care, Ninth Edition. Academy of Nutrition and Dietetics. Chicago, Illinois.

Gibney MJ, Marinos E, Ljungqvist O, Dowsett J (2005). Clinical Nutrition, The Nutrition Society, Blackwell, Iowa, USA. ISBN-13: 9780632056262.

Gropper, S. S. & Smith, J. L. (2018). Advanced nutrition and human metabolism (7th ed.). Belmont, CA, USA: Wadsworth, Cengage Learning. ISBN-13: 978-1305627857.

Kane K, Prelack KA (2018). Advanced Medical Nutrition Therapy- English version- 1st Ed. Jones & Bartlett Learning; Burlington, MA, USA. ISBN-13: 978-1284042634.

Lieberman M, Peet A (2017). Marks' Basic Medical Biochemistry: A Clinical Approach, 5<sup>th</sup> edition, Wolters Kluwer Health- Lippincott Williams & Wilkins, Baltimore MD, USA. ISBN-13: 9781496387721.

Mahan, L.K., Raymond, J.L. (2020). Krause's Food and the Nutrition Care Process, 15th ed. W.B. Saunders, Co. Phila, PA. USA. ISBN-13: 978-0323636551.

Thompson JJ, Manore M, Vaughan L (2017). The Science of Nutrition, 4th Edition, Pearson Ed, AZ. ISBN-13: 978-0134166001.

#### **Online references:**

Academy of Nutrition and Dietetics. (2010) Position of the American Dietetic Association: Integration of Medical Nutrition Therapy and Pharmacotherapy. Jun 110; 6:P950-956. DOI:<https://doi.org/10.1016/j.jada.2010.04.017>.<http://www.adajournal.org/article/S0002-8223%2810%2900422-0/abstract>.

Academy of Nutrition and Dietetics. (2016) Evidence Analysis Manual: Steps in the Academy Evidence Analysis Process. Chicago, Illinois. ISBN: 978-0-88091-429-1  
[https://www.andeanal.org/vault/2440/web/files/2016 April EA Manual.pdf](https://www.andeanal.org/vault/2440/web/files/2016%20April%20EA%20Manual.pdf)

Academy of Nutrition and Dietetics. (2009) Position of the American Dietetic Association: Weight Management. J Am Diet Assoc. 109:330-346.  
<https://www.andeanal.org/files/files/WeightManagement.pdf>

Academy of Nutrition and Dietetics, (2019) The Chicago Dietetics Association and The South Suburban Dietetic Association, Nutrition Care Manual, Chicago, Ill.  
<http://www.nutritioncaremanual.org>

Academy of Nutrition and Dietetics. (2017) The Academy of Nutrition and Dietetics Nutrition Care Manual® (NCM), <https://www.nutritioncaremanual.org/about-ncm>

#### **Websites:**

Commission of Food and Nutrition of Puerto Rico : Guía Alimentaria y de Actividad Física para Puerto Rico: <http://www.salud.gov.pr/Dept-de-Salud/Documents/Comision%20de%20Alimentacion%20y%20Nutricion%20de%20Puerto%20Rico/GuiaAlimentaria.pdf>.

USDA National Nutrient Database for Standard Reference: <http://ndb.nal.usda.gov/>

MyPlate:<http://www.choosemyplate.gov/>; <https://www.nia.nih.gov/health/publication/whats-your-plate>.

University of Puerto Rico  
Río Piedras Campus  
College of Natural Sciences  
Nutrition and Dietetics Program  
Master of Science in Nutrition and Dietetics

**Course Title:** Nutrition Assessment Diagnosis

**Course Codification:** NUTR 6XXX

**Number of Hours/Credits:** 3 hour per week / 3 credits / 45 hours

**Pre-requisites:** NUTR 4158, NUTR 4042; NUTR 4165, NUTR 4166, NUTR 4169

**Additional Requirements:** Basic to intermediate skills in computer use

**Descripción del curso:**

Este curso graduado se enfoca en el análisis de las destrezas avanzadas en los métodos de evaluación nutricional para individuos y en las comunidades. Se evaluarán las mediciones y la interpretación del examen físico enfocado a la nutrición, la interacción de nutrimentos y medicamentos y los parámetros de laboratorios. Se discutirán los métodos de diagnósticos para malnutrición y deficiencias nutrimentales, incluyendo las características clínicas utilizadas para identificar y determinar el grado de malnutrición. Este curso se podrá ofrecer en alguna de las siguientes modalidades: presencial, híbrido o en línea.

**Course Description:**

This graduate course focuses on the analyses of advanced skills and evolving methods of nutritional assessment for individuals and in the community. Measurement and interpretation of nutrition-focused physical examination, medication interactions and laboratory parameters will be assessed. Diagnosing malnutrition and nutrient deficiencies, including clinical characteristics used to identify and label the degree of malnutrition will be discussed. This course will be offered in one of the following modalities: face to face, hybrid and online.

**Learning Objectives:** Upon completion of the course NUTR 46XX, each graduate student should have acquired the knowledge and skills to:

- Describe and explain established scientific terminology, methodology and evidence grading system that is used within dietetic and nutrition research.
- Complete a comprehensive nutrition assessment, including anthropometric measurements, body composition measurements, and biochemical and dietary analyses.
- Identify and solve problems that can arise at diet interventions, design of a study diet and within surveys of dietary and nutrition intake.
- Calculate energy requirements and energy expenditure for adult and pediatric populations.

- Successfully identify and document malnutrition based on the Subjective Global Assessment tool.
- Assess the nutritional status of children by correctly documenting height and weight data on growth charts.
- Identify relevant drug and nutrient interactions.
- Apply the Nutrition Care Process for nutrition assessment, diagnosis, and treatment plans.
- Develop skills in using medical reference materials, including evidence-based medicine/analysis databases.
- Practice the process of providing nutritional care, problem solving skills.

**ACEND Competencies and Practice indicators addressed in this course:**

CRDN 1.8 Applies knowledge of pharmacology to recommend, prescribe and administer medical nutrition therapy.

CRDN 1.9 Applies an understanding of the impact of complementary and integrative nutrition on drugs, disease, health and wellness.

CRDN 1.11 Applies knowledge informed terminology when communicating with individuals, groups and other health professionals.

CRDN 2.3 Utilizes the nutrition care process with individuals, groups or populations in a variety of practice settings.

CRDN 2.4 Implements or coordinates nutritional interventions for individuals, groups or populations.

**Required text:**

Charney P & Malone A. (2016) Academy of Nutrition and Dietetics Pocket Guide to Nutrition Assessment, 3rd Ed. Academy of Nutrition and Dietetics Ed. Chicago, Illinois. ISBN-13: 978-0880914895.

**Course Outline and Time Distribution:**

Units	Topics and Outline	Face to face In-class	Hybrid	Online
I	<b>1. Nutrition assessment basics</b>	4 hrs.	4 hours (1 hours face to face and 3 hours online)	4 hrs.
	Importance of nutrition assessment Subjective Global Assessment			
	Improving assessment skills			
II	<b>2. Assessment of food intake for individuals and communities</b>	8 hrs.	8 hours (2 hours face to face and 6 hours online)	8 hrs.
	Food and nutrient intake of individuals and populations; Environmental and individual factors affecting food intake			
III	<b>3. Food-medication interactions</b>	4 hrs.	4 hours	4 hrs.

			(1 hours face to face and 3 hours online)	
<b>IV</b>	<b>4. Anthropometric data collection and biochemical parameter interpretation</b>	8 hrs.	8 hours (2 hours face to face and 6 hours online)	8 hrs.
<b>V</b>	<b>5. Clinical data collection and interpretation; nutrition-focused physical examination</b>	8 hrs.	8 hours (2 hours face to face and 6 hours online)	8 hrs.
<b>VI</b>	<b>6. Surveillance and monitoring data collection and interpretation in communities</b>	8 hrs.	8 hours (2 hours face to face and 6 hours online)	8 hrs.
<b>VII</b>	<b>7. Exams, quizzes</b>	<b>5</b>	<b>5</b>	<b>5</b>
	Total	<b>45 hrs.</b>	<b>45 hours</b> 18 hours face to face (40%) and 27 hours online (60%)	<b>45 hrs.</b>

#### Instructional Techniques:

Face to face	Hybrid	Online
<ul style="list-style-type: none"> <li>• Conferences</li> <li>• Discussions</li> <li>• Lectures</li> <li>• Workshops</li> <li>• Group projects</li> <li>• Individual projects</li> <li>• Student appraisal</li> <li>• Cooperative learning</li> <li>• Field experience</li> <li>• Assignments</li> <li>• Exams/quizzes</li> <li>• Oral presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Instructional Modules-online</li> <li>• Class recordings</li> <li>• Synchronic sessions</li> <li>• Readings</li> <li>• Videos</li> <li>• Virtual Discussion Boards</li> <li>• Group projects</li> <li>• Individual projects</li> <li>• Student appraisal</li> <li>• Cooperative learning</li> <li>• Practical experiences</li> <li>• Assignments</li> <li>• Exams/quizzes</li> <li>• Online oral presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Instructional Modules-interactive</li> <li>• Class recordings</li> <li>• Synchronic sessions</li> <li>• Readings</li> <li>• Videos</li> <li>• Virtual Discussion Boards</li> <li>• Group projects</li> <li>• Individual projects</li> <li>• Student appraisal</li> <li>• Cooperative learning</li> <li>• Practical experiences</li> <li>• Assignments</li> <li>• Exams/quizzes</li> </ul>

	<ul style="list-style-type: none"> <li>• Chats</li> </ul>	<ul style="list-style-type: none"> <li>• Online oral presentations</li> <li>• Chats</li> </ul>
--	---	--

**Minimal Resources Required: (S: Student; I: Institution)**

Resource	Face to face	Hybrid	Online
Institutional account for a learning management system (ex. Moodle)	I	I	I
Access to a computer or mobile device with Internet connection	S	S	S
Activated institutional e-mail (upr.edu) account	I	I	I
Microsoft Office or compatible equivalent software (Word, Excel, PowerPoint in particular)	S	S	S
Access to broad-band (high velocity) Internet	S	S	S
Speakers and microphone for computer or mobile device (integrated or external)	S	S	S
Computer with internet access	S	S	S
Web camera or mobile device with camera and microphone	N/A	S	S
Skype or equivalent audio-video communication software	N/A	I	I

**Evaluation Techniques (Face to face, hybrid, or online)**

Evaluation Techniques		
Face to face	Hybrid	Online
Oral presentation (10%)	Oral presentations (10%)	Discussion boards (10%)
Assignments: literature searches, annotated bibliographies, calculations (5%)	Assignments: literature searches, annotated bibliographies, calculations (5%)	Assignments: literature searches, annotated bibliographies, calculations (5%)
In class work (5%)	In class work (5%)	Case studies (5%)
Debates (5%)	Discussion boards (5%)	Webinars (5%)
Written project (10%)	Written project (10%)	Critique paper or project (10%)
Quizzes and exams (60%)	Quizzes and exams (60%)	Quizzes and exams (60%)
Attendance and class participation (5%)	Attendance to class, webinar or online meetings (5%)	Participation in asynchronic or synchronic meetings (5%)
Total: 100%	Total: 100%	Total: 100%



**REASONABLE ACCOMMODATION:**

The University of Puerto Rico complies with all state and federal laws and regulations related to discrimination, including "The American Disabilities Act" (ADA law) and Law #51 from the Puerto Rico Commonwealth (Estado Libre Asociado de Puerto Rico). Every student has the right to request and receive reasonable accommodation and Vocational Rehabilitation Services (VRS). Those students with special needs that require some type of particular assistance or accommodation shall explicitly communicate it directly to the professor. Students who are receiving VRS services shall communicate it to the professor at the beginning of the semester so that appropriate planning and the necessary equipment may be requested according to the Disabilities Persons Affairs Office (Oficina de Servicios a Estudiantes con Impedimentos –OSEI) from the Students' Deanship office. Any other student requiring assistance or special accommodation shall also communicate directly with the professor. Reasonable accommodations requests or services DO NOT exempt the student from complying and fulfilling academic and course related requirements and responsibilities.

**ACADEMIC INTEGRITY:**

The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Students General Bylaws (Board of Trustees Certification 13, 2009-2010) states that academic dishonesty includes, but is not limited to: fraudulent actions; obtaining grades or academic degrees by false or fraudulent simulations; copying the whole or part of the academic work of another person; plagiarizing totally or partially the work of another person; copying all or part of another person answers to the questions of an oral or written exam by taking or getting someone else to take the exam on his/her behalf; as well as enabling and facilitating another person to perform the aforementioned behavior. Any of these behaviors will be subject to disciplinary action in accordance with the disciplinary procedure laid down in the UPR Students General Bylaws.

To ensure user data integrity and security, hybrid and distance education courses are offered through the institutional learning management system, which employs secure connection and authentication protocols. The system authenticates the users' identity with the username and password of their institutional accounts. Users are responsible for keeping their password secure and not sharing with others.

**REGULATION ON DISCRIMINATION BY SEX AND GENDER IN THE FORM OF SEXUAL VIOLENCE:**

"The University of Puerto Rico prohibits discrimination based on sex, sexual orientation, and gender identity in any of its forms, including that of sexual harassment. According to the Institutional Policy Against Sexual Harassment at the University of Puerto Rico, Certification Num. 130, 2014-2015 from the Board of Governors, any student subjected to acts constituting sexual harassment, must turn to the Office of the Student Ombudsperson, the Office of the Dean of Students, and/or the Coordinator of the Office of Compliance with Title IX for an orientation and/or a formal complaint. "

**Grading System:** A, B, C, D, F

**Contingency plans in case of emergency:**

In special situations meetings, modules, exams, projects or assignments can be offered to be completed or submitted online, through Moodle or email; Otherwise, all exams will be given on campus.

**Bibliography:**

Association of Diabetes Care & Education Specialists. (2020) ADCES Quick Guide to Medications, 10th Ed. Academy of Nutrition and Dietetics Ed. Chicago, Illinois. ISBN: 978-1-881876-58-8.

Academy of Nutrition and Dietetics and American Diabetes Association. Choose Your Foods: Food Lists for Diabetes. ISBN: 978-0-88091-387-4.

Academy of Nutrition and Dietetics and American Diabetes Association. Choose Your Foods: Food Lists for Weight Management. ISBN: 978-0- 88091-389-8.

Academy of Nutrition and Dietetics and American Diabetes Association. Match Your Insulin to Your Carbs, 3rd Edition. ISBN: 978-0- 88091-397-3.

Academy of Nutrition and Dietetics and American Diabetes Association. Count Your Carbs: Getting Started. ISBN: 978-0-88091- 395-9.

Gropper, S. S. & Smith, J. L. (2018). Advanced nutrition and human metabolism (7th ed.). Belmont, CA, USA: Wadsworth, Cengage Learning. ISBN-13: 978-1305627857.

Kane K, Prelack KA (2018). Advanced Medical Nutrition Therapy- English version- 1st Ed. Jones & Bartlett Learning; Burlington, MA, USA. ISBN-13: 978-1284042634.

Lieberman M, Peet A (2017). Marks' Basic Medical Biochemistry: A Clinical Approach, 5th edition, Wolters Kluwer Health- Lippincott Williams & Wilkins, Baltimore MD, USA. ISBN-13: 9781496387721.

Mahan, L.K., Raymond, JL. (2020). Krause's Food and the Nutrition Care Process, 15th ed. W.B. Saunders, Co. Phila, PA. USA. ISBN-13: 978-0323636551.

Mordarski B & Wolff J. (2015) Pediatric Nutrition Focused Physical Exam Pocket Guide. Academy of Nutrition and Dietetics Ed. Chicago Illinois. ISBN: 978-0-88091-497-0.

Mordarski B & Wolff J. (2017) Nutrition Focused Physical Exam Pocket Guide. Academy of Nutrition and Dietetics Ed. Chicago Illinois. ISBN: 978-0-88091-966-1

Nelms M, Sucher KP (2020). Nutrition Therapy and Pathophysiology, 4<sup>th</sup> edition. Cengage Learning, KY, USA. ISBN-13: 9780357390597.

Scott-Stump, S., (2020) Nutrition and Diagnosis-Related Care 9th ed. Academy of Nutrition and Dietetics, Chicago, IL. ISBN:0880910577, 9780880910576.

### **Online references:**

Academy of Nutrition and Dietetics (2017). Adult Nutrition Care Manual: Subscribe at: <https://www.nutritioncaremanual.org/adult-nutrition-care>

Academy of Nutrition and Dietetics (2017). Pediatric Nutrition Care Manual: Subscribe at: <https://www.nutritioncaremanual.org/adult-nutrition-care>.

Academy of Nutrition and Dietetics. Nutrition Care Process Terminology (eNCPT). Electronic version only. Subscribe at <https://www.ncpro.org/>.

Academy of Nutrition and Dietetics. (2010) Position of the American Dietetic Association: Integration of Medical Nutrition Therapy and Pharmacotherapy. Jun 110; 6:P950-956. DOI:<https://doi.org/10.1016/j.jada.2010.04.017>.<http://www.adajournal.org/article/S0002-8223%2810%2900422-0/abstract>.

Academy of Nutrition and Dietetics. (2016) Evidence Analysis Manual: Steps in the Academy Evidence Analysis Process. Chicago, Illinois. ISBN: 978-0-88091-429-1  
[https://www.andeal.org/vault/2440/web/files/2016\\_April\\_EA\\_Manual.pdf](https://www.andeal.org/vault/2440/web/files/2016_April_EA_Manual.pdf)

Academy of Nutrition and Dietetics, (2019) The Chicago Dietetics Association and The South Suburban Dietetic Association, Nutrition Care Manual, Chicago, Ill.  
<http://www.nutritioncaremanual.org>

Academy of Nutrition and Dietetics. (2017) The Academy of Nutrition and Dietetics Nutrition Care Manual® (NCM), <https://www.nutritioncaremanual.org/about-ncm>

### **Websites:**

Commission of Food and Nutrition of Puerto Rico. (2017) Guía Alimentaria y de Actividad Física para Puerto Rico: <http://www.salud.gov.pr/Dept-de-Salud/Documents/Comision%20de%20Alimentacion%20y%20Nutricion%20de%20Puerto%20Rico/GuiaAlimentaria.pdf>.

Mordarski B and Wolff J. Nutrition Focused Physical Exam Pocket Guide. Buy from <http://www.eatrightstore.org/product/924B0333-DBF7-4CAD-9FCF-A127005693E5>.

USDA National Nutrient Database for Standard Reference: <http://ndb.nal.usda.gov/>

MyPlate:<http://www.choosemyplate.gov/>; <https://www.nia.nih.gov/health/publication/whats-your-plate>.

University of Puerto Rico  
Río Piedras Campus  
College of Natural Sciences  
Nutrition and Dietetics Program  
Bachelor of Science in Nutrition and Dietetics

**Course Title:** Pathophysiology of Life Span

**Course Codification:** NUTR 6XXX

**Number of Hours/Credits:** 3 hour per week / 3 credits

**Course Prerequisites:** NUTR 4042, NUTR 4166, NUTR 4169, NUTR 4045

**Additional Requirements:** Basic to intermediate skills in computer use

**Course Description:** The graduate course discusses the life stages of infancy, childhood, adolescence, pregnancy, and older adulthood from physiological, environmental, and behavioral perspectives. This course focuses on the nutritional needs of each life stage to promote overall health and wellbeing of these populations. Nutritional care in the prevention and treatment at different nutrition-related conditions across the lifespan will be discussed. The course can be offered face to face, hybrid or online.

**Descripción del curso:** En el curso graduado se discute las etapas de la infancia, niñez, adolescencia, embarazo y del adulto mayor desde las perspectivas fisiológicas, ambientales y de comportamiento. Este curso se enfoca en los requisitos nutricionales de cada etapa de la vida para promover la salud y el bienestar general en estas poblaciones. Se discutirá el cuidado nutricional en condiciones de salud asociadas a la nutrición. El curso puede ofrecerse de forma presencial, híbrido o en línea.

**Learning Objectives:** Upon completion of the course NUTR 4XXX, each graduate student should have acquired the knowledge and skills to:

- Identify the physiological changes associated with infancy, childhood, adolescence, adulthood, pregnancy and lactation and old age and their impact on nutrition status, in health and disease states.
- Describe the energy and nutrient requirements for populations in each stage of the life cycle.
- Recognize food related problems specific to various stages of the life cycle.
- Identify socioeconomic and cultural factors that affect food intake and nutrition.
- Identify the different diet modifications according to life stage and different health conditions.
- Use the food and nutrient composition of foods knowledge to calculate nutrition needs for effective medical nutrition therapy for individuals with diet-related diseases.
- Design a nutrition care plan for individuals considering physical socioeconomic, financial,

cultural, psychologic, food preferences factors.

- Integrate clinical skills and competency to provide appropriate medical nutrition therapy and other nutrition care in a variety of medical conditions through the life cycle.
- Evaluate professional literature to make ethical evidence-based practice decisions.
- Apply knowledge of the role of environment, food, and lifestyle choices to develop clinical and community interventions to enhance wellness in diverse individuals and groups throughout the life cycle.

**Required textbook:**

Sharlin J. & Sari Edelstein S. (2011) Essentials of Life Cycle Nutrition, First Edition. John and Bartlett Publishers, Sudbury, MA. ISBN: 9780763777920.

**Course Outline and Time Distribution**

Units	Topics and Outline	Face to face	Hybrid	Online
<b>I</b>	<b>1. Nutrition Basics</b>	8 hrs.	8 hours	8 hrs.
	Nutrition and health for all ages		(3 hours face to face and 5 hours online)	
	Physiological changes impacting nutrition status			
	Factors affecting nutrition in age-specific groups			
	Nutrition-related health issues across the lifespan			
<b>II</b>	<b>2. Nutrition in Pregnancy and Lactation</b>	8 hrs.	8 hours	8 hrs.
	Preconception Nutrition		(2 hours face to face and 6 hours online)	
	Nutrition During Pregnancy			
	Nutrition During Lactation			
	Nutrition care for pregnancy complications			
<b>III</b>	<b>3. Infant and Childhood Nutrition.</b>	7 hrs.	7 hours	7 hrs.
	Toddler and preschooler nutrition		(2 hours face to face and 5 hours online)	
	Child and preadolescent nutrition			
	Nutrition care for disease states in infants and children			
<b>IV</b>	<b>4. Adolescent Nutrition</b>	7 hrs.	7 hours	7 hrs.
	Nutrition for early- and late-adolescents		(2 hours face to face and 5 hours online)	
	Nutrition for the young athlete			
	Nutrition care for eating disorders in the youth			
<b>V</b>	<b>5. Adult and Older Adult Nutrition</b>	8 hrs.	8 hours	8 hrs.
	Adult nutrition: Conditions and interventions		(2 hours face to face and 6 hours online)	
	Nutrition and older adults			
	Nutrition care for disease states			
<b>VI</b>	<b>6. Exams, quizzes</b>	7 hrs.	7 hrs.	7 hrs.

			Face to face	
	Total	45 hrs.	45 hours 18 hours face to face (40%) and 27 hours online (60%)	45 hours

### Instructional Techniques:

Face to face	Hybrid	Online
<ul style="list-style-type: none"> <li>• Conferences</li> <li>• Discussions</li> <li>• Lectures</li> <li>• Workshops</li> <li>• Group projects</li> <li>• Individual projects</li> <li>• Student appraisal</li> <li>• Cooperative learning</li> <li>• Field experience</li> <li>• Assignments</li> <li>• Exams/quizzes</li> <li>• Oral presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Instructional Modules-online</li> <li>• Class recordings</li> <li>• Synchronic sessions</li> <li>• Readings</li> <li>• Videos</li> <li>• Virtual Discussion Boards</li> <li>• Group projects</li> <li>• Individual projects</li> <li>• Student appraisal</li> <li>• Cooperative learning</li> <li>• Practical experiences</li> <li>• Assignments</li> <li>• Exams/quizzes</li> <li>• Online oral presentations</li> <li>• Chats</li> </ul>	<ul style="list-style-type: none"> <li>• Instructional Modules-interactive</li> <li>• Class recordings</li> <li>• Synchronic sessions</li> <li>• Readings</li> <li>• Videos</li> <li>• Virtual Discussion Boards</li> <li>• Group projects</li> <li>• Individual projects</li> <li>• Student appraisal</li> <li>• Cooperative learning</li> <li>• Practical experiences</li> <li>• Assignments</li> <li>• Exams/quizzes</li> <li>• Online oral presentations</li> <li>• Chats</li> </ul>

### Minimal Resources Required:

Learning Resources (I = provided by the Institution, S = acquired by the Student):

Resource	Face to face	Hybrid	Online
Institutional account for a learning management system (ex. Moodle)	I	I	I
Access to a computer or mobile device with Internet connection	S	S	S
Activated institutional e-mail (upr.edu) account	I	I	I
Microsoft Office or compatible equivalent software (Word, Excel, PowerPoint in particular)	S	S	S
Access to broad-band (high velocity) Internet	S	S	S
Speakers and microphone for computer or mobile device (integrated or external)	S	S	S
Computer with internet access	S	S	S
Web camera or mobile device with camera and microphone	N/A	S	S

Skype or equivalent audio-video communication software	N/A	I	I
--	-----	---	---

#### **Evaluation Techniques:**

<b>Evaluation Techniques</b>		
<b>Face to face</b>	<b>Hybrid</b>	<b>Online</b>
Oral presentation (10%)	Oral presentations (10%)	Discussion boards (10%)
Assignments: literature searches, annotated bibliographies, calculations (5%)	Assignments: literature searches, annotated bibliographies, calculations (5%)	Assignments: literature searches, annotated bibliographies, calculations (5%)
In class work (5%)	In class work (5%)	Case studies (5%)
Debates (5%)	Discussion boards (5%)	Webinars (5%)
Written project (10%)	Written project (10%)	Critique paper or project (10%)
Quizzes and exams (60%)	Quizzes and exams (60%)	Quizzes and exams (60%)
Attendance and class participation (5%)	Attendance to class, webinar or online meetings (5%)	Participation in asynchronous or synchronic meetings (5%)
Total: 100%	Total: 100%	Total: 100%

#### **REASONABLE ACCOMMODATION:**

The University of Puerto Rico complies with all state and federal laws and regulations related to discrimination, including “The American Disabilities Act” (ADA law) and Law #51 from the Puerto Rico Commonwealth (Estado Libre Asociado de Puerto Rico). Every student has the right to request and receive reasonable accommodation and Vocational Rehabilitation Services (VRS). Those students with special needs that require some type of particular assistance or accommodation shall explicitly communicate it directly to the professor. Students who are receiving VRS services shall communicate it to the professor at the beginning of the semester so that appropriate planning and the necessary equipment may be requested according to the Disabilities Persons Affairs Office (Oficina de Servicios a Estudiantes con Impedimentos –OSEI) from the Students’ Deanship office. Any other student requiring assistance or special accommodation shall also communicate directly with the professor. Reasonable accommodations requests or services DO NOT exempt the student from complying and fulfilling academic and course related requirements and responsibilities.

#### **ACADEMIC INTEGRITY:**

The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Students General Bylaws (Board of Trustees Certification 13, 2009-2010) states that academic dishonesty includes, but is not limited to: fraudulent actions; obtaining grades or academic degrees by false or fraudulent simulations; copying the whole or part of the academic work of another person; plagiarizing totally or partially the work of another person; copying all or part of another person answers to the questions of an oral or written exam by taking or getting someone else to take the exam on his/her behalf; as well as



enabling and facilitating another person to perform the aforementioned behavior. Any of these behaviors will be subject to disciplinary action in accordance with the disciplinary procedure laid down in the UPR Students General Bylaws.

To ensure user data integrity and security, hybrid and distance education courses are offered through the institutional learning management system, which employs secure connection and authentication protocols. The system authenticates the users' identity with the username and password of their institutional accounts. Users are responsible for keeping their password secure and not sharing with others.

**REGULATION ON DISCRIMINATION BY SEX AND GENDER IN THE FORM OF SEXUAL VIOLENCE:**

"The University of Puerto Rico prohibits discrimination based on sex, sexual orientation, and gender identity in any of its forms, including that of sexual harassment. According to the Institutional Policy Against Sexual Harassment at the University of Puerto Rico, Certification Num. 130, 2014-2015 from the Board of Governors, any student subjected to acts constituting sexual harassment, must turn to the Office of the Student Ombudsperson, the Office of the Dean of Students, and/or the Coordinator of the Office of Compliance with Title IX for an orientation and/or a formal complaint. "

**Grading System:** A, B, C, D, F

**Contingency plans in case of emergency:**

In special situations meetings, modules, exams, projects or assignments can be offered to be completed or submitted online, through Moodle or email; Otherwise, all exams will be given on campus.

**Bibliography:**

- Academy of Nutrition and Dietetics. (2018). Benchmarks for Nutrition in Child Care. Volume 118, Issue 7, July, Pages 1291-1300.
- Academy of Nutrition and Dietetics. (2018). Child and Adolescent Federally Funded Nutrition Assistance Programs. Volume 118, August Issue 8, Pages 1490-1497.
- Brown JE. (2020). In Nutrition through the Life Cycle, 7th edition. Cengage Learning. Boston, MA. ISBN: 9781337919333.
- Berding K, Donovan SM. (2018). Diet Can Impact Microbiota Composition in Children with Autism Spectrum Disorder. Front Neurosci. Jul 31; 12:515. doi: 10.3389/fnins.2018.00515.
- Innis SM. (2014). Impact of maternal diet on human milk composition and neurological development of infants. Am J Clin Nutr. Mar;99(3):734S-41S. doi: 10.3945/ajcn.113.072595.
- Johnston R, Poti JM, Popkin BM, Kenan Jr. WR. (2014). Eating and aging: Trends in dietary intake among older Americans from 1977–2010. J Nutr Health Aging. March; 18(3): 234–242. Doi: 10.1007/s12603-013-0387-y.
- Bzikowska-Jura A, Czerwonogrodzka-Senczyna A, Olędzka G, Szostak-Węgierek D, Weker H &

- Wesołowska A. (2018). Maternal Nutrition and Body Composition During Breastfeeding: Association with Human Milk Composition. *Nutrients*. Sep 27;10(10).
- Korczak R, Kamil A, Fleige L, Donovan SM, Slavin JL. (2017). Dietary fiber and digestive health in children. *Nutr Rev*. Apr 1;75(4):241-259. doi: 10.1093/nutrit/nuw068.
- Leonberg B. (2020) Pocket Guide to Pediatric Nutrition Assessment, 3rd Ed. Academy of Nutrition and Dietetics Eds. ISBN: 978-0-88091-015-6.
- Mullen MC. (2020) Pocket Guide to Pediatric Weight Management, 2nd Ed. Academy of Nutrition and Dietetics Eds. ISBN-13: 978-0880919968.
- Malkan M. (2020) Simple & Safe Baby-Led Weaning: How to Integrate Foods, Master Portion Sizes, and Identify Allergies. Academy of Nutrition and Dietetics Eds. ISBN-13: 9781646111947.
- Mahan, L. K., Escott-Stump, S. & Raymond, J. (2021). Krause's food & the nutrition care process (15th ed.). Elsevier. St. Louis, MI. ISBN: 9780323636551.
- Piercy KL, Troiano RP, Ballard RM, Carlson SA, Fulton JE, Galuska DA, George SM, Olson D. (2018). The Physical Activity Guidelines for Americans. *JAMA*. Nov 20;320(19):2020-2028.
- Steele C. & Collins E. (2018) Infant and Pediatric Feedings: Guidelines for Preparation of Human Milk and Formula in Health Care Facilities, 3rd Ed. Academy of Nutrition and Dietetics Eds. ISBN-13: 978-0880919401.
- Van de Rest O, Berendsen AA, Haveman-Nies A, de Groot LC. (2015). Dietary patterns, cognitive decline, and dementia: a systematic review. *Adv Nutr*. Mar 13; 6(2):154-68.

#### **Online references:**

- Academy of Nutrition and Dietetics (2018). Position of the Academy of Nutrition and Dietetics: Benchmarks for Nutrition in Child Care. *J Acad Nutr Diet*. 2018;118(7):1291-1300. Retrieved at: <https://www.eatrightpro.org/-/media/eatrightpro-files/practice/position-and-practice-papers/position-papers/benchmarksfornutritionprogramsinchildcaresettings.pdf>.
- Academy of Nutrition and Dietetics (2019). Position of the Academy of Nutrition and Dietetics and the Society for Nutrition Education and Behavior: Food and Nutrition Programs for Community-Residing Older Adults. *J Acad Nutr Diet*. 2019;119(7):1188-1204. Retrieved at: [https://www.eatrightpro.org/-/media/eatrightpro-files/practice/position-and-practice-papers/position-papers/pp\\_foodnutritionprogramsolderadults.pdf](https://www.eatrightpro.org/-/media/eatrightpro-files/practice/position-and-practice-papers/position-papers/pp_foodnutritionprogramsolderadults.pdf).
- Academy of Nutrition and Dietetics (2018). Position of the Academy of Nutrition and Dietetics: Child and Adolescent Federally Funded Nutrition Assistance Programs. *J Acad Nutr Diet*. 2018;118(8):1490-1497. Retrieved at: <https://www.eatrightpro.org/-/media/eatrightpro-files/practice/position-and-practice-papers/position-papers/childandadolescentfederallyfundednutritionassistanceprograms.pdf>.
- Academy of Nutrition and Dietetics (2018). Position of the Academy of Nutrition and Dietetics: Individualized Nutrition Approaches for Older Adults: Long-Term Care, Post-Acute Care, and Other Settings. *J Acad Nutr Diet*. 2018;118:724-735. <https://www.eatrightpro.org/-/media/eatrightpro-files/practice/position-and-practice-papers/position-and-practice-papers/individualizednutritionapproachesforolderadults.pdf>.

[papers/individualizednutritionapproachesforolderadults.pdf](#).

U.S. Department of Agriculture and U.S. (2021). Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Retrieved at: [https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary\\_Guidelines\\_for\\_Americans\\_2020-2025.pdf](https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf)

**Websites:**

Commission of Food and Nutrition of Puerto Rico: Guía Alimentaria y de Actividad Física para Puerto Rico: <http://www.salud.gov.pr/Dept-de-Salud/Documents/Comision%20de%20Alimentacion%20y%20Nutricion%20de%20Puerto%20Rico/GuiaAlimentaria.pdf>.

USDA National Nutrient Database for Standard Reference: <http://ndb.nal.usda.gov/>.  
My Plate for elderly: <http://hnrca.tufts.edu/myplate/>

MyPlate: <http://www.choosemyplate.gov/>.

**Other electronic links:**

Assistance feeding equipment for elderly:  
[http://nutritionandaging.fiu.edu/DRI\\_and\\_DGs/DRI\\_and\\_RDAs.asp](http://nutritionandaging.fiu.edu/DRI_and_DGs/DRI_and_RDAs.asp)  
<http://nihseniorhealth.gov/>  
<http://www.who.int/nutrition/topics/ageing/en/index1.html>

Obesity in vulnerable groups:  
<http://www.cdc.gov/genomics/spanish/file/print/obeseknowsp.pdf>

---

**Brenda Toro Enríquez, Ph.D., LND**

University of Puerto Rico  
Río Piedras Campus  
College of Natural Sciences  
brenda.toro1@upr.edu

---

**Education**

---

Kansas State University, Manhattan, KS (2005)  
Ph.D. in Foodservice Management and Dietetics  
College of Human Ecology  
Department of Hotel, Restaurant, Institution Management and Dietetics

University of Puerto Rico, PR (2000)  
MS in Nutrition  
Medical Sciences Campus, Public Health School

University of Puerto Rico, PR (1994)  
BS in Dietetics and Nutrition  
School of Family Ecology and Nutrition, Río Piedras Campus

**Additional Training**

---

Training on Personnel Committees Issues by the Center for Academic Excellence (CEA) November 2014.  
Nutritional Epidemiology, University of Puerto Rico, Nutrition and Dietetics Program (March 2014)  
Certified ServSafe Instructor & Registered ServSafe Examination Proctor

**Work Experience**

---

Full Professor  
Nutrition and Dietetics Program, College of Natural Science, University of Puerto Rico Río Piedras Campus  
2015 to Present

Acting Director  
Nutrition and Dietetics Program, College of Natural Science, University of Puerto Rico Río Piedras Campus  
2010 - 2014

Associate Professor  
Nutrition and Dietetics Program, College of Natural Science, University of Puerto Rico Río Piedras Campus  
2010 – 2014

Assistant Professor  
College of Education, School of Family Ecology & Nutrition, University of Puerto Rico  
Río Piedras Campus  
2003 - 2010

Accreditation Committee of the Department of Hotel, Restaurant and Institution Management,  
Undergraduate Program, Kansas State University, Manhattan, Kansas  
2001 - 2002

Graduate Teaching Assistant

Department of Hotel, Restaurant, Institution Management and Dietetics, Kansas State University,  
Manhattan, Kansas Teaching Environmental Issues in Hospitality I (Food Safety and Risk  
Management) using distance technology and assisting with on-campus course  
2000 - 2003

Administrative and Consultant Dietitian

San Juan Mental Health Center, San Juan, Puerto Rico  
1997 - 2000

Clinical Dietitian

Caguas Regional Hospital, Caguas, Puerto Rico  
1995 - 1996

Dietetic Intern

V.A. Caribbean Health Care System, San Juan, Puerto Rico  
1997 - 1995

### **Computer Skills**

---

Microsoft applications: Word, Publisher, Excel, Power Point, Outlook

Specialized software applications: Nutritionist Pro, Nutrient Data System for Research

### **Award**

---

Excellency in Nutrition and Dietetics, Awarded by Goya, Academy of Nutrition and Dietetics (2018)

Distinguished Educator of the Year, Academy of Nutrition and Dietetics (2018)

Distinguished Educator of the Year, Academy of Nutrition and Dietetics (2011)

### **Grant Writing Experience and Research Support**

---

Title: *Nutrition Live at UPR-RP; Distance Education within the Nutrition Curriculum*

Agency: US Department of Agriculture, NIFA

Role: Co-PD

Project goals: *The target objectives include to provide a broader educational experience to enrolled students, improve teaching, support the evidence on the use of alternate teaching methods taking into account the different lifestyles, learning styles, increase need of availability for enrollment in courses (i.e., course offerings), potentially reduce the time to complete program and decrease economic burden (i.e., room and board) for students who live in remote areas of the island.*

Funding approved: \$62,000

Date: 2011 - 2015

Title: *Improved facilities for food and science laboratories at University of Puerto Rico*

Agency: US Department of Agriculture, HSI

Role: PD

Project goals: *This project will provide state-of-the-art laboratory equipment and updated laboratory curriculum for the Program. Over the expected 10-year life span of the equipment, the project will*

*impact at least 550 students enrolled in Food Science, Institutional Menu, Applied Human Nutrition, Food Planning, Food Preparation and Service for Diverse Cultures, Quantity Food Production, Layout, Design and Equipment Purchasing for Foodservice Systems and Food Purchasing for Institutions courses. Through these courses and extracurricular experiences with state-of-the-art equipment, students will be better trained for professional careers in nutrition and dietetics and in areas of interest to the USDA.*

Funding: \$289,000

Date: 2011 - 2015

Title: Colores y Movimiento para un Puerto Rico Sano: Adolescent Behavior Change through Social Media and Face to Face School-Based Nutrition Interventions

Agency: USDA/NIFA, Childhood Obesity Prevention: Integrated Research, Education, and Extension to Prevent Childhood Obesity

Project goals: to determine the prevalence of overweight/obesity among Puerto Rican public school adolescents; and the development, implementation, and evaluation of a variety of interventions aimed to reduce overweight/obesity through increased fruit/vegetable intake and increased physical activity.

Role: Co-investigator

Funding: Not approved (\$ 3,000,000)

Date: August 2011 - May 2012

Title: Pilot Project within COBRE proposal entitled Center for the Study of Genome-Environment Interactions (CSGEI), collaboration with Dr. José García Arrarás, Department of Biology.

Agency: National Institute of Health

Project goals: To describe and contrast the ability to regulate food intake by measuring self-reported appetite and satiety responsiveness and dietary intake of obese children 5-8 years old to non-obese children matched by age and demographic characteristics.

Funding: Not approved

Date: 2011 - 2012

## **Research Experience**

---

Title: Trajectory of Health Behaviors among first year university students at the University of Puerto Rico, Rio Piedras Campus (*Perfil de Salud*)

Role: Co-investigator

Date: 2014-2017

Agency: Institutional funds

Funding: \$34,840.00

Study objective: This longitudinal observational study aims to describe the changes that occur among first year university students during their first two years of study.

Title: Pilot project on nutrition and physical activity education at a public junior high school.

Role: Co-investigator

Date: 2011-2013

Study objective: Describe changes in dietary intake among adolescents participating in a nutrition and physical activity education program after one year.

Title: Systematic review of the literature on student learning assessment in nutrition and dietetics.

Role: Co-investigator

Date: 2012 - 2013

Objective: Identify the teaching and assessment strategies in Social Work and Nursing field that can be used in Nutrition and Dietetics and describe the best practices in assessment of learning of learning across the three identified disciplines.

Title: Comparison of Menus for Adolescents 19 to 50 years old at Fast food and Casual Dining Restaurants with the Dietary Reference Intakes for that age group.

Role: Co-investigator

Date: 2010

Title: Comparison of Menus for Adolescents 14 to 18 years old at Fast food and Casual Dining Restaurants with the Dietary Reference Intakes for that age group.

Role: Co-investigator

Date: 2009

Title: Comparison of Menus for Children 4 to 8 years old at Fast food and Casual Dining Restaurants with the Dietary Reference Intakes for that age group.

Role: Co-investigator

Date: 2008

Title: Doctoral Research; Relationship of foodservice employees' knowledge, attitude and behavior related to food safety in restaurants in San Juan, Puerto Rico. Kansas State University, Manhattan, Kansas

Date: 2003 - 2005

Title: Master Research; Students' satisfaction regarding the food and the service offered by the School Lunch Program in Public School in San Juan, Puerto Rico. Medical Science Campus, Rio Piedras, Puerto Rico

Date: 1998 - 2000

### **Master and doctoral thesis committees**

Committee member, Master thesis in Nutrition; Frances Norat, *Determinar la posible asociación entre la deficiencia de hierro y las caries a temprana edad en niños de 3 y 4 años.* (2007).

Consultant, Doctoral thesis in *Currículo y Enseñanza*; Iris Z. Hernández, 2007 *Percepción que tienen los Nutricionistas/Dietistas sobre las competencias de liderazgo que debe poseer el director de servicios y nutrición en una institución hospitalaria.* (2007).

Committee member, Master thesis in Public Health; Angel Landrón, (2009)

### **Publications and Presentations**

---

#### **Articles**

Pinto, E., Rahill, G., Toro, B. (Under review). Assessment of learning outcomes and competencies in nutrition and dietetics education: A review. *Journal of the Academy of Nutrition and Dietetics.*

Pinto, E. & Toro, B. (In development). Cooking with fruits to encourage fruit consumption among girls 6-7 years old. *Journal of Nutrition Education and Behavior.*

Pinto, E., Toro, B. & Meléndez, J. (2016). La Metaevaluación en la implantación de un Programa de Educación a Distancia: Un estudio de caso. Artículo solicitado por el *Hispanic Educational Technology Services Journal*, VI.

Pinto, E., Toro, B. & Cruz, J. (En desarrollo). Factores de éxito en la toma de examen de certificación nacional en nutrición y dietética. *Journal of Nutrition Education and Behavior*.

Pinto, E., Toro, B. & Crespo, M. (En desarrollo). Satisfacción, relevancia personal y aprendizaje activo en cursos de nutrición a distancia.

Pinto, E., Toro, B., Vicéns, L. (2014). Nutrition and physical activity Interventions for childhood obesity; Lessons Learned. *Ecology of Food and Nutrition* 53(5), 503-513.

Toro, B; Cruz, A. & Vicéns, L. (2011). Comparación del valor Nutricional de menús para Adultos 19-50 Años en establecimientos de Comida Rápida y casual/familiar con la Ingestas Dietarias de Referencia, *Avances de Nutrición – ADA-PR*, 11, 5-11.

Toro, B; Cruz, A. & Vicéns, L. (2010). Comparación del Valor Nutricional de menús para Adolescentes 14-18 Años en establecimientos de Comida Rápida y casual/familiar con la Ingestas Dietarias de Referencia, *Avances de Nutrición – ADA-PR*, 10, 13-20.

Toro, B. (2009). Combos para niños: ¿Cómo comparan con las recomendaciones para su edad? *Revista Oficial Ciencias de la Familia y el Consumidor*, 3, 11-13.

Toro, B; Cruz, A. & Vicéns, L. (2009). Comparación del Valor Nutricional de Menús para Niños de 4-8 años en establecimientos de comida rápida y casual/familiar con la Ingestas Dietarias de Referencia, *Avances de Nutrición – ADA-PR*, 9, 11-17.

Toro, B. (2001). Students' satisfaction regarding the food offered by the School Lunch Program. *Equilibrium*, 1, 20-23.

### **Peer-reviewed presentations**

Pinto, E., Toro, B., Cruz, J. (2016). *Impacto de un programa piloto de educación en actividad física y nutrición. VI Congreso Internacional de Universidades Promotoras de la Salud en San Juan PR October 2016 FNCE*

Pinto, E., & Toro, B. (2016). *Impacto de un programa piloto de educación en actividad física y nutrición. VI Congreso Internacional de Universidades Promotoras de la Salud en San Juan PR el 21 de mayo de 2016 en el Centro de Convenciones de San Juan de Puerto Rico.*

Pinto, E., & Toro, B. (2013). *Impacto de un programa piloto de educación en actividad física y nutrición. VI Congreso Internacional de Universidades Promotoras de la Salud en San Juan PR el 21 de marzo de 2013 en el Centro de Convenciones de San Juan de Puerto Rico.*



## **Oral presentations**

Pinto, E. & Toro, B. (2015). Impacto de un programa piloto de educación en actividad física y nutrición. Nutrition Journal Club, Universidad de Puerto Rico el 13 de mayo de 2015.

Toro, B. & Vicéns, L. (2014). Nutrición y Dietética: *Otro horizonte ante nuevos caminos*. Convención Anual del Colegio de Nutricionistas y Dietistas de PR el 2 de agosto de 2014 en el Condado Plaza de San Juan de Puerto Rico.

Toro, B. & Vicéns, L. (2012). Progress report: Improved facilities for food science, Nutrition and Foodservice Laboratories for Hispanic Students at UPRRP. Project Directors' Meeting. Poster Presentation, Edinburg, Texas. May 30 - June 2.

Toro, B. (2012). *Guía Alimentaria para Puerto Rico*. Comisión de Alimentación y Nutrición. Departamento de Salud de Puerto Rico el 16 de febrero de 2012.

Toro, B. & Vicéns, L. (2011). Improved facilities for food science, Nutrition and Foodservice Laboratories for Hispanic Students at UPRRP. Project Directors' Meeting. Poster Presentation, Washington DC. November 17 - 19, 2011.

B. Toro (2008). *Food Safety Practices*. Invited speaker, Annual Convention of the Puerto Rico American Dietetic Association, Embassy Suite Hotel, San Juan, PR, March 14, 2008.

B. Toro (2007). *Relationship of foodservice employees' knowledge, attitude and behavior related to food safety in restaurants in San Juan, P.R.* Invited speaker, Scientific Symposium, Mayaguez, PR, March 16, 2007.

B. Toro (2007). *Últimos conceptos de los servicios de alimentos*. Colegio de Profesionales con la Salud, Recinto de Ciencias Médicas.

B. Toro (2007). Conferencia La Pirámide Alimentaria, Semana de las Secretarías Tribunal Apelativo, Hato Rey, PR.

B. Toro (2005-2009). Repaso comprensivo sobre administración en servicios de Alimentos. San Juan, PR.

## **Professional Activities**

---

Treasurer, Academy of Nutrition and Dietetics (2017 to Present)

Coordinator, Feria de Nutrición del Programa de Nutrición y Dietética, UPR-RP (2010-2018)

Member, Annual Meeting Coordinating Committee, Academy of Nutrition and Dietetics, Puerto Rico Affiliate (2013- at present)

Continuing Education Coordinator, Academy of Nutrition and Dietetics (2014-2015)

Nominating Committee Coordinator, Academy of Nutrition and Dietetics (2010-2014)

Advisor, Submission of a Proposal from the School of Hotel and Restaurant at the UPR Carolina to the USDA (2013-2015)

Foodservice supervisor for the Athletes Village for the Central American Games, Salinas, PR (2010)

Member, Comité Pirámide Alimentaria para Puerto Rico, Comisión de Alimentación y Nutrición (2007-2013)

Collaborator, Walk-a-Thon 2008 *Dando la Milla Extra*, Provided services to obtain anthropometric measurements among participants (2008)

Lecturer, *Panel de Investigación y Educación en Nutrición* para el curso Aspectos Profesionales en Nutrición y Dietética, UPR-RP (2008)

Advisor, Consulting Project for Center for Applied Tropical Ecology (CREST-CATEC) at Mona and Monito Islands, on the improvement of the foodservice system for personnel (2008-2009)

Collaborator, Feria de Nutrición, UPR-Carolina Campus (2007)

Advisor, *Recomendaciones Contrato de Arrendamiento de espacio para máquinas expendidas de comidas ligeras*. Oficina de Compras y Suministros del Recinto de Río Piedras (2007)

Member, Joint Committee for the revision of the Dietary Guidelines for PR (Food and Nutrition Commission of PR, Department of Health (2006-2007)

Lecturer, *Taller de culinario de alimentos típicos de PR para estudiantes internacionales*, College of General Studies (Summer 2006)

Judge in Culinary Festival UPR, UPR-Carolina Campus (2006)

Member, *Junta de Gobierno Colegio de Nutricionistas y Dietistas de Puerto Rico, Vocal Sector Universitario* (2004-2005)

Liaison, *Centro Pediátrico de Diabetes del Campamento de Verano del Hospital Pavía y el Programa de Nutrición y Dietética de la Escuela Ecología Familiar y Nutrición*, served as liaison to recruit interested students in collaborating in the summer camp. Pavía Health Diabetes Foundation (Summer 2005 & 2006).

Member, *Comité del Fideicomiso de las Hermanas Calzadas*, College of Education, UPR-RP (2005-2006)

### **Professional Affiliations**

---

Licensed in Nutrition and Dietetics (LND), Lic. # 1146

Registry of Health Professionals

Member of *Colegio de Nutricionistas y Dietistas de Puerto Rico*

**Dr. Celia Mir**

RDN, LND, CFCS, DEPR, REPR, CWCM, CCVM, CGIM, CPhA

[drmirupr2@gmail.com](mailto:drmirupr2@gmail.com)

## **EDUCATION**

University of Central Florida; Orlando, Florida — Doctor of Education in Health Sciences: Nutrition and Biochemistry, 1990.

Post-doctoral credits – same concentration as above, 1991.

University of Puerto Rico; School of Medicine, Puerto Rico — Master of Public Health and Nutrition, 1975

Internship: Veterans Administration; San Juan, Puerto Rico, 1973.

University of Puerto Rico; Rio Piedras Campus, Puerto Rico — Bachelor of Science, Nutrition and Dietetics, 1972.

## **Active Memberships**

Puerto Rico Association of Nutritionists and Dietitians (Colegio de Nutricionistas y Dietistas de PR - CNDPR) – mandatory by law

Academy of Nutrition and Dietetics – USA

Academy of Nutrition and Dietetics – Puerto Rico Chapter

American Academy of Family and Consumer Sciences

Honor Societies: Phi Delta Kappa and Kappa Delta Pi, 1990's

## **Licenses and Certifications**

United States of America:

RDN— Registered Dietitian and Nutritionist

LND— Licensed in Nutrition and Dietetics (Florida, mandatory by law)

## **cont... Licenses and Certifications**

Puerto Rico:

LND— Licensed in Nutrition and Dietetics - (PR, mandatory by law)

CFCS— Family and Consumer Sciences  
DEPR— Diabetic Educator in Puerto Rico  
REPR— Renal Educator in Puerto Rico  
CWCM— Weight Control Management in Puerto Rico  
CCVM— Cardiovascular Management in Puerto Rico  
CGIM— Gastrointestinal Management in Puerto Rico  
CPhA— Physical Aptitude in Puerto Rico

## **EXPERIENCE**

### **Professor and Researcher, University of Puerto Rico (Nutrition and Dietetics Program); Río Piedras, Puerto Rico – Active since 1977 to Present**

- Developed and instructed courses in: Human Nutrition, Applied Human Nutrition, Advanced Nutrition, Community Nutrition, Nutrition in Public Health, Child Nutrition, Herbology and Nutrition, Vegetarianism, Nutritional Supplements, Nutrition in Sports, Statistics and Research Methodology, Nutrition Education, others.
- Professor for the Family Ecology Graduate Program, Education Faculty.
- Served as Thesis Review Graduate Faculty. Director of more than forty thesis in nutrition and dietetics - since 1992.
- Independent research project: *Nutritional Assessment of the Vieques Community* (a compilation of data that define the nutritional status of this population – a decade of variables to study). x 1993.
- Independent research project with the Department of Justice of Puerto Rico: *Determination of the Consumption of Vitamins in Puerto Rico*. x 1997.
- Advisor (over 30 years) to student organization, *Círculo de Nutrición y Dietética*.
- Motivated and facilitated membership into the Academy of Nutrition and Dietetics with an average of 40 students per year
- Led annual experiential learning trip, taking students to FNCE for almost 30 years
- Developed and executed multiple community expositions, science fairs, clinical fairs, health and nutrition community assessments, cultural and civic educational experiences to all age groups within the greater Puerto Rican community.
- Developed and implemented a coaching program to prepare students to take the RD registered test and the PR mandatory by law test.
- Contributing writer for CDR and RD test.

## **cont... EXPERIENCE**

### **Televised Health Segment Host, Univisión (Channel 11); San Juan, Puerto Rico**

- Prepared and hosted a weekly 15-minute nutritional health segment, titled *Nutrición con Sabor a Salud*, for prominent Puerto Rican news station. For 10 years until 2014.

### **Televised Health Segment Host, WAPA (Channel 4); San Juan, Puerto Rico**

- Prepared and hosted a weekly 10-minute nutritional health segment, titled *Despierta Puerto Rico*, for prominent Puerto Rican news station. For 7 years until 1985.

### **Radio Show Host, WKAQ (580AM); San Juan, Puerto Rico**

- Prepared and hosted a monthly series of four, two-hour nutritional health talk radio shows in celebration of Nutrition Month (March), titled *120 Minutos de Salud*. For 14 years until 2015.

*Radio Show Host, Radio Isla 1320 am; San Juan, Puerto Rico. Prepared and co-hosted a weekly 30 minute nutritional health and culinary sessions. A Chef and a Dietitian, 2010.*

### **President, Association of Nutritionists and Dietitians of Puerto Rico (Colegio de Nutricionistas y Dietitistas de PR = CNDPR); San Juan, Puerto Rico – professional organization, mandatory by law to all the nutritionists and dietitians of PR.**

- Served as President of this mandatory professional organization for five, three-year terms (for a total of 15 years of leadership) 2013, 2008, 2004, 1996, 1985 – President Elect, President and President Advisor.

### **President, Nutrition Committee of PR; San Juan, Puerto Rico, 1989.**

### **President and Delegate, Academy of Nutrition and Dietetics— Puerto Rico Chapter; San Juan, Puerto Rico**

- Served as member, President in 1988, and Delegate for Puerto Rico for three years – 2001 to 2004.

### **Honorary Member in the Commission of Food and Nutrition – Appointed by the President of the University of Puerto Rico to be an Advisor for the PR nutritional screening and assessment of the nutritional status of our population project, 1999.**

### **Honorary Member of the Recreation and Sports Agency of the Government of Puerto Rico. Appointed by the Governor of PR for the Advisory Board, 1992.**

### **Nutritionist and Dietitian, Medicina Deportiva (Sports Medicine Clinic, my private office); San Juan, Puerto Rico, 1979 – 1986.**

## SERVICE

- Speaker for many professional organizations – medical, paramedical, quasi medical, civic, cultural and political – since 1977 to Present.
- Offered clinical and behavioral education to cancer patients and their families— American Cancer Association through the Teachers Association of Puerto Rico
- Created and introduced legally, for the first time in Puerto Rico, the LND acronym, 1984. After it was established in PR it was used as an example to be implemented in the USA.
- Directed legislation projects and participated in hearings related to nutrition issues in Puerto Rico.
- Development of formal continuing education program for nutritionists and dietitians in Puerto Rico
- Development of professional Certifications - a variety of themes.
- Created proposals for the health insurance and developed plans for reimbursement.
- Reviewed and developed for the first time salary scales for Nutritionists and Dietitians of Puerto Rico.
- Promoted the increase of salary scales at the government level (OGP). Prepared proposal for level of progress - accepted.
- Developed suggested costs for services proposal – twice: in 1995 and 2007.
- Developed and granted awards for diverse specializations in nutrition and dietetics. Several times.
- Created a relationship with pharmaceutical and food industries to developed endorsements to support economic help for the Puerto Rico professional association (CNDPR)
- Developed promotional and educational messages to be displayed in the media for pharmaceutical industries in PR.
- Produced, developed and coordinated Annual Conventions for our Professional Association (CNDPR) – in more than 10 occasions.

## Publishing highlights

- Numerous articles for Puerto Rican magazines, including *Imagen*, *Caras*, *Buena Vida*, *Vive*, etc. and for our local newspaper – El Nuevo Día.
- Developed and produced newspaper Supplements in March: Nutrition Month.
- Numerous articles for *Bulletins and Journals of the Association of Nutritionists and Dietitians of Puerto Rico*.
- Editor, translator and writer of a series of books called *You and Your Health*, used by the Department of Education (Grades 1 through 4) – more than 50,000 were printed out. 1986.
- Editor, producer, and developer: *PR Recipes For More Than 50 Portions*
- Editor, producer, and developer: *Diet Manual for Puerto Rican Nutritionists and Dietitians*

## **SKILLS**

- Bilingual fluency in English and Spanish (written and verbal)
- Exceptional writing and editing skills
- Excellent verbal communicator
- Adept in simultaneously managing multiple projects
- Cultural sensitivity
- Proficiency in Microsoft Office Suite

*References available upon request.*

**Carmen M. Pérez-Velázquez, DrPH, MHSN, RDN, LND**

Condominio Vista Verde, San Juan - Puerto Rico, 00924  
carmenm.perez46@gmail.com carmen.perez25@upr.edu  
787-216-7939 Skype account carmenmperezv

**Education**

2017 DrPH Public Health: Social Determinants of Health (SDOH), University of Puerto Rico Medical Sciences Campus (UPR-MS), San Juan - PR  
1988 MHSN Health Sciences: Nutrition, UPR-MS, San Juan – PR  
1986 BS Nutrition and Dietetics, UPR- Rio Piedras Campus, San Juan – PR

**Additional Training**

Feb – May 2017 Legislative Internship Program Jorge A. Ramos Comas.  
Educational experience that combines the theoretical and practical elements of the legislative processes and their integration with the Executive and Judicial Branches of the Commonwealth of Puerto Rico. Assigned to the Office of Senator Dr. José Vargas Vidot.  
a) Draft the bill to create the Integrated System of Uniform Trauma Management and Traumatic Medical Emergencies in Puerto Rico.  
b) Draft the bill to amend the Law 28-2017 “Law on Compliance with the Fiscal Plan”.  
c) Analysis of legislative measures of five Senate Committees.  
d) Attendance to public hearings and legislative sessions.

Feb – July 2015 Practicum in Social Determinants of Health, Office of the Ombudsman of Elderly Persons, Puerto Rico Commonwealth.  
a) Conducted a case study research about elder abuse through the critical examination of public health discourse and historical practices.  
b) Proposed new policy actions to deal with elder abuse in Puerto Rico.

2009 - 2017 SAAM 6528 – Principles of Environmental Health\*  
CISO 6538 – Culture, Society and Complex Organizations\*  
EPID 6523 – Epidemiological Methodology\*  
MECU 6551 – Fundamentals of Statistics\*  
PSIC 6325 – Advanced Statistical Design (doctoral pre-requisite)  
HIST 6040 – PR Economy, Society 20 Century (doctoral elective)  
CISO 6099 – Medical Anthropology and SDOH (doctoral elective)  
GERO 6501 – Biological Aspects of Aging\*  
GERO 6505 – Clinical Aspects of Aging\*  
GERO 6990 – Neuropsychology of Old Age\*  
*\* Courses taken by personal interest*

Aug 91 – June 92 Dietetic Internship Program, UPR-MS, San Juan – PR  
Nov 92 – present 8+ annual hours of continuing education



## **Certifications**

Certificate in Construction of Virtual Learning Environments, UPR-Rio Piedras Campus  
Transdisciplinary Research Certificate, UPR- Rio Piedras Campus  
CITI Health Information Privacy and Security for Clinical Investigators Certificate  
CITI Health Information Privacy and Security for Students and Instructors Certificate  
CITI Social/Behavioral Research Course Certificate  
Food Allergy & Intolerance Management Certificate  
Certified Quality Improvement Associate from the American Society for Quality

## **Main Research Interests** (in no particular order)

Food Insecurity, Food Environments, Aging, Public Policy, Gender and Minorities Health Disparities, Sustainable Food Systems, Human Nutrition, Community Nutrition

## **Academic Experiences**

*University of Puerto Rico, Rio Piedras Campus, Nutrition-Dietetics Program, San Juan-PR*  
Aug 13 – May 17 Instructor    Sep 17 – May 19 Assistant Professor (non-tenured)

- Teach under-graduated courses in nutrition and dietetics (see below).
- Counsel students on career opportunities and choices.
- Participate in departmental faculty meetings.
- Conduct nutrition fairs.

*Universidad del Turabo (UT), School of Health Sciences, Gurabo-PR*

Aug 08 – Jul 12        *Associate Dean of Academic Affairs*

Aug 03 – Jul 12        *Director & Associate Professor, Nutrition-Dietetics Program*

Aug 07 – Jul 08        *Director of the Health Professions Department*

Aug 05 – Jul 07        *Director of the Community Health System Department*

- Managed and conducted all activities related to Nutrition and Dietetics Program accreditation (e.g., meetings, reports, policies, agreements, assessments, on-site evaluation visit, standards' accomplishment).
- Taught under-graduated courses in nutrition and dietetics (see below).
- Wrote grant proposals.
- Lead the assessment activities of the School (e.g. meetings, reports, surveys, classroom visits, trainings, interviews).
- Handled the academic affairs of the School of Health Sciences (e.g., curricula, course scheduling, student's admission, retention, and graduation, faculty's academic load).
- Collaborated with the Dean in the strategic planning of the academic, administrative, and fiscal components of the School.
- Evaluated the creation of new academic programs and re-evaluated the existing ones.
- Supervised and evaluated the professional performance of School faculty members.
- Developed and implement measures to assess programs' effectiveness and goals' achievement, as well as student's learning outcomes attainment.
- Appointed as an Interim Dean: June 2-4, 2010; October 18-21, 2008; May 21-25, 2007; April 4-6, 2006; March 1-13, 2006; February 1-5, 2006; December 5-10, 2006; December 7-13, 2005; October 7-13, 2005 & August 16-19, 2005.

*Universidad del Turabo, School of Health Sciences, Gurabo-PR*

Mar 03 – Jul 03      *Consultant*

- Produced and submitted the Eligibility Application document to the Commission on Accreditation for Dietetics Education as a first step to accredit the Nutrition-Dietetics Coordinated Program.
- Lead all the activities related to produce the Eligibility Application document (e.g., meetings, surveys, policies, agreements, interviews, curricula and syllabus assessment).

### **Research Experiences**

*University of Puerto Rico, Medical Sciences Campus, School of Public Health, San Juan-PR*

Aug 13 – May 17      *Research Assistant*

- Assisted the PI on a research project “Puerto Rico Test-Site for Exploring Contamination Threat” designed to investigate the relationship between phthalates and other contaminants and adverse pregnancy outcomes such as preterm birth.
- Assisted the PI on a research project “Physicians and Health Related Services for Male to Female Transgender Persons (MTF-TG)”. This study entails the first systematic documentation of knowledge of MTF-TG health, competency in treating MTF-TG, willingness to provide services to MTF-TG, and attitudes toward this population among physicians in Puerto Rico.
- Conducted literature review.
- Recruited the participants for interviews.
- Conducted participants interviews.
- Performed quality control procedures to the interview transcripts.
- Coded the information of transcripts.
- Translated the research questionnaires into Spanish.

### **Doctoral Dissertation & Master’s Thesis**

*2015-2017 Doctoral Dissertation* - “Conceptualization of Food Insecurity in Puerto Rican Elders: Importance of its Understanding.”

*Committee:* Dr. Sheilla L. Rodríguez, Chair; Dr. Carmen D. Sánchez, Member & Dr. Olga I. Bernardy, Member.

*1987-1988 Master’s Thesis* – “Comparison of Dietary Fiber Intake and Other Factors Associated with Colon Diverticulosis Between a Control Group and Hospitalized Patients During 1986 in Auxilio Mutuo Hospital, San Juan, Puerto Rico.”

*Committee:* Dr. Jaime E. Ariza, Chair; Dr. Hardeo Sahai, Member & Ms. María I. Matos, Member

### **Peer-reviewed Publications**

Calo, W.A., Ortiz, A.P., Suárez, E., Guzmán, M., **Pérez, C.M.** & Pérez, C.M. (2013). Association of cigarette smoking and metabolic syndrome in a Puerto Rican adult population. *Journal of Immigrant and Minority Health*, 15(4), 810-816.

Citations (google scholar): 21

**Pérez, C.M.** (2009). Can ginkgo biloba combat diseases? *Puerto Rico Health Sciences Journal*, 28(1), 66-74.

Citations (google scholar): 9

### **Under-review Publication**

Rodríguez-Madera, S.L., Varas-Díaz, N., Padilla, M., Ramos-Pibernus, A., Neilands, T.B., Rivera-Segarra, E., **Pérez, C.M.**, & Bockting, W. (2017) “Just like any other patient”: Transgender stigma among physicians in Puerto Rico.

### **Under-preparation Publications**

**Pérez-Velázquez, C.M.**, Rodríguez-Madera, S.L., Sánchez-Salgado, C.D., Bernardy-Aponte, O.I., Frongillo Jr., E.A. “Here the refrigerator is empty”: Food insecurity among Puerto Ricans elders.

**Pérez-Velázquez, C.M.**, Rodríguez-Madera, S.L., Sánchez-Salgado, C.D., Bernardy-Aponte, O.I. Puerto Ricans elders’ food insecurity: An ecosocial approach.

**Pérez-Velázquez, C.M.**, Rodríguez-Madera, S.L., Sánchez-Salgado, C.D., Bernardy-Aponte, O.I. Addressing the singular dimensions of food insecurity of older adults: Puerto Rican experience.

### **Research Article Reviewer**

2018 Current Developments in Nutrition, CDN-D-18-00010 - Validity of the Food Insecurity Experience Scale for use in Sub-Saharan Africa and characteristics of food insecure individuals.

2010 Journal of Family and Consumer Sciences, FCSRJ-10-065 - Nutrition education about trans fatty acids improved consumer understanding of food labels and food purchasing behaviors.

### **Grants**

Apr 2015 National Institute of Health, Ruth L. Kirschstein National Research Service Award Individual Pre-doctoral Fellowship, PA-14-147  
Title: “Conceptualization of Food Insecurity in Puerto Rican Elders: Importance of its Understanding”  
Main Aim: To explore the phenomenon of food insecurity in Puerto Rican elders.  
Role: Principal Investigator  
Funds requested: \$36,180.00 (not funded)  
Timeline: 8/04/2014 - 5/28/2015

Nov 2005 United States Department of Agriculture, 2005-04790  
Title: “Strengthening of a Nutrition and Dietetics Academic Program through Foodscience Laboratory Development and Enhancement”  
Main Aim: To provide, develop and use alternative methods of delivering instruction to enhance the quality, effectiveness, and cost efficiency of the UT School of Health Sciences Bachelor of Science Nutrition and Dietetics Program.  
Role: Principal Investigator

Funds requested: \$96,312.00 (not funded)  
Timeline: 10/01/2012 - 10/01/2014

### **Other Grants' Experiences**

- Oct 10- Jul 12 *Co-Investigator*. "Implementing a Culturally Competent and Linguistically Appropriate Approach to Help Puerto Rican Children Learn and Practice Healthy Eating Habits and Physical Activity". Sponsored by the National Council of La Raza.
- Sep 09– Mar 10 *Active participation* in the request for the Universidad del Turabo Permanent Funds Scholarship to Triple S-Salud Inc. Scholarship granted of \$100,000.00 for Nutrition Dietetic Interns.
- Jul 07– Jun 09 *Workshop Coordinator*. "Strengthening Retention and Graduation Rates of Disadvantaged Students in a Nutrition/Dietetic Program at Universidad del Turabo". Sponsored by the United States Department of Agriculture.
- Sep 04- Sep 07 *Co-Director*. "Recruitment and Retention of Disadvantaged Students in a Nutrition/Dietetic Program". Sponsored by the United States Department of Agriculture.

### **Student Research Mentoring (graduate)**

- 2011 Reader in doctoral dissertation "Childhood obesity and self-esteem" of Ms. Iris N. Ortíz-Escribano. Universidad del Turabo, Psychology Doctoral Program.
- 2008 Mentor in master research project "Speech-language pathology student's knowledge about laryngopharyngeal reflux and its long-term effects in the voice mechanism" of Ms. Gisel Carriles-Medina. Universidad del Turabo, Speech-Language Pathology Master Program.

### **Research Presentations (Abstract Submitted)**

**Pérez, C.M., & Rodríguez, S.L.** (2016). Conceptualization of Food Insecurity in Puerto Rican Elders: Implications for Public Health. Oral presentation (S0-47) at the University of Puerto Rico Medical Sciences Campus V Public Health Puerto Rican Conference. San Juan, Puerto Rico. May 2-4, 2016.

Plummer J., Alarcón, O., **Pérez, C.M.**, Rodríguez, J. P., Ronda, M., Tofani, J., Padilla, N. & Reyes, V. M. (2011). Quality of Air and its Effects in the Puerto Rico Pediatric Population: Strategies for a Holistic Action Plan. Poster presentation (C-092) at the University of Puerto Rico Medical Sciences Campus 31<sup>st</sup> Annual Research and Education Forum San Juan, Puerto Rico. May 3-6, 2011.

### **Additional Presentations (last 10 years)**

- Mar 2017 Roots of Food Insecurity as a Social Determinant of Health. University of Puerto Rico, Medical Sciences Campus, School of Public Health.
- Aug 2016 Food Insecurity as a Social Determinant of Health. University of Puerto Rico, Cayey Campus, Social Sciences Department.
- Apr 2016 Food Insecurity as a Social Determinant of Health. University of Puerto Rico, Medical Sciences Campus, School of Public Health.
- Apr 2015 Role of Public Health in Obesity Prevention and Treatment. Colegio de Nutricionistas y Dietistas de Puerto Rico. 2013

- Nov 2013      Photography exhibition entitled “Rio Piedras! A Look of the Community from the Lens of Seven Women” by Nazario, G., **Pérez, C.M.**, Ríos, E., Rodríguez, S.L., Soto, M., Torres, I., & Valle, Y. Casa de Cultura Ruth Hernández Torres. San Juan, Puerto Rico. November 22 – December 6, 2013.
- Aug 2013      Role of Nutrition in Human Genes. Colegio de Nutricionistas y Dietistas de Puerto Rico Annual Congress.
- Apr 2013      Role of Public Health in Obesity Prevention & Treatment. Colegio de Nutricionistas y Dietistas de Puerto Rico.
- Mar 2011      Can Gingko Biloba Combat Diseases? *Poster presentation in the American Dietetic Association Annual Convention, Puerto Rico.*
- Mar 2010      Medical Nutrition Therapy for Parkinson’s Patients. American Dietetic Association Annual Convention, Puerto Rico.
- Oct 2008      Healthy Eating Habits. Universidad del Turabo, Gurabo, Puerto Rico.
- Mar 2008      The Usual Suspects: Sodium, Sugar, Fat. Universidad del Turabo, PR.
- Mar 2007      Complementary and Alternative Medicine. A Research-Based Approach. Colegio de Nutricionistas y Dietistas de Puerto Rico Annual Congress.

### Media Coverage

- Pérez, C.M.** (2018). Conceptualización de la inseguridad alimentaria en personas de mayor edad en Puerto Rico: La importancia de su entendimiento. *University of Puerto Rico, Rio Piedras Campus - Center for Academic Excellence Bulletin*. Aug-Dec 2017 issue, page 14. Available at <http://cea.uprrp.edu>
- Pérez, C.M.** (2017). Construyendo conocimiento desde la transdisciplinariedad. *University of Puerto Rico, Rio Piedras Campus - Center for Academic Excellence Bulletin*. Aug-Dec 2016 issue, page 6. Available at <http://cea.uprrp.edu>
- Pérez, C.M.** (2014). Una agenda de política pública para asegurar seguridad alimentaria. *University of Puerto Rico, Cartero Ac.* October 19, 2014.
- Pérez, C.M.** (2011). Conejo... ¿Por qué sí? *El Nuevo Día* newspaper. Friday, December 16S, page 17.
- Pérez, C.M.** (2011). Ambiente obesogénico. *El Nuevo Día* newspaper. Friday, September 23, page 6S.
- Pérez, C.M.** (2008). Food irradiation: Really safe? *Universidad del Turabo Virtual Library*. Available at <http://bv.ut.suagm.edu/es/publications/food-irradiation-really-safe>
- Pérez, C.M.** (2004). El poder del Gingko Biloba. *El Turabón* newspaper. Jan-May 2004 issue.

### Media Outreach

- Cantres, A., & **Pérez, C.M.** (2006). ¿Hipoglucemia? ¡Frena antes de llegar a la Diabetes! An interview for *Caras Magazine*. March 2006 issue, page 10S.

### Teaching Experiences

- Aug 13– Feb 18      *University of Puerto Rico, Rio Piedras Campus* (undergraduate)
- NUTR 4042      Human Nutrition II
- NUTR 4055      Food Purchasing for Foodservice Systems
- NUTR 4068      Layout, Design and Equipment Purchasing for Foodservice Systems
- NUTR 4170      Methodology in Nutrition Education

NUTR 4175 Practicum in Nutrition Education  
 NUTR 4225 Professional Aspects in Nutrition and Dietetics  
 NUTR 5997 Seminar: Food Insecurity: A Social Approach\*  
 NUTR 5997 Seminar: Fundamentals of Human Nutrition and Wellness\*  
 HOEC 3075 Child Nutrition (non-major students)  
 HOEC 4042 Nutrition Basics (non-major students)

*\* Courses developed by me*

Jan 04 – Jul 11 *Universidad del Turabo, Gurabo (undergraduate)*

NUTR 203 Nutrigenomics Nutrigenetics\*  
 NUTR 204 Vegetarian Nutrition\*  
 NUTR 205 Nutrition in Sports and Exercise\*  
 NUTR 206 Nutrition in Complementary and Alternative Medicine\*  
 NUTR 405 Nutrition throughout the Life Cycle  
 NUTR 420 Nutritional Assessment  
 NUTR 440 Medical Nutrition Therapy I

*\* Courses developed by me*

Jan 15– May 15 *MonteClaro School of Hospitality and Culinary Arts, Rio Grande, PR*  
 ACL 120 Culinary Nutrition and Menu Planning Laboratory

### **Additional Professional Experiences**

*School Lunch Program Authority, San Juan-PR*

Apr 13 – Aug 13 *Nutritionist-Dietitian, San Juan Region*

- Conducted food recipes analyses.
- Prepared dietary plans to students with health conditions that required diet's modifications.
- Prepared food specifications.
- Assisted in the development of survey instruments.
- Conducted in-service trainings and on-the job trainings.
- Conducted inspections' visits to schools' canteens and food warehouses.
- Developed and evaluated nutrition education materials.

*University of Puerto Rico Hospital, Dr. Federico Trilla, Carolina-PR*

Jan 95 – Aug 03 *Clinical Dietitian & Administrative Assistant*

- Provided comprehensive nutritional assessments and care planning for patients (e.g., interviews, patient's record reviewing, diet calculations, educational materials' developing, counseling, active participation in medical rounds, committee member).
- Supervised and evaluated food and enteral diets' preparation, serving and deliver.
- Supervised and evaluated the employee's performance.
- Conducted in-service trainings, on-the job trainings, employee's interviews and evaluations.
- Developed and evaluated job descriptions, cycle menus, food safety manuals, standards of care policies and procedures.
- Prepared purchase orders for food, kitchen's tools, equipment and supplies following quality and safety specifications.

- Supervised and evaluated the dietetic interns at gerontology ward (Ad-Honorem Faculty of the UPR-MSU).

*Private Practice, Carolina Shopping Court, Carolina-PR*

Jan 95 – Jun 03      *Dietitian*

- Provided comprehensive nutritional assessments and care planning for patients (e.g., interviews, diet calculations, educational materials' developing, counseling, anthropometric measurements, menu planning).

*"El Nuevo Amanecer", Rio Grande-PR and Nutrivance-Echmart, Carolina-PR*

Oct 95 – Jul 00      *Nutritionist-Dietitian*

- Provided comprehensive nutritional assessments and care planning in a sensitive way for Hospice patients with end-stage diseases (e.g., interviews, enteral and parenteral nutrition, counseling).

*Doctors Weight Loss Center, Carolina and Hato Rey- PR*

Nov 92 – Aug 97      *Dietitian and Director of Nutritional Services*

- Provided comprehensive nutritional assessments and care planning for patients (e.g., interviews, diet calculations, educational materials' developing, counseling, anthropometric measurements, menu planning).
- Developed, implemented and evaluated evidence-based nutrition guidelines for manage the patient's nutrition care.

*WIC Program, Diagnostic and Treatment Center, Canóvanas-PR*

Jan 89 – May 90      *Nutritionist*

- Provided nutritional assessments and care planning for WIC participants (e.g., interviews, diet calculations, educational materials' developing, counseling, anthropometric measurements, menu planning).
- Certified and re-certified participants.
- Supervised WIC staff.

**Honors and Awards (last 12 years)**

- |          |   |
|----------|---|
| Feb 2018 | Selected to be part of the Puerto Rico's Special Advisory Committee on Food Policy in Emergency Time.   |
| May 2017 | Medals for Academic Excellence and Leadership during the years of doctoral studies.   |
| Aug 2015 | Herbert and Nylda Gemple Scholarship from the Academy of Nutrition and Dietetics Foundation.  |
| Feb 2015 | Selected to be part of the Panel of Experts of Puerto Rico's Committee on Food and Nutrition for the development of the 8th edition of the Dietary Guidelines for Americans.        |
| Aug 2013 | Herbert and Nylda Gemple Scholarship from the Academy of Nutrition and Dietetics Foundation.  |
| Aug 2012 | Scholarship from the Colegio de Nutricionistas y Dietistas de Puerto Rico   |
| Apr 2012 | Outstanding Dietitian of the Year. Academy of Nutrition and Dietetics.  |
| Feb 2012 | Monetary recognition "in support of spread scientific works". Granted by the Scientific Authors' Incentive Program, Universidad del Turabo. Also granted in February 2011 and 2008. |

Carmen M. Pérez-Velázquez, DrPH, MHSN, RDN, LND

September 5, 2018

Oct 2009	Outstanding compliance with the accreditation standards. Recognized and granted by American Dietetics Association Commission on Accreditation for Dietetics Education (ADA-CADE)
Sep 2009	“Good work in assessing student learning outcomes” recognized by Universidad del Turabo and by the National Institute for Learning Outcomes Assessment, Illinois and Indiana, USA.
Sep 2008	Students' enrollment achievement recognition. Recognized by Dr. Dennis Alicea Rodríguez, Chancellor, Universidad del Turabo.
Nov 2007	Nominated Outstanding Employee. Universidad del Turabo, School of Health Sciences.
2004 - 05	United Who's Who Executive Registry

### **Service to the Community & Profession**

2016 – present	Volunteer at American Association of Retired Persons (AARP) ID #100351755 (10-15 hours/month)
2016 – present	Reader Advisory Panel, Penguin Random House
2011- present	Blogger- <a href="http://www.alimentacionsaludablepr.com">www.alimentacionsaludablepr.com</a> Reliable information about nutrition, diet and health for the Hispanic community around the world.
2013-2015	Treasurer- Academy of Nutrition and Dietetics (AND), PR Affiliate
2012-2013	Stamps Internal Auditor – Colegio de Nutricionistas y Dietistas de Puerto Rico
2011-2013	Public Policy Coordinator – AND, PR Affiliate.
2010-2013	Nutritionist- Dietitian Volunteer at Christian Elderly Home, Gurabo, Puerto Rico (16-20 hours/month)

### **Departmental Committee Participation**

2013- present	<i>Member</i> , Nutrition Dietetics Program Advisory Committee, UPR-RP Campus
2013- present	<i>Member</i> , Nutrition Dietetics Curriculum Committee, UPR – RP Campus
2008- 2012	<i>President</i> , Academic Affairs Committee, UT
2007- 2012	<i>President</i> , Assessment Committee: Student's Learning Outcomes & Faculty's Performance, UT
2007- 2012	<i>President</i> , Health Professions Department, UT
2006- 2012	<i>Member</i> , Student's Services Committee, UT
2005- 2012	<i>Leader</i> , Disasters Preparedness and Response Committee, UT
2005- 2007	<i>President</i> , Community Health Systems Department, UT
2004- 2012	<i>Advisor</i> , Nutrition-Dietetic Student's Association, UT
2003- 2012	<i>Member</i> , Executive Committee, UT
2003- 2012	<i>President</i> , Nutrition-Dietetic Program Accreditation Steering Committee, UT

### **Institutional Committee Participation (Universidad del Turabo)**

2011- 2012	<i>President</i> , Integrity Ad-Hoc Committee, Academic Board
2011- 2012	<i>Representative</i> , Institutional Security Committee
2009- 2010	<i>Representative</i> , Middle States Periodic Review Report
2008- 2009	<i>Representative</i> , Institutional Web
2006- 2007	<i>President</i> , Assessment Ad-Hoc Committee, Academic Board
2006- 2007	<i>Representative</i> , Academic Degree Committee, Academic Board
2005- 2006	<i>Representative</i> , Middle States Accreditation Visit Assessment Committee



2005- 2006	<i>Representative, Academic Programs Committee, Academic Board</i>
2005- 2006	<i>Representative, Undergraduate Academic Rules Ad-Hoc Committee, Academic Board</i>
2005- 2006	<i>Representative, Assessment Ad-Hoc Committee, Academic Board</i>
2004- 2005	<i>Representative, Academic Programs Committee, Academic Board</i>
2004- 2012	<i>Representative, Student Organizations Committee, Student's Affair Office</i>

### **Licenses and Affiliations**

Registered Dietitian-Nutritionist (RDN-10150)

Nutritionist-Dietitian (LND-945)

Member of the Colegio de Nutricionistas y Dietistas de Puerto Rico

Member of the American Institute for Cancer Research

Founding member of the Puerto Rico's Art Museum (#2567)

### **Social Media Presence**

11/11/11	Blog	<a href="http://www.alimentacionsaludablepr.com">www.alimentacionsaludablepr.com</a>
11/27/12	LinkedIn	<a href="http://www.linkedin.com/in/carmen-maria-perez-b15b1b60">www.linkedin.com/in/carmen-maria-perez-b15b1b60</a>
3/16/13	Researchgate	<a href="https://www.researchgate.net/profile/Carmen_Perez14">https://www.researchgate.net/profile/Carmen_Perez14</a>
4/06/14	Academia	<a href="http://urrrp.academia.edu/CarmenMaríaPérez">http://urrrp.academia.edu/CarmenMaríaPérez</a>
1/30/16	Goodreads	<a href="https://www.goodreads.com/CarmenMara">https://www.goodreads.com/CarmenMara</a>

### **Additional Competencies**

- Demonstrate effective oral and written communication techniques.
- Team player, self-starter, excellent organizer, ability to work to tight schedules.
- Driven to learn and apply new ideas.
- Knowledge and skills with Nudist NVivo data analysis software.
- Knowledge and skills with SPSS and Stata statistical analysis software packages.
- Knowledge and skills with Moodle & Blackboard learning management systems.
- Bilingual: Spanish (native language) & English.

### **References**

- Dr. Sheilla L. Rodríguez, UPR-MSc Professor/Coordinator SDoH Doctoral Program & Doctoral Dissertation Committee Chief. (787) 758-2525 ext. 4414 [sheilla.rodriguez@upr.edu](mailto:sheilla.rodriguez@upr.edu)
- Dr. José A. Vargas Vidot, Independent Senator, Commonwealth of Puerto Rico. (787) 725-8007 [jvargas@senado.pr.gov](mailto:jvargas@senado.pr.gov)
- Dr. Carlos E. Rodríguez, UPR-MSc Assistant Professor SDoH Doctoral Program. (787) 758-2525 ext. 4412 [carlos.rodriguez64@upr.edu](mailto:carlos.rodriguez64@upr.edu)
- Dr. Ivonne Anglero, Former UPR-MSc Professor & Director-Dietetic Internship Program. [ivonne.anglero@upr.edu](mailto:ivonne.anglero@upr.edu)
- Dr. María E. Rosa, Dean of School of Nursing and Health Sciences, Antillean Adventist University (787) 469- 9421 [mrosa@uaa.edu](mailto:mrosa@uaa.edu)
- Mrs. Edna Cordero, Former Nutritional Care Department Director. University of Puerto Rico- Carolina Hospital. (787) 239-4210 & (787) 753-9967

## MARÍA-ÉGLÉE PÉREZ HERNÁNDEZ

Phone: 1-787-7640000 ext. 88269  
maria.perez34@upr.edu

Department of Mathematics  
College of Natural Sciences  
17 Av Universidad Ste 1701  
San Juan, PR 00925-2537.

ORCID iD: 0000-0001-8641-8405  
Web of Science ResearcherID: W-3868-2017

### EDUCATION

---

<b>PhD</b>	Universidad Central de Venezuela, Mathematics Dissertation: "Bayesian Analysis of Contingency Tables and Generalizations Involving the Multiparameter Exponential Family" Advisor: Luis Raúl Pericchi G.	1994
<b>MS</b>	Universidad Simón Bolívar, Mathematics Thesis: "Analysis of Multistage Survey as a Bayesian Hierarchical Model" Advisor: Luis Raúl Pericchi G.	1987
<b>BS</b>	Universidad Simón Bolívar, Mathematics Graduated Cum Laude	1984

### AREAS OF ACADEMIC INTEREST

---

Bayesian Statistics. Biostatistics. Statistical Consulting.

### ACADEMIC APPOINTMENTS

---

<b>University of Puerto Rico, Río Piedras Campus</b> <b>Professor</b> , Department of Mathematics, College of Natural Sciences Teaching: Undergraduate and graduate courses in Probability and Statistics.	July 2016 to date
--	-------------------

<b>University of Puerto Rico, Río Piedras Campus</b> <b>Associate Professor</b> , Department of Mathematics, College of Natural Sciences Teaching: Undergraduate and graduate courses in Probability and Statistics.	July 2012 to July 2016
---	------------------------

<b>University of Puerto Rico, Río Piedras Campus</b> <b>Assistant Professor</b> , Department of Mathematics, College of Natural Sciences Teaching: Undergraduate and graduate courses in Probability and Statistics.	August 2005 to July 2012 Tenured since 2010
---	--

<b>Universidad Simón Bolívar, Caracas, Venezuela.</b> <b>Associate Professor</b> , Department of Scientific Computing and Statistics. Teaching: Undergraduate and graduate courses in Probability and Statistics.	1998-2005
---	-----------

<b>Universidad Simón Bolívar</b> , Caracas, Venezuela. <b>Assistant Professor</b> , Department of Scientific Computing and Statistics. Teaching: Undergraduate and graduate courses in Probability and Statistics.	1997-1998
<b>Universidad Simón Bolívar</b> , Caracas, Venezuela. <b>Assistant Professor</b> , Department of Mathematics. Teaching: Undergraduate courses of Calculus, Linear Algebra, Probability and Statistics; graduate courses in Statistics.	1994-1996
<b>Universidad Simón Bolívar</b> , Caracas, Venezuela. <b>Lecturer</b> , Department of Mathematics. Teaching: Undergraduate courses in Calculus, Linear Algebra, Numerical Analysis, Probability and Statistics.	1987-1994
<b>Universidad Metropolitana</b> , Caracas, Venezuela. <b>Lecturer (part time)</b> , Department of Mathematics. Teaching: Undergraduate courses in Probability and Statistics.	1986-1987
<b>Universidad Simón Bolívar</b> , Caracas, Venezuela. <b>Teaching Assistant</b> , Department of Mathematics.	1984-1987
<b>Universidad Simón Bolívar</b> , Caracas, Venezuela. <b>Research Assistant</b> , Department of Mathematics.	1983-1984

#### **PROFESSIONAL EXPERIENCE AND SYNERGISTIC ACTIVITIES**

---

- Interim Chair of the Department of Mathematics, University of Puerto Rico, Río Piedras Campus (from August 2019)
- Coordinator of the Graduate Program in Mathematics, University of Puerto Rico, Río Piedras Campus (April 2018 – August 2019)
- Member of the “Comité Institucional para la Protección de los Seres Humanos en Investigación” (Institutional Committee for the Protection of Human Beings in Research, CIPSHI), University of Puerto Rico, Río Piedras Campus (September 2016 – September 2019). This is the Institutional Review Board (IRB) of Río Piedras Campus.
- Member of the Personnel Committee, Department of Mathematics, University of Puerto Rico, Río Piedras Campus (from January 2012). President of the committee (September 2013-April 2018)
- Coordinator of Assessment of Student Learning, Department of Mathematics, University of Puerto Rico, Río Piedras Campus (September 2009-December 2011)
- Member of the Curriculum Committee, Department of Mathematics, University of Puerto Rico, Río Piedras Campus (from 2008)
- Member of the Faculty Ranking Committee, Universidad Simón Bolívar. (2002 - 2005). (this Committee assigns ranks -Assistant Professor, Aggregate Professor or Associate Professor- to newly tenured faculty). President of the Committee (2004-2005).
- Statistical Consultant for the Spanish Embassy at Venezuela (2003).
- Coordinator of the Program of Graduate Studies in Statistics at Universidad Simón Bolívar (2001-2005)
- Director of the Center for Statistics and Mathematical Software at Universidad Simón Bolívar (CESMa-USB) (1999-2001)
- Coordinator of Cultural Activities, Universidad Simón Bolívar (1997-1998).

- Statistical Consultant for the Biotechnology Laboratory of Cervecería Polar (1997)
- Statistical Consultant for the *Helicobacter pylori* research network (Venezuela) (1996)
- Statistical Consultant for INTEVEP (Research Institute of the Venezuelan Oil Industry) (1989)

## HONORS AND AWARDS

---

Elected Member of the International Statistical Institute	2018
WNAR/COBAL 2 award for best poster	2005
Researcher II of the Venezuelan Research Promotion System	2003-2006
Researcher I of the Venezuelan Research Promotion System	2001-2003
Researcher I of the Venezuelan Research Promotion System	1998-2000
Researcher I of the Venezuelan Research Promotion System	1995-1997
Junior Researcher of the Venezuelan Research Promotion System	1992-1995
MSc in Mathematics <i>With Honors</i> , Universidad Simón Bolívar	1987
Licenciado en Matemáticas <i>Cum Laude</i> , Universidad Simón Bolívar	1984

## GRANTS

---

- PI of the grant “Increasing Diversity in Interdisciplinary BD2K (IDI-BD2K)” NIH 1R25MD010399-0. PI: José E. García Arrarás, Patricia Ordóñez-Franco, María-Eglée Pérez. Awarded amount: \$1,000,000.00 (2015-2021)
- Research Associate of the grant “Biostatistics, Epidemiology and Bioinformatics Core”, University of Puerto Rico / The University of Texas M. D. Anderson Cancer Center Partnership for Excellence in Cancer Research. NCI 3U54CA096297-11S1, NIH: Pericchi, Luis (PI). Awarded amount (for the Core) \$550,000.00. (2013-2018).
- Co-PI of the grant “CREST - CATEC: Center for Applied Ecology and Conservation”. National Science Foundation, HRD-0734826. Renewal (2007-2013). Awarded amount: \$5,413; 122:00. PI: Dr. Elvira Cuevas. (Statistical advisor for the Center and part of the sub-project “Population Viability Analysis (PVA) of the Mona Island Hawksbill Turtle and Mona Island Iguana in Support of Caribbean-wide Management Efforts”). (Finished)
- Member of the Bioinformatics and Biostatistics Research Cluster of the Bioinformatics Resource Center (BiRC) of the Puerto Rico Alliance for the Advancement of Biomedical Research Excellence (AABRE), award P20RR016470 from the National Center for Research Resources (NCRR) of the National Institutes of Health (NIH) (2009-2014). PI: Dr. Sandra Peña de Ortiz. (Finished)
- CoPI of the grant “Accelerating Puerto Rican Students into the National Research Effort in Mathematics and Computer Science”. S-STEM 0630927, National Science Foundation, September 15, 2006 to August 31, 2013. Awarded amount: \$500,000.00. PI: Dr. Luis R. Pericchi. CoPI: Dr. H. Janwa, Dr. C. Corrada, Dr. M. E. Perez. (Finished)
- CoPI of the proposal “Seed Financial Support to the Center for Biostatistics and Bioinformatics (BBC) of the College of Natural Sciences of the University of Puerto Rico” funded by Merck, Sharp and Dohme Corp, 2009-2012. (Finished)
- CoPI of the grant “Resilience thinking for the sustainable management of the Rio Grande de Arecibo watershed: The use of a spatially explicit framework for understanding responses to perturbations”. Inter-Multidisciplinary Research Project, Decanato de Estudios Graduados e Investigacion, UPR, Ro Piedras Campus, 2008-2010. (Finished)
- PI of the grant “Objective Bayesian Methods in Population Genetics”. FIPI 8-80-104, Decanato de Estudios Graduados e Investigacion, UPR, Ro Piedras Campus, 2006-2007. (Finished).

- PI of two Research Group Grants, sponsored by the Dean of Research, USB (2000 and 2001) (Finished).
- CoPI of the grant “Development and Application of Computational Methods for the Quantitative Analysis of Complex Models and Data” CONICIT (Venezuela, 1997-2003.(Finished).
- CoPI of the grant “Development of Mathematical and Statistical Software” BID-CONICIT (Venezuela), 1992-1997 (Finished).

## ACADEMIC RESEARCH ADVISING

---

**University of Puerto Rico, Río Piedras Campus, San Juan, PR**

Aug 2005 to Present

### **Doctoral Students Advised**

**Daiver Vélez**, “Calibrating Significance Level And p-values In Linear Models”, 2019 (co-mentored with Luis R. Pericchi).

### **Masters Students Advised**

**Keyla Pagán**, “Fitting Von Bertalanffy Growth curves to the Virgin Island Boa”, 2011.

**Mariely Hernández**, “Bayesian Hierarchical Models for the conservation of Mona Island Iguana (*Cyclura cornuta stejnegeri*)”, 2011.

**Brenda Betancourt**, “Intrinsic Priors for testing Hardy-Weinberg Equilibrium”, 2008.

**Universidad Simón Bolívar, Caracas, Venezuela.**

Sep 1987 to Aug 2005

### **Doctoral Students Advised**

**Sabá Infante**, “Análisis Bayesiano semiparamétrico de datos de supervivencia usando procesos Beta discretizados” (Semiparametric Bayesian analysis of survival data using discretized Beta processes), 2004.

### **Masters Students Advised**

**Nora Monsalve**, “Modelaje Bayesiano espacio-temporal de los factores asociados con la incidencia del dengue en el área metropolitana de Maracay” (Spatio-temporal Bayesian analysis of factors associated with dengue incidence in Maracay metro area), 2006.

**Richard Rico**, “Modelaje Bayesiano espacial para la mortalidad infantil por diarreas en Venezuela” (Bayesian spatial modelling of infant mortality caused by diarrhea in Venezuela), 2003.

**Haydee Lugo**, “Consistencia del Contraste de Bondad de Ajuste Basado en Entropía” (Consistency of the Goodness of Fitness Test based on Entropy)”, 1996.

## Diploma Students Advised

**María Constanza Gomez.** “Análisis de la mortalidad materna en Venezuela 1999 - 2003” (Analysis of maternal mortality in Venezuela, 1999-2003), 2006.

**Hans Salas.** “Modelo lineal dinámico en la predicción de la mortalidad infantil y materna en Venezuela” (Dynamic linear model for predicting infant mortality and maternal mortality in Venezuela). 2005.

**Adollys Newmann.** “La Prueba de Aptitud Académica (PAA) como predictor de la Prueba de Admisión de la Universidad Simón Bolívar” (The National Academic Aptitude Test as a predictor for the results of the admission test at Universidad Simón Bolívar), 2001.

## PUBLICATIONS

---

### *Books*

L. Bravo, I. Llatas, M. E. Perez (2008) “Análisis de Datos con Técnicas Bayesianas”, Editorial IVIC, Caracas, Venezuela. ISBN 978-980-261-099-0

### *Book Chapters*

P. Ordóñez Franco, M.E. Pérez Hernández, H. Ortiz-Zuazaga, J. García Arrarás (2020) Building a Data Science Program Through Hackathons and Informal Training in Puerto Rico. In: Celi L., Majumder M., Ordóñez P., Osorio J., Paik K., Somai M. (eds) Leveraging Data Science for Global Health. Springer, Cham.  
doi: 10.1007/978-3-030-47994-7\_29

### *Journal Publications*

D. Vargas-Robles, N. Morales, I. Rodríguez, T. Nieves, F. Godoy-Vitorino, L.D. Alcaraz, M.E. Pérez, J. Ravel, L.J. Forney, M.G. Domínguez-Bello (2020) “Changes in the vaginal microbiota across a gradient of urbanization”. Scientific Reports, 10(1): 12487.  
doi: 10.1038/s41598-020-69111-x

P. Olaya-Arenas, E. Meléndez-Ackerman, M.E. Pérez (2020) “Long-term temperature and precipitation trends in the Luquillo Mountains, and their relationships to global atmospheric indices used in climate change predictions”. Caribbean Journal of Science, 50(1) : 107-131  
doi: 10.18475/cjos.v50i1.a13

J. Forero-Montaña, J.K. Zimmerman, T. Vakil, M. Nelson, M. E. Pérez, J. Medin (2019) “A narrow size diameter class model for tree growth and yield simulation in a mahoe (*Talipariti elatum* (SW.) Fryxell, *Malvaceae*) plantation in Puerto Rico”. Annals of Silvicultural Research, 43 (2), 52-61.  
doi: 10.12899/asr-1850

C. Nytch, E. Meléndez-Ackerman, M. E. Pérez, J. Ortiz-Zayas (2019) “Rainfall interception by six urban trees in San Juan, Puerto Rico”. Urban Ecosystems 22, 103-115  
doi: 10.1007/s11252-018-0768-4

- D. Vargas Robles, M. Magris, N. Morales, M. de Koning, I. Rodriguez, T. Nieves, F. Godoy-Vitorino, G. Sánchez, L. Alcaraz, L.Y Forney, M.E. Pérez, L. García-Briceño, L. van Doorn, and M.G. Dominguez Bello (2018) "High infection by only oncogenic Human Papillomavirus in Amerindians". *mSphere* 3 (3) e00176-18  
doi: 10.1128/mSphere.00176-18
- A. Avalos, E. Pérez, L. Vallejo, M.E. Pérez, C.I. Abramson, T Giray (2017) "Social signals and aversive learning in honey bee drones and workers" *Biology open* 6 (1), 41-49.  
doi: 10.1242/bio.021543
- J. E. Canner, A. J. McEligot, M. E. Pérez, L. Qian, X. Zhang (2017) "Enhancing Diversity in Biomedical Data Science" *Ethnicity and Disease* 27(2), 107-116.  
doi: 10.18865/ed.27.2.107
- M. E. Pérez, L.R. Pericchi, I. C. Ramírez (2017) "The Scaled Beta2 Distribution as a Robust Prior for Scales". *Bayesian Analysis* 12(3), 615-637.  
doi: 10.1214/16-BA1015
- C.P. Ruiz-Díaz, C. Toledo-Hernández, A. E. Mercado-Molina, M. E. Pérez, A. M. Sabat (2016) "The role of coral colony health state in the recovery of lesions". *PeerJ*  
doi: 10.7717/peerj.1531
- Y. A. Mariño, M. E. Pérez, F. Gallardo, M. Trifilio, M. Cruz, P. Bayman (2016) "Sun vs. shade affects infestation, total population and sex ratio of the coffee berry borer (*Hypothenemus hampei*) in Puerto Rico". *Agriculture Ecosystems & Environment* 222, 258-266.  
doi: 10.1016/j.agee.2015.12.031
- A. E. Mercado-Molina, C. P. Ruiz-Díaz, M. E. Pérez, R. Rodríguez-Barreras, A. M. Sabat (2015) "Demography of the threatened coral *Acropora cervicornis*: implications for its management and conservation", *Coral Reefs* 34 (4), 1113-1124.  
doi: 10.1007/s00338-015-1341-8
- F. Mérida, A. Chiu-Lam, A.C. Bohórquez, L. Maldonado-Camargo, M.E. Pérez, L. Pericchi, M. Torres-Lugo, C. Rinaldi (2015) "Optimization of synthesis and peptization steps to obtain iron oxide nanoparticles with high energy dissipation rates", *Journal of Magnetism and Magnetic Materials*, 394, 361-371.  
doi: 10.1016/j.jmmm.2015.06.076
- R. Rodríguez-Barreras, M. E. Pérez, A. E. Mercado-Molina, A. M. Sabat (2015) "Arrested recovery of *Diadema antillarum* population: Survival or recruitment limitation?", *Journal of Estuarine, Coastal and Shelf Science*, 162:167-174.  
doi: 10.1016/j.ecss.2015.06.021.
- R. Rodríguez-Barreras, M. E. Pérez, A. E. Mercado-Molina, S. M. Williams and A. M. Sabat (2014) "Higher population densities of the sea urchin *Diadema antillarum* linked to wave sheltered areas in north Puerto Rico Archipelago". *Journal of the Marine Biological Association of the United Kingdom*, 94, 1661-1669,  
doi: 10.1017/S0025315414000666.

L.R. Pericchi, C.A.B. Pereira, M.E. Pérez (2014) "Adaptive revised standards for statistical evidence". Proceedings of the National Academy of Science, Vol. 111, No. 19, doi: 10.1073/pnas.1322191111 (Online only)

M.E. Pérez, L.R. Pericchi (2014) "Changing statistical significance with the amount of information: The adaptive significance level". Statistics and Probability Letters, 85, 20-24.  
doi: 10.1016/j.spl.2013.10.018

J.Fúquene, M.E. Pérez, L.R. Pericchi (2014) "An alternative to the Inverted Gamma for the variances to modelling outliers and structural breaks in dynamic models". Brazilian Journal of Probability and Statistics, Vol. 28, No. 2, 288299.  
doi: 10.1214/12-BJPS207

I. G. Pantoja-Feliciano, J.C. Clemente, E.K. Costello, M.E. Pérez, M.J. Blaser, R. Knight and M.G. Domínguez-Bello (2013) "Biphasic assembly of the murine intestinal microbiota during early development". International Society for Microbial Ecology (ISME) Journal, 7, 1112- 1115.  
doi: 10.1038/ismej.2013.15

D.L. Delgado, M.E. Pérez, A. Galindo-Cardona, T. Giray and C. Restrepo (2012) "Forecasting the Influence of Climate Change on Agroecosystem Services: Potential Impacts on Honey Yields in a Small-Island Developing State". Psyche, Volume 2012, Article ID 951215.  
doi:10.1155/2012/951215

P. Olaya-Arenas, E. J. Meléndez-Ackerman, M. E. Pérez and R. L. Tremblay (2011), "Demographic response by a small epiphytic orchid", American Journal of Botany, 98, 2040-2048.  
doi: 10.3732/ajb.1100223

R. L. Tremblay, J. Ackerman and M. E. Pérez (2010), "Riding accross the selection landscape: fitness consequences of annual variation in reproductive characteristics", Philosophical Transactions of the Royal Society B, 365, 491-498.  
doi: 10.1098/rstb.2009.0239

N. Monsalve, Y. Rubio-Palis and M. E. Pérez (2010), "Spatio-temporal Bayesian hierarchical modeling of Dengue incidence in the metropolitan area of Maracay, Venezuela", Boletín de Malariología y Salud Ambiental, 50(2), 219-232.

R. L Tremblay, M. E. Pérez, M. Larcombe, A. Brown, J. Quarmby, D. Bickerton, G. French, A. Bould (2009) "Dormancy in *Caladenia*: A Bayesian approach to evaluating latency", Australian Journal of Botany, 57, 340-350.  
doi: 10.1071/bt08163

R. L Tremblay, M. E. Pérez, M. Larcombe, A. Brown, J. Quarmby, D. Bickerton, G. French, A. Bould (2009) "Population dynamic of *Caladenia*: Bayesian estimates of transition and extinction probabilities". Australian Journal of Botany, 57, No. 4, pp 351-360  
doi: 10.1071/BT08167



M. G. Domínguez-Bello, M. E. Pérez, M. C. Bortolini, F. M. Salzano, L. R. Pericchi, O. Zambrano-Guzmán, B. Linz (2008) "Amerindian *Helicobacter pylori* strains go extinct, as European strains expand their host range". PLoS ONE 3(10): e3307  
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0003307>  
doi: 10.1371/journal.pone.0003307

M.A. García-Amado, F. Michelangeli, P. Gueneau, M.E. Pérez, M.G. Domínguez-Bello (2007) "Bacterial detoxification of saponins in the crop of the avian foregut fermenter *Opisthocomus hoazin*". Journal of Animal and Feed Sciences, vol 16, Suppl. 2, 2007, 7881.  
doi: 10.22358/jafs/74460/2007

S. Infante, M. E. Pérez (2006) "Modelaje Bayesiano semiparamétrico de datos censurados usando procesos Beta correlacionados". Estadística (Journal of the Interamerican Statistical Institute) Vol. 58, No. 170-171, p. 71-85

M. A. García-Amado, J. R. Del Castillo, M. E. Pérez, M. G. Domínguez Bello (2005) "Intestinal D-glucose and L-alanine Transport in the Japanese Quail (*Coturnix coturnix*)". Poultry Science Vol 86, p. 947-950.  
doi: 10.1093/ps/84.6.947

I. Pérez-Schael, M. Escalona, B. Salinas, M. Materán, M.E. Pérez, G. González (2003) "Intussusception-associated hospitalization among Venezuelan infants during 1998 through 2001: anticipating rotavirus vaccines". Pediatric Infectious Diseases Journal, Vol. 22, No. 3, p. 234-239.  
doi: 10.1097/01.inf.0000055064.76457.f3

J. Kadane, E. Moreno, M.E. Pérez, L.R. Pericchi (2002). "Applying non-parametric robust Bayesian analysis to non-opinionated judicial neutrality". Journal of Statistical Planning and Inference, Vol. 102, No. 2, p. 425-439.  
doi: 10.1016/S0378-3758(01)00110-0

M. G. Domínguez-Bello, B. Beker, M. Guelrud, J. Vivas, S. Peraza, M.E. Pérez, L.R. Pericchi (2002) "Socioeconomic and seasonal variations of *Helicobacter pylori* infection in patients in Venezuela". American Journal of Tropical Medicine and Hygiene, Vol. 66, No. 1, p. 49-51  
doi: 10.4269/ajtmh.2002.66.49

M. E. Pérez, R. Glass, G. Alvarez, L.R. Pericchi, R. González, A. Kapikian and I. Pérez-Schael (2001). "Rhesus rotavirus-based quadrivalent vaccine is efficacious despite age, socioeconomic conditions and seasonality in Venezuela". Vaccine, Vol. 19, No 7-8, p. 976-981  
doi: 10.1016/s0264-410x(00)00211-5

B. Carlin and M. E. Pérez (2000) "Robust Bayesian Analysis in Medical and Epidemiological Settings". In Robust Bayesian Analysis, D. Ríos-Insúa and F. Ruggeri, Eds. Springer, New York, p. 351-372.  
doi: 10.1007/978-1-4612-1306-2\_19

M. G. Domínguez-Bello, F. Michelangeli, R. Romero, B. Beker, D. Lara, C. Morera, M. A. Vezga, E. Spardella, M. Guelrud, M. E. Pérez and L. R. Pericchi (1997) "Modification of the Christiansen urease test as an inexpensive tool for detection of *Helicobacter pylori*". Diagnostic Microbiology and Infectious Disease, Vol. 28, p. 149-152.  
doi: 10.1016/s0732-8893(97)00041-2

M. E. Pérez and L. R. Pericchi (1994). "A Case Study on the Bayesian Analysis of 2 x 2 Tables with all Margins Fixed". Brazilian Journal of Probability and Statistics, Vol. 8, No 1, p. 27-37.

M. E. Pérez (1994). "An automatic and proper Bayesian estimation analysis of 2x2 contingency tables with one and two fixed margins". TEST, Vol. 3, No. 2, p. 101-112.  
doi: 10.1007/BF02562696

L. R. Pericchi and M. E. Pérez (1994). "Posterior robustness with more than one sampling model" (with discussion). Journal of Statistical Planning and Inference, Vol. 40, No. 2/3, p. 279-294.  
doi: 10.1016/0378-3758(94)90126-0

M. Torres, M. E. Pérez, P. Dehollain (1988). "Impacto de la Estimulación a Madres Embarazadas en los Patrones Alimentarios de sus Hijos". Anales Venezolanos de Nutrición, Vol 1, p 11-18.

### ***Conference Papers***

(Peer-Reviewed)

Ordóñez Franco, P., Ramírez-Lugo, J., Ortiz Zuázaga, H., Pérez, M.E., Pericchi, L.R., García Arrarás, J.E. (2020) "Enhancing Undergraduate Education and Curriculum through an Interdisciplinary and Quantitative Initiative to Broaden Participation in Big Data" "Engineering, Integration, and Alliances for a Sustainable Development" "Hemispheric Cooperation for Competitiveness and Prosperity on a Knowledge-Based Economy": Proceedings of the 18th LACCEI International Multi-Conference for Engineering, Education, and Technology, July 27-31, 2020, Virtual Edition. ISBN-13 978-958-52071-4-1. ISSN: 2414-6390  
[http://laccei.org/LACCEI2020-VirtualEdition/full\\_papers/FP581.pdf](http://laccei.org/LACCEI2020-VirtualEdition/full_papers/FP581.pdf)

Ordóñez Franco, P., Pérez, M.E. and Ortiz Zuázaga, H. (2018) "Estimulando la innovación en Ciencia de Datos Interdisciplinaria a través de 'Hackathons' " (Spurring Innovation in Interdisciplinary Data Science through Hackathons). Innovation in Education and Inclusion: Proceedings of the 16th LACCEI International Multi-Conference for Engineering, Education and Technology, M. M. Larrondo Petrie, H. Alvarez (Eds.), LACCEI, Boca Raton, Florida, USA, 2018. ISBN 978-0-9993443-1-6. Full paper #345  
doi: 10.18687/LACCEI2018.1.1.345

Kadane, J.B., Moreno, E., Pérez, M.E. and Pericchi, L.R. (1999) "Applying non-parametric robust Bayesian analysis to non-opinionated judicial neutrality". In Proceedings of the First International Symposium on Imprecise Probabilities and Their Applications, p. 216-224.

M. E. Pérez and L. R. Pericchi (1992). "Analysis of Multistage Surveys as a Bayesian Hierarchical Model". Bayesian Statistics 4, Bernardo et al, Eds., pp. 723-730  
ISBN: 9780198522669

M. E. Pérez and L. R. Pericchi (1992). "Analysis of Multistage Surveys as a Bayesian Hierarchical Model". Proceedings of the IV CLAPEM, p. 189-207

(Abstract-Reviewed)

S. Julian Serrano, J. Pérez-Mayoral, M. Soto-Salgado, M. E. Pérez, M. J. González, M. Cruz-Correa (2017) "Red and Processed Meats Consumption and Genetic Ancestry Susceptibility to Colorectal Neoplasia: A Case-control Study" Journal of the Academy of Nutrition and Dietetics 117 (10), A236  
doi: 10.1016/j.jand.2017.08.062

---

## CONGRESS LECTURES, POSTERS AND PRESENTATIONS

### *US and international meetings*

M. E. Pérez and L. R. Pericchi. "Visualización y Modelización de los datos del COVID-19 y sus predicciones estadísticas: El caso de Puerto Rico".  
Simposio Internacional: Investigación y Soluciones Científicas en Tiempos De Crisis. Covid-19 y Más Allá: Seguridad Alimentaria, Salud, Educación, Medioambiente y Economía. Virtual symposium organized by the Ministry of Higher Education, Science and Technology (*Ministerio de Educación Superior, Ciencia y Tecnología, MESCyT*), Dominican Republic, June 2020. *Invited Talk*

M.E. Pérez. "Calibrating the amount of information through Bayesian asymptotics: The adaptive  $\alpha$ "  
VI Congreso Bayesiano de América Latina, VI COBAL, Lima, Perú. July 2019. *Invited talk*.

M.E. Pérez. "Bayes al rescate del científico atribulado, o como ajustar las pruebas clásicas de significancia" (Bayes to the rescue of the troubled scientist, or how to adjust classical significance testing).  
IV Congreso Bayesiano de América Latina, IV COBAL, Medellín, Colombia. July 2015. *Invited talk*.

M.E. Pérez, L.R. Pericchi. "Bayesian rescue for the troubled scientist: Can we make Null Hypothesis Significance Testing (NHST) work?"  
11th International Workshop on Objective Bayes Methodology (O-Bayes15). Valencia, Spain, June 2015. *Invited talk*.

M.E. Pérez. "The Scaled Beta2 Distribution as a robust prior for scales, and an Explicit Horseshoe Prior for locations".  
International Society for Bayesian Analysis World Meeting, ISBA 2014, Cancún, Mexico, July 2014

M.E. Pérez. Discussion of "Criteria for Objective Bayesian Model Choice" by Gonzalo Garcia Donato.  
10th International Workshop on Objective Bayes Methodology (O-Bayes13), Duke University, Raleigh, North Carolina, December 2013. *Invited discussion*.

M.E. Pérez. “Modelos Jerárquicos Bayesianos en el manejo de especies amenazadas: dos ejemplos” (Bayesian Hierarchical models for the management of endangered species: two examples).

Primer Simposio Centroamericano de Estadística Bayesiana (First Central American Symposium on Bayesian Statistics), San Jose, Costa Rica, July 2013. *Invited talk*.

M.E. Pérez, L. R. Pericchi. “Limiting shrinkage for the exceptional: a solution for the ‘Clemente Problem’ ”

Ninth Valencia International Meeting on Bayesian Statistics and 2010 World Meeting of the International Society for Bayesian Analysis, Benidorm, Spain, June 2010

L. R. Pericchi, M. E. Pérez. “The Case for a Fully Robust Hierarchical Models and Priors for Meta-analysis, Clinical Trials and Baseball Prediction”

XI Congreso Latinoamericano de Probabilidad y Estadística Matemática (CLAPEM), Naiguatá, Venezuela, November 2009.

M. Hernández, M. E. Pérez, M. A. García, N. Pérez-Buitrago, A. O. Álvarez and R.L. Tremblay. “Bayesian analysis of movement after release for headstarted Mona Island iguana (*Cyclura cornuta stejnegeri*)”.

XI Congreso Latinoamericano de Probabilidad y Estadística Matemática (CLAPEM), Naiguatá, Venezuela, November 2009.

M. A. García, R. L. Tremblay, M. E. Pérez: “Population Viability Analysis for Mona Iguana (*Cyclura cornuta stejnegeri*)”

Iguana Specialists Group Meeting, White Oaks, Florida, November 2008.

M. Hernández, M. E. Pérez, M. A. García, N. Pérez-Buitrago, A. O. Álvarez and R.L.

Tremblay. “Bayesian analysis of movement after release for headstarted Mona Island iguana (*Cyclura cornuta stejnegeri*)”.

Iguana Specialists Group Meeting, White Oaks, Florida, November 2008.

M. E. Pérez: “Applications of Bayesian Statistics to Life Sciences”.

SACNAS National Conference, October 2006, Tampa, Florida. *Invited talk*.

B. Betancourt and M. E. Pérez: “Objective Bayesian Analysis of Hardy-Weinberg Equilibrium”.

Eight Valencia International Meeting on Bayesian Statistics, June 2006, Benidorm, Spain.

S. Infante and M. E. Perez: “Semiparametric Bayesian Modelling of Censored Data Using Correlated Beta Processes”.

Second Latin American Congress on Bayesian Statistics (COBAL 2). February 2005, San Jose del Cabo, Mexico. *Winner of the WNAR/COBAL 2 award for best poster presentation*.

R. Rico and M. E. Pérez: “Bayesian Spatial Modeling for Infant Mortality Caused by Infectious Diarrhea in Venezuela”.

1st. IMS-ISBA Joint Statistical Meeting, July 2003, San Juan, Puerto Rico.

M. E. Pérez and L. R. Pericchi: “Projecting Priors across Models”.

Seventh Valencia International Meeting on Bayesian Statistics, June 2002. Tenerife, Spain.

L. R. Pericchi and M. E. Pérez: "Applications of Objective Bayes Factors and Objective Priors for Model Selection to Robust Approximate Inference and Adaptive Significance Levels".

Bayes, Frequentist and Likelihood Inference: A synthesis. July 2000, Mount Holyoke, USA.

M. E. Pérez: "Posterior moments in the Bayesian analysis of  $r \times c$  contingency tables".

VII CLAPEM, Latin American Regional Meeting of the Bernoulli Society. September 1998, Córdoba, Argentina.

M. E. Pérez: "Posterior moments in the Bayesian analysis of  $r \times c$  contingency tables".

Sixth Valencia International Meeting on Bayesian Statistics. June 1998. Alcossebre, Spain.

M. E. Pérez: "Measuring agreement: a Bayesian point of view".

V World Meeting of the International Society for Bayesian Analysis. August 1997, Istanbul, Turkey.

M. E. Pérez and L. R. Pericchi: "Probabilistic validation of a new medical test".

II Iberoamerican Meeting on Statistics. September 1995. Oaxaca, Mexico.

M. E. Pérez: "Bayesian estimation of association in contingency tables with one fixed margin".

III World Meeting of the International Society for Bayesian Analysis. September 1995, Oaxaca, Mexico.

M. E. Pérez and L. R. Pericchi: "Relationships involving posterior cumulants for the Multiparametric Exponential Family".

Fifth Valencia International Meeting on Bayesian Statistics, June 1994, Alicante, Spain.

M. E. Pérez, J. Kadane, E. Moreno and L. R. Pericchi: "Robust and Neutral Analysis of Evidence in Court".

V CLAPEM, Latin American Regional Meeting of the Bernoulli Society, June 1993, Sao Paulo, Brazil.

M. E. Pérez and L. R. Pericchi: "On Representation of Prior Impartiality".

Americas Workshop on Bayesian Statistics and Econometrics. December, 1992. Caracas.

M. E. Pérez and L. R. Pericchi: "Relationships for posterior cumulants and moments for the Multiparametric Exponential Family".

I Iberoamerican Meeting on Statistics and Operation Research. September, 1992, Cáceres, Spain.

M. E. Pérez and L. R. Pericchi: "Analysis of Multistage Survey as a Hierarchical Bayesian Model".

IV CLAPEM, Latin American Regional Meeting of the Bernoulli Society, September, 1990. Mexico City.

### ***Local Meetings***

L.R. Pericchi, M.E. Pérez. "Converting P-Values in Posterior Probabilities to Increase the Reproducible Scientific Findings"

XXXIII SIDIM, University of Puerto Rico, Rio Piedras Campus, March 2018, San Juan, Puerto Rico.

M. E. Pérez, L.R. Pericchi. "Bayesian rescue for the troubled scientist, or how to calibrate classical significance tests"

XXXI SIDIM, University of Puerto Rico, Humacao Campus, March 2016, San Juan, Puerto Rico.

M.E. Pérez, L.R. Pericchi. "Changing statistical significance as the amount of information changes: The adaptive significance level"

XXVIII SIDIM, Universidad Metropolitana, March 2013, San Juan, Puerto Rico.

L.R. Pericchi, M. E. Pérez. "Let the outstanding be outstanding: Roberto Clemente and Robust Hierarchical Bayesian models"

XXV SIDIM, University of Puerto Rico, Mayagüez Campus, March 2010, Mayagüez, Puerto Rico.

L. R. Pericchi, M. E. Pérez. "The case for a fully robust hierarchical Bayesian statistical analysis of clinical trials"

XXIV SIDIM, University of Puerto Rico, Rio Piedras Campus, March 2009, San Juan, Puerto Rico.

B. Betancourt, M. E. Pérez. "Intrinsic priors for testing Hardy-Weinberg equilibrium"

XXIV SIDIM, University of Puerto Rico, Rio Piedras Campus, March 2009, San Juan, Puerto Rico.

L. R. Pericchi, M. E. Pérez. "Adaptive Testing Intervals (ATI) by  $\alpha(n, p)$ "

XXIII SIDIM, University of Puerto Rico, Carolina campus, March 2008, Carolina, Puerto Rico.

M. E. Perez, L. R. Pericchi. "Objective Bayesian Analysis of Hardy-Weinberg Equilibrium"

XXII SIDIM, University of Puerto Rico, Ponce campus, February 2007, Ponce, Puerto Rico.

S. Infante, M. E. Perez "Semiparametric Bayesian Modelling of Censored Data using Correlated Beta Processes."

XXI SIDIM, Universidad del Turabo, February 2006, Gurabo, Puerto Rico

### **PROFESSIONAL AFFILIATIONS**

---

International Society for Bayesian Analysis (ISBA), 2000-Present.

International Statistical Institute, 2018-Present. (Elected member).

American Statistical Association, 2011-Present.

Founder member of the Puerto Rico Chapter (2014), Secretary of the first Board of Directors of the chapter (2014-2015).

## PROFESSIONAL SERVICE

---

### Symposium Co-Organizer

- Member of the Scientific Committee of the V Congreso Bayesiano de America Latina (COBAL V - Latin American Congress on Bayesian Statistics) (2017)
- Member of the Scientific Committee of the XVI CLAPEM (Latin American Congress in Probability and Mathematical Statistics) (2016).
- Member of the Permanent Committee of the “Seminario Interuniversitario de Investigación en Matemáticas (SIDIM)” (Interuniversity Mathematical Research Seminar), Puerto Rico (2007-2014)
- Member of the Local Organizing Committee of the Americas Workshop on Bayesian Statistics and Econometrics (1992)

### Peer-Reviewed Articles for:

- MDPI Econometrics (2020)
- Statistical Methods & Applications (2018, 2019)
- Test (1994, 2019)
- Bayesian Analysis (2007 and 2009-2012)
- Computational Statistics and Data Analysis (2013)
- Proceedings of the XXII SIDIM (2007)
- Journal of Statistical Planning and Inference (2005)
- “Francisco Aranda Ordaz” competition for best PhD thesis in Statistics written by a Latin American (2001)

## LANGUAGES

---

**Spanish:** Native.

**English:** Written and spoken

## PROGRAMMING LANGUAGES AND STATISTICAL TOOLS

---

S, R, WinBUGS, JAGS, FORTRAN, SAS, IMSL, MINITAB, LaTeX.

## OTHER

---

Citizenship: US

# Elsa Pinto López, PhD, RDN, LND

Email: elsa.pinto@upr.edu

787.764.0000 x. 88590

---

## EDUCATION

---

Florida International University, Miami, FL. ■ 2008

Ph.D. in Dietetics and Nutrition

Dissertation topic: Dietary Patterns and Substance Use among Latino Women

University of Puerto Rico, Medical Sciences Campus, PR ■ 2002

M.S. in Environmental Health

Thesis Title: “Hygienic quality of street-vended ice cream”

University of Puerto Rico, Río Piedras Campus, PR ■ 1998

B.S. in Dietetics and Nutrition

---

## ADDITIONAL TRAINING

---

Nutritional Epidemiology ■ Johns Hopkins University, Bloomberg School of Public Health,  
Summer Institute on Biostatistics and Epidemiology ■ 2005

Certificate of Training in Adult Weight Management ■ 2001

---

## AWARDS

---

Young Dietitian of the Year, American Dietetic Association, Puerto Rico Affiliate ■ 2002

Achievement Award, Center for Research on US Latinos HIV/AIDS and Drug Abuse ■ 2007

Distinguished Educator of the Year, Academy of Nutrition and Dietetics ■ 2010

Distinguished Educator of the Year, Academy of Nutrition and Dietetics ■ 2017

Innovative Dietitian in Research, *Colegio de Nutricionistas y Dietistas de PR* ■ 2019



---

---

## RESEARCH SUPPORT

---

---

Title: Nutrition Live at UPR-RP; Distance Education within the Nutrition Curriculum

Support: US Department of Agriculture, NIFA Project goals:

Role: Project director

Funding approved: \$62,000

Date: 8/2011 – 2014

Title: Improved facilities for food and science laboratories at University of Puerto Rico

Support: US Department of Agriculture, HSI Project goals:

Role: key personnel

Funding approved: \$289,000

Date: 8/2011 – 2014

Title: Diet patterns and drug use among Latinas

Support: National Institute of Health, National Institute on Drug Abuse, Predoctoral Fellowship Award (F31)

Project goals: Describe the dietary intake among Hispanic women with reported substance abuse and how it relates to the varying levels of illicit drugs use, heavy alcohol use and/or non-medical use of prescription drugs. An observable association between dietary patterns and addiction severity may contribute to increase our understanding of the health consequences of drug abuse by a measure of dietary quality and to target interventions for substance abusers

Role: Principal investigator

Funding approved \$28, 497

Date: 2006-2007

---

---

## RESEARCH EXPERIENCE

---

---

Trajectory of health status among undergraduate students during their first two years of transition to university life

Role: Principal investigator

Date: August 2014 – 2018

Study objective: Longitudinal descriptive research to assess undergraduate students health status by measuring: dietary intake, anthropometric measurements, biochemical values such as lipid profile, glucose, c reactive protein, vitamin D, existing chronic conditions and risky health behaviors. Funds approved: \$20,000

Predictive factors related to success in passing the registered dietitian exam

Role: principal investigator

Date: May 2013- October 2016

Study objective: the study aims to identify factors related to successful passing of the exam by examining study time and frequency, educational attainment at time of exam, work experience, self-efficacy, stress management and perceived content areas of greater difficulty.

Program evaluation of Nutrition Live; distance education courses within Nutrition and Dietetics curriculum

Role: Principal investigator

Date: September 2013 – June 2015

Study objective: This study aims to examine satisfaction, personal relevance and active learning among students who have taken online nutrition courses as part of the Nutrition live Project funded by USDA.

Pilot project on nutrition and physical activity education at a public junior high school

Role: Principal investigator

Date: 2010-2013

Study objective: Examine impact on weight and food consumption, specifically fruits and vegetables after participating in a pilot project focused on nutrition education and physical activity interventions among 13-14 year old boys and girls in a public junior high school.

Systematic review of the literature on student learning assessment in nutrition and dietetics

Role: Principal investigator

Date: 2012-2013

Study objective: Identify the teaching and assessment strategies in Social Work and Nursing field that can be used in Nutrition and Dietetics and describe the best practices in assessment of learning across the three identified disciplines.

Cultural adaptations in data collection of Latino women

Role: co-investigator

Date: 2007

Study objective: to assess the appropriateness of the questionnaire utilized in the Latino Women's Study, and identify potential barriers and challenges that may be encountered when conducting research with Latino women in the United States.

Dietary patterns and cardiovascular risk factors among women 50 years and older

Role: Principal investigator

Date: January 2005-2007

Study objective: Secondary analysis of NHANES national survey data to identify dietary patterns among Latinas (>50 y/o) as it related to cardiovascular disease risk factors and alcohol use.

Onset of substance use among Latino gang members

Role: research assistant

Date: January 2004-2005

Coding of qualitative interviews among Hispanic gang members to learn about the factors associated to the onset of substance use.

Masters Thesis research

Date: 2000-2002

Study objective: Describe the hygienic quality (i.e., growth of coliform bacteria) of street vended ice cream in Puerto Rico.

---

---

## WORK EXPERIENCE

---

---

Professor, University of Puerto Rico, Río Piedras Campus  
Nutrition and Dietetics Program August 2019-present

Associate Professor, University of Puerto Rico, Río Piedras Campus  
Nutrition and Dietetics Program August 2014-2019

Director, Didactic Program in Dietetics  
Nutrition and Dietetics Program August 2016-present

Coordinator, Student Learning Assessment  
Nutrition and Dietetics Program August 2010-present

Assistant Professor, University of Puerto Rico, Río Piedras Campus  
Nutrition and Dietetics Program January 2008-2014  
Courses taught include Research Methods in Nutrition, Nutritional Biochemistry, Methods in Nutrition Education and Supervised Practicum in Nutrition Education.

Outreach Coordinator at Center for Research on US Latinos  
HIV/AIDS and Drug Abuse January 2004–2007

- Developed and implemented a 24-hour dietary recall protocol using the 5-step multiple pass method, designed for NHANES, to collect data from Latino women in Miami, FL.
- Coordinate and implement outreach strategies to recruit Latino women for a one-time face-to-face interview to learn about substance using behaviors among Latino mothers and daughters in Miami, FL.
- Data collection and preliminary analysis for a study on the intergenerational drug use among Latina mothers and daughters.

Research assistant August 2003-2004

- Participated in the revision of the Florida Dietetic Association Diet Manual.
- Conducted a comprehensive review of the literature on the cost-effectiveness of medical nutrition therapy for the management and prevention of chronic diseases. Benefits to older adults and the impact to public health from medical nutritional therapy were also included in this review. The document was submitted to the State of Florida Legislature for consideration of improving insurance coverage for nutrition services.

Nutritionist / Dietitian, Triple – S, Inc., PR	2001 - 2003
Contributed in the design and development of a nutrition education program using Disease Management principles. Developed nutrition education materials and newsletters for the insured. Prepared and conducted nutrition conferences and educational activities at the workplace according to prevalence of health conditions. Educational program focus: Weight Management, Diabetes, Asthma and Prenatal care.	
Nutritionist / Dietitian, Caparra Wellness Center, PR	2002 - 2003
Provided medical nutrition therapy and counseling to individuals as referred by primary physician. Counseling included weight management, diabetes and other chronic diseases. Offered education and diet instruction to maintain adequate food and nutrient intake for individuals undergoing bariatric surgery.	
Dietetic Technician, Ashford Presbyterian Hospital, PR	1998-1999

---

## PUBLICATIONS, PAPERS AND PRESENTATIONS

---

### Journal articles

- Pinto, E. Toro, B. (In development). Dietary intake and health behaviors among first year college students.
- Pinto, E. Toro, B., Meléndez, J. (2016). Metaevaluation of a distance education project within a nutrition and dietetics curriculum. HETS journal online. Fall issue.
- Pinto, E., Toro, B., Vicéns, L. (2014). Nutrition and physical activity Interventions for childhood obesity; Lessons Learned. *Ecology of Food and Nutrition*. 53(5):503-513.
- Rahill, G., Jean-Gilles, M., Thomlison, B., Pinto-Lopez, E. (2011). Metaphors as contextual evidence for engaging Haitian clients in practice: A case study. *American Journal of Psychotherapy*, 65(2), 133-149.
- De La Rosa, M., Dillon, F., Ganapati, E., Rojas, P., Prado, G., Pinto E. (2010). Mother-daughter attachment and substance abuse among Latinas in the United States. *Journal of Drug Issue*,. 40(2):379-404.
- Rahill, G. Pinto, E. (2009). The practice and use of informal injectionists among U.S. Haitian and Latino immigrants: A call for health research to inform health practice. *Journal of Social Work Practice in the Addictions*, 9(3): 348-351.

Rahill, G., Pinto, E., Vanderbiest, A. & Rice, C. (2009). What Is relapse? a contemporary view of treatment for alcoholism. *Journal of Social Work Practice in the Addictions*, 9(3): 246-262.

Pinto, E., Rice, C., Weddle, D. & Rahill, G. (2008). Dietary patterns derived by cluster analysis and cardiovascular risk factors among Hispanic women; NHANES 2001-2002. *Journal of the American Dietetic Association*, 108(2): 248-256.

De La Rosa, M., Rahill, G., Rojas, P. & Pinto, E. (2007). Cultural adaptations in data collection: field experiences. *Journal of Ethnicity in Substance Use*, 6(2):163-80.

## Book Chapter

De La Rosa, M., Rahill, G., Rojas, P., Pinto, E. (2007) Cultural adaptations in data collection: Field experiences. In Myers, P., L. (Ed.) 21st Century Research on Drugs and Ethnicity: Studies Supported by the National Institute on Drug Abuse. New York: The Haworth Press.

## Peer-reviewed presentations

Pinto, E. Toro, B., Cruz, Juan. (October, 2016). Factors that May Influence Success in the Registered Dietitian Exam. Food and Nutrition Conference Expo, Academy of Nutrition and Dietetics, Chicago, IL.

Pinto, E., Toro, B., Vicéns, L., Cruz, A., Jaime, C. (2016) La alimentación de los jóvenes antes de comenzar sus estudios universitarios; Resultados de la primera fase de la Trayectoria del Perfil de Salud. V Congreso Internacional de Salud Pública, San Juan, PR.

Pinto, E., Toro, B., Cruz., C., Figueroa, J. (2013). *Impacto de un programa piloto de educación en actividad física y nutrición*. VI Congreso Internacional de Universidades Promotoras de la Salud.

Elsa Pinto, Patria Rojas, Mario De La Rosa, & Guitele Rahill (April, 2010). *Cultural adaptations in the collection and entry of dietary intake data: field experiences with Latino women*. Poster presented at the 2010 *Federation of American Societies for Experimental Biology*, Anaheim, California.

Rojas, Duan, R., De La Rosa, M., Pinto, E. (2008). Acculturation and diet quality among a sample of Latino mothers and daughters. 2nd Health Disparities Conference. Xavier University of Louisiana. College of Pharmacy. April 11, New Orleans, Louisiana.

Rojas, P., Duan, R., Pinto, E., De La Rosa, M., Craig, S. (September, 2007). *Cultural identity and diet quality in a community sample of Latino women*. Poster presented at the 2007 National Hispanic Science Network Annual Conference, Miami, FL.

Pinto, E. De La Rosa, M., Weddle, D., Newman, F., Rafie, C., Dixon, Z., Himburg, S. & Rojas, P.

(April, 2007). *"Diet quality among a community sample of Latinas reporting drug and alcohol use; The Latino Women's Study"*. Poster session presented at the 2007 Annual Experimental Biology Conference, Washington, DC.

Pinto, E., Rice, C., Weddle, D. & Rahill, G. (March, 2007). "The Relationship among Cardiovascular Risk Factors, Dietary Patterns, Alcohol Consumption and Ethnicity among Women 50 Years and Greater". Presented at the Annual Forum of Research and Education of the University of Puerto Rico, Medical Sciences Campus. San Juan, PR.

Rahill, G., Pinto, E., Vanderbiest, A. & Rice, C. (January, 2007). *What Is Relapse? a contemporary view of treatment for alcoholism*. Paper presented at the Society for Social Work Research. San Francisco, California.

Pinto, E., Rice, C., Weddle, D. (September, 2006). *Dietary patterns of older women; Analysis of NHANES 2001-2002*. Poster session presented at the 2006 Annual Food and Nutrition Conference of the American Dietetic Association, Honolulu, Hawaii.

Pinto, E., Rojas, P., De La Rosa, M. & Rahill, G. (September, 2005). *Data collection phase of drug using and non-using Latino women: field experiences*. Poster session presented at the Fifth National Conference of the National Hispanic Science Network on Drug Abuse, Miami, FL.

Pinto, E. (January, 2005). *Predoctoral fellowship application; Dietary patterns and substance use among Latino women*. Poster session presented at the first annual conference of the Center for Research on US Latinos on HIV/AIDS and Drug Abuse, Miami, FL.

### Newsletters/Magazines/Interviews

Pinto, E., (2012). Interview by Laura Quintero for Diálogo newspaper; *Cuidado con las dietas "novedosas"*.

Pinto, E. (2009). Interview by Yaritza Rivas for El Nuevo Día newspaper; *Qué comer y Qué no*.

Pinto, E. (2003). Calidad higiénica de helados distribuidos por vendedores ambulantes. *Equilibrium*, 3, 23.

Pinto, E. (2002). Contaminantes ambientales en los alimentos. *Equilibrium*, 2, 18.

---

### GUEST LECTURER/PRESENTER

---

Pinto, E. (2018). *¿Sabías qué? La etiqueta cambió*. Programa de Adiestramientos de la Oficina de Recursos Humanos. Presented at Plaza Universitaria UPRRP.

Pinto, E. (2013). *Cómo seleccionar alimentos saludables y a su vez económicos*. Programa de Adiestramientos de la Oficina de Recursos Humanos. Presented at Plaza Universitaria UPRRP.

Pinto, E. (2013). *La Salud y la Nutrición en la Productividad*. Conferencia de Desarrollo Integral - esencia de la competitividad. Instituto de Competitividad Empresarial. Presented at Sheraton Old San Juan Hotel, PR.

Pinto, E. (2012). *Nutrición: Buenos hábitos alimentarios*. Conferencia para la Semana del Personal Administrativo del Sistema de Bibliotecas. Presented at Biblioteca José Lázaro UPR-RP.

Pinto, E. (June 2011) *Etiqueta y Protocolo en la mesa*, Presented at Departamento de Estudios Graduados e Investigación UPR-RP

Pinto, E. (2011). *Control de Peso*. Programa de Adiestramientos de la Oficina de Recursos Humanos de UPRRP. Presented at Plaza Universitaria UPRRP.

Pinto, E. (2010). *Taller para Desarrollar el Portafolio para mantener credencial de Registered Dietitian*, Annual conference of American Dietetic Association, PR chapter (now Academy of Nutrition and Dietetics), Presented at March 12, Verdanza Hotel, San Juan, PR.

Pinto, E. (June 2009) *Etiqueta y Protocolo en la mesa*, Presented at Departamento de Estudios Graduados e Investigación at UPR-RP.

Pinto, E. (2008). *Relationships among dietary intake, substance use and acculturation-related factors among Latinas in Miami-Dade*. Center for Research on US Latino HIV/AIDS and Drug Abuse, Presentation series, August 8, Miami, FL.

Pinto, E. (2008). *Effectiveness of Phytosterols in Cholesterol Management*, 32nd Annual Convention of the College of Nutritionists and Dietitians of Puerto Rico, Presented August 16, Wyndham Río Mar, Río Grande PR.

Pinto, E. (2005). *Nutrition and substance abuse*. Florida Career College, Miami, FL - Medical Lecture Series.

---

#### PROFESSIONAL ACTIVITIES

---

Editor, American Dietetic Association, PR Chapter, San Juan, PR	2002-2003
Secretary, Association of Graduate Students in Dietetics and Nutrition - FIU University	2004-2005
Vice-President, Association of Graduate Students in Dietetics and Nutrition FIU University	2005-2010

Editor, of the American Dietetic Association's, PR Affiliate yearly publication <i>Avances en Nutrición</i> .	2008-2010
President, American Dietetic Association, PR Affiliate, San Juan, PR	2008-2009
Advisor, American Dietetic Association, PR Chapter, San Juan, PR	2009-2010
Delegate, Academy of Nutrition and Dietetics, PR Chapter, San Juan, PR	2011- 2014
Member of the Advising Committee of Health and Nutrition at the <i>Comisión de Alimentos y Nutrición de PR (CAN)</i>	2011
<i>Vocal</i> , Colegio de Nutricionistas y Dietistas de PR	2018-2019
Editor of the Academy of Nutrition and Dietetics, PR Affiliate member's newsletter	2019-present

#### PROFESSIONAL AFFILIATIONS/LICENSURES

- 
- Academy of Nutrition and Dietetics
  - Registered Dietitian #875629
  - Member of *Colegio Nutricionistas y Dietistas de PR*
  - Licensed Nutritionist and Dietitian in Puerto Rico - licencia #1249
  - National Hispanic Science Network on Drug Abuse
  - American Society for Nutrition



---

# *Nancy J. Correa-Matos*

## *Home:*

Córdoba Street #3-25  
Urb. Torrimar,  
Guaynabo  
PR 00966

(787) 948-1220 (cell phone)

*email:* njcorreamatoss@yahoo.com

## *Work:*

UPR-Rio Piedras  
College of Natural Sciences  
Nutrition Program  
PO Box 70377  
San Juan, PR 00936-8377  
(787) 764-0000 ext. 88581

---

## EDUCATION

### **University of Illinois, Urbana-Champaign, IL**

•**PhD in Nutritional Sciences and Biochemistry**- Division of Nutritional Sciences,  
College of Agricultural, Consumer and Environmental Sciences (May 2006)

Advisors: Dr. Sharon M. Donovan, R.D.

Dr. Kelly A. Tappenden, R.D.

Dissertation title: The effect of fermentable fiber in the neonatal intestinal tract and  
resistance to *Salmonella typhimurium* infection.

### **University of Puerto Rico, Medical Sciences Campus San Juan, Puerto Rico**

•**Master in Public Health in Nutrition**, Graduate College of Public Health, (1987-1990)  
Magna cum Laude, GPA: 3.8/4.0

Thesis title: The weekend and weekday differences in food consumption patterns and its  
relation with chronic diseases in adults living in Bayamon, Puerto Rico during 1988-  
1989.

### **Veteran's Administration Hospital, San Juan, Puerto Rico**

•**Post Graduate Dietetics Internship**, 1986-1987

Outstanding Intern Award, 1987

### **University of Puerto Rico, Rio Piedras Campus Rio Piedras, Puerto Rico**

•**BS in Nutrition and Dietetics**, School of Home Economics, Department of Education,  
1982-1986

Magna cum Laude, GPA 3.9/4.0

## TEACHING EXPERIENCE

### **University of Puerto Rico, Río Piedras Campus, Río Piedras, Puerto Rico**

- **Associate Professor**, College of Natural Sciences, Nutrition Program, (July 1, 2017- present)
- Teaching undergraduate courses: Human Nutrition, Human Biochemistry, Clinical Dietetics, Integrative Nutrition.
- Developing and participating in research grants and course curriculums.

**University of Puerto Rico, Río Piedras Campus, Río Piedras, Puerto Rico**

- **Interim Program Director**, College of Natural Sciences, Nutrition Program, (July 2018)

**University of Puerto Rico, Río Piedras Campus, Río Piedras, Puerto Rico**

- **Assistant Professor**, College of Natural Sciences, Nutrition Program, (January, 2017- June 31, 2017)
- Teaching undergraduate courses: Human Nutrition, Clinical Dietetics, Nutrition Care Process and Professional Aspects of Nutrition & Dietetics
- Developing research grants and course curriculums.

**University of Puerto Rico, Mayagüez Campus at Jardín Botánico, Río Piedras, Puerto Rico**

- **Assistant Professor**, Nutrition Program, Extension Program, Agricultural Sciences Program, College of Agricultural Sciences (August 2012- December 2016).
- Teaching courses of basic concepts in community nutrition to health, home economics professionals and agricultural agents within the non-formal curriculum;
- Developing course curriculum for the prevention of adults and childhood obesity;
- Developing educational programs for federal grants and for the community.

**University of Puerto Rico, Río Piedras Campus, Río Piedras, Puerto Rico**

- **Instructor**, College of Education, Family and Consumer Sciences Program, (January- May 2016);
- Teaching a graduate course: Cultural Aspects of Nutrition.

**University of Puerto Rico, Medical Sciences Campus, Río Piedras, Puerto Rico**

- **Instructor**, School of Public Health, Nutrition Program, (August 2015- May 2016);
- Teaching a graduate course: Nutrition Assessment

**University of Puerto Rico, Medical Sciences Campus, Río Piedras, Puerto Rico**

- **Preceptor**, Dietetic Internship Program, (August 2012- present);
- Community Rotation & Research Experience

**Department of Health, Puerto Rico, Río Piedras, Puerto Rico**

- **Preceptor**, Dietetic Internship Program, (August 2012- present);
- Community Rotation & Research Experience

**University of North Florida, Jacksonville, Florida**

- **Assistant Professor**, Nutrition Program, Department of Public Health, College of Health (August 2009- May 2012)
  - *Teaching courses of basic concepts in nutrition, clinical nutrition, advanced nutrition and metabolism to undergraduate and graduate level dietetic students.*
- **Visiting Assistant Professor**, Nutrition Program, Department of Public Health,

College of Health (August 2005- May 2009)

- *Teaching courses of Nutrition and Metabolism to undergraduate and graduate level dietetic students.*

**University of Puerto Rico, Río Piedras, Puerto Rico**

**Instructor, Nutrition and Dietetics**, School of Home Economics University of Puerto Rico, Río Piedras Campus, *Rio Piedras, Puerto Rico* (1993-1994)

- *Teaching courses in food science, menu planning, principles of management, seminars in clinical nutrition in renal diseases and parenteral nutrition, coordinate internships application process for the students.*

**Instructor, Nutrition and Dietetics**, College of Natural Sciences University of Puerto Rico, Río Piedras Campus, *Rio Piedras, Puerto Rico*. Instructor's Collaborator for course NUTR 5997. (2014)

- *Teaching several lessons for the course: Contemporary Issues in Foods and Nutrition, Professional Seminar: Principles of Nutrition, Dietetics, and Management of Food and Nutrition Programs and Services.*

**University of Puerto Rico, Río Piedras, Puerto Rico**

**Instructor, Nutrition and Dietetics, Graduate College, Family and Consumer Sciences**, University of Puerto Rico, Río Piedras Campus, *Rio Piedras, Puerto Rico* (2015-2016)

*Teaching graduate course in sociocultural aspects of nutrition, evaluation of food and culture, providing field experience in ethnic restaurant evaluation, ethnic recipe modification into healthy culturally-specific-choices.*

**University of Puerto Rico, Medical Sciences Campus, Puerto Rico**

**Instructor, Nutrition in Public Health**, Graduate School of Public Health, Medical Sciences Campus (2015-2016)

*Teaching graduate course of nutritional status assessment for different populations, Prepare and assess pilot study on nutrition status of a given population.*

## **PROFESSIONAL/RESEARCH EXPERIENCE**

**Research Specialist** Department of Food, Science and Human Nutrition, University of Illinois, Urbana-Champaign, IL (2003 to present)

*Conducting animal studies, collecting and performing biochemical, molecular and functional analyses of tissue samples.  
Performing statistical analyses and manuscripts preparation.*

**Coordinator of Surgical Residency Program- Mayaguez Medical Center, Mayaguez, Puerto Rico** (1994-1995)

*Preparation of the handbook for the surgical residency programs.  
Developing objectives, goals and standards of practice for the residency program.  
Participation in the in-site visitation for the accreditation of the program.*

**Research analyst- Young & Rubicam Marketing Company, San Juan, Puerto Rico** (1984-2020 CV- Dr. Nancy Correa Matos

1986)

*Conducting focus groups to evaluate people preferences of different food products available in the market.*

*Analyses and preparation of research outcomes.*

## **CLINICAL EXPERIENCE**

### **Dietetic Consultant/Private Practice, Mayaguez, Puerto Rico (1994-1996)**

*Nutritional evaluation and diet education of non-hospitalized patients.*

*Coordinating health promotion programs for different companies.*

### **Nutritional Support Dietitian- University District Hospital Medical Center, San Juan, Puerto Rico (1990-1993)**

*Providing enteral and parenteral nutrition care for patients in intensive care units (cardiac, medical, trauma, surgical, neurosurgical, obstetrics, neonatal, and oncology units).*

*Nutrition evaluation and diet education for patients and families.*

*Proctor for dietetic interns.*

*Seminars for medical residents and staff.*

*Quality Control dietitian.*

### **Clinical Dietitian-University District Hospital Medical Center, San Juan, Puerto Rico (1989-1993)**

*Providing nutritional care for hospitalized patients.*

*Providing nutritional education for non-hospitalized patients in areas such as: renal, cardiovascular diseases, pregnancy and obesity.*

*Providing in service training to nursing staff, peers and students.*

## **SPECIAL CERTIFICATIONS**

Certificate Serv-Safe Food Handler, American Restaurant Association (valid from 2020 to 2023)  
Certificate in Disasters Preparedness, ACCME, Puerto Rico, 2018  
Teaching On-Line Certification, University of Puerto Rico, Rio Piedras, PR, 2018  
Dietetic Preceptor Training and Certificate, Commission on Dietetic Registration, 2013  
Children an Adolescent Weight Management Specialist On-Line Certificate, 2013  
Adult Weight Management Specialist Certificate, Savannah, Georgia, 2012  
Commission on Dietetic Registration Exam Item Writing Certificate, 2011  
Teaching-on- Line Certification (TOL), University of North Florida, 2011

## **AWARDS**

**2020- Recipient, Goya Excellence Award**, Academy of Nutrition and Dietetics Puerto Rico Chapter and Goya Company, Bayamón, Puerto Rico.

**2019- Recipient, Educator of the Year Award**, Academy of Nutrition and Dietetics, Puerto Rico Chapter, San Juan, Puerto Rico.

**2019- Nominated, Outstanding Education Award**, Academy of Nutrition and Dietetics, Nutrition and Dietetic Educators and Preceptors Group. Illinois, United States.

**2017-Recipient, Innovations in Nutrition Education Award, Puerto Rico** Nutritionists and Dietitians Association, San Juan, Puerto Rico.

**2012-Nominated, Outstanding Graduate Teaching Award.** Faculty Association, University of North Florida, 2012.

**2012-Nominated. Outstanding Undergraduate Teaching Award.** Faculty Association, University of North Florida, 2012.

**2011-Recipient, Outstanding Undergraduate Teaching Award.** Faculty Association, University of North Florida, 2011.

**2011-Finalist, Mentor of the Year**, STARS, Scholars Transforming Research, Honors Program, University of North Florida, 2011.

**2010-Best Instructor**, Awarded by Eta Sigma Gamma Student Sorority, University of North Florida, 2010.

**2010-Outstanding Dietitian of the Year**, Jacksonville, Dietetic Association, Florida, 2010.

**2009- Best Instructor**, Awarded by Eta Sigma Gamma Student Sorority, University of North Florida, 2009.

**2008-Best Instructor**, Awarded by Eta Sigma Gamma Student Sorority, University of North

Florida, 2008.

**2006-President's Mentor Award**, Florida Dietetic Association, 2006.

**2006-First Year Faculty-Recipient of Sponsored Project Funding, 2006**, University of North Florida, Jacksonville, Florida (2006)

**Margin of Excellence Research Award**, Division of Nutritional Sciences, University of Illinois at Urbana Champaign (2000, 2001, 2002, 2003, 2004)

**Travel Award** Division of Nutritional Sciences, University of Illinois at Urbana Champaign (2002, 2003, 2004)

**2001-American Physiological Association Travel Award** University of Illinois at Urbana Champaign, (2001)

**2001-Finalist, Young Investigator Award Competition**, at Experimental Biology Meeting, sponsored by the American Society of Clinical Nutrition (2001)

**2001-NIDDK Minority Award**, University of Illinois at Urbana Champaign (2001)

**Minority Fellowship Award**, Graduate College, University of Illinois at Urbana Champaign (1998-1999)

**1990-Academic Excellence Award**, University of Puerto Rico, Medical Sciences Campus (1990)

**Who's who in College**, University of Puerto Rico, Rio Piedras Campus (1984-1986)

**Dean's List**, University of Puerto Rico (1984-1986), (1987-1988)

**Academic Excellence in Dietetics, College of Education Academic Excellence Award and Merit Award**, University of Puerto Rico, Rio Piedras Campus (1986)

## LICENSES

National Registered Dietitian (R.D.N.): Lic. # 720201 (1990 to present)

Dietitian and Nutritionist License- Puerto Rican Board: Lic. # 891 (1988 to present)

State of Florida License Lic.# 8895 (2010-2017)

## GRANTS FUNDED

2017- Co-Investigator-USDA National Institute of Food and Agriculture Hispanic-Serving Institutions Education Grant, Proposal # 2017-03678. Curricula, Research and Technology: Capacity Building for Graduate Nutrition and Dietetics in Puerto Rico, \$250,000. Michelle Schelske-Santos PhD (PI) and Nancy Correa-Matos (Co-PI).

- 2017- Collaborator. Strengthening Undergraduate and Graduate Student Learning Through Improvement of Teaching Activities, RFA/USDA.  
Topic: Determination of dietary fiber and calories in Puerto Rican varieties of fruits and vegetables. Maria Plaza, PhD- UPRM and Nancy Correa-Matos (UPR-RP)
- 2015- Co-Investigator- USDA/SEED GRANT. Development of Culturally-Sensitive-Age-Appropriate Nutrition Education Materials For Childhood Obesity Prevention In Puerto Rico. María C. Rodríguez, PhD and Nancy Correa, PhD, RD, LND from University of Puerto Rico, Mayagüez Campus, College of Agricultural Sciences, Puerto Rico  
Agricultural Extension Services (\$150,000.00).
- 2014- Institutional Co- Investigator and Grant Collaborator- RFA/USDA- Improving the Health of Hispanic Children and their families with a Community-Based Curriculum Multi-Institutional Grant: “Abriendo Caminos” Teran Margarita et al., University of Illinois, Illinois.(\$448, 385.00)
- 2014- NIFA/USDA- Collaborator- Improving obesity prevention for families receiving government assistance (a supplemental nutrition assistance program-education (SNAP-Ed) and the expanded food and nutrition education program (EFNEP) to pool their resources and develop and evaluate innovative strategies to help people eligible for these government subsidies make healthy choices within a limited budget, University of North Carolina.
- 2010- Transformational Learning Grant: Improving cultural competency in nutrition education for Hispanics, \$6,428.00. **Correa-Matos N**, Rodriguez J. UNF Graduate School.
- 2010- UNF Nutrition Faculty Proposal for Manual of Medical Nutrition Therapy Editor and Co-editors. (2010-2012) \$8,000 per year. Florida Dietetic Association. Co-editors L. Wright, **N. Correa-Matos**, J. Rodriguez, J. Perkin, J. Shank and C. Sealey-Potts.
- 2009- Planning Jacksonville's Pediatric Hispanic Healthcare Initiative, \$11,700. Beverly L., **Correa-Matos N**, Stephenson P. CATCH Grant, Florida Department of Health.
- 2007- UNF Nutrition Faculty Proposal for Manual of Medical Nutrition Therapy Reviewer. Florida Dietetic Association, \$12,500. C. Christie, **NJ. Correa-Matos**, J Rodriguez, J Perkin, L Wright.
- 2008- UNF Nutrition Faculty Proposal for Manual of Medical Nutrition Therapy Reviewer. Florida Dietetic Association, \$12,500. C. Christie, **NJ. Correa-Matos**, J Rodriguez, J Perkin
- 2008- Increasing Awareness of the Hispanic Community in Northeast Florida, \$5920. (Mayo Clinic, Dr. Colon, P.I.; **N.J. Correa-Matos**, collaborator). ACS Community Education Grant Program to address Cancer Disparities.
- 2007- UNF Nutrition Faculty Proposal for Manual of Medical Nutrition Therapy Reviewer. Florida Dietetic Association, \$12,500. C. Christie, S. Weerts, **NJ. Correa-Matos**, J Rodriguez, J Perkin.

- 2007- UNF's HOPE: Media Campaign to Raise Obesity Awareness and Prevention, \$10,000 DCHD Rodriguez, J, **Correa-Matos, N J**.
- 2007- UNF's HOPE: Nutrition Education through a religious based setting. DCHD, \$7,559 USD. **Correa-Matos, NJ.**, Rodriguez, J.
- 2006- UNF Nutrition Faculty Proposal for Manual of Medical Nutrition Therapy Reviewer. Florida Dietetic Association, \$12,500. C. Christie, S. Weerts, **NJ. Correa-Matos, J** Rodriguez, J Perkin.
- 2005- UNF/VIM Initiative to Combat Metabolic Syndrome in Adults of Northeast Florida, \$6,000. Florida Dietetic Association. **NJ Correa-Matos**, C. Christie, J. Rodríguez.
- 2005- Transdisciplinary Partnership for Obesity Treatment at UNF, \$7,853. UNF Foundation Board. G. Ames, **NJ Correa-Matos**, C. Christie.

### **Unfunded Grants/IRB Approved**

- 2018- **Correa-Matos Nancy**. Innovations in diabetes education: The complete culturally-appropriate healthy eating guide for diabetic patients during disasters. Academy of Nutrition and Dietetics Foundation Diabetes Care and Education (DCE) DPG Karen Goldstein Memorial Grant for Diabetes MNT Application.(unfunded)
- 2017- **Correa-Matos N** and Schelske M. Project ABC: Assessment of Body Composition in adults working at UPR-Rio Piedras Campus for obesity and chronic diseases prevention. University of Puerto Rico (IRB approved #1718-075).
- 2016- Plaza-Delestre M and **Correa-Matos N**. Improving the Health of Hispanic Children and their Families with a Community-Based Curriculum. Abriendo Caminos: "Clearing the Path to Hispanic Health. University of Puerto Rico, Mayaguez Campus. IRB approved # 20160915).
- 2010- **Correa-Matos N.**, Rodriguez J, Santibanez D. Project IN: Integrating Nutrition Education into English lessons for Speaking-only Hispanics University of North Florida, Jacksonville, FL.
- 2009- **Correa-Matos N**, Chen-Li, S, De la Moneda Y. Engaging Students in family History and Nutrition Education for North east Hispanic community. University of North Florida, Jacksonville FL.

### **PEER-REVIEWED PUBLICATIONS**

#### *Publications in Journals and Books*

**Correa-Matos N**, Donovan SM, Tappenden KA. (2020) Fermentable fibers enhance aspects of innate and adaptive immunity in piglets infected with *Salmonella typhimurium*. (accepted for publication - PRHSJ # RE:2183).

**Correa-Matos N**, Rodríguez MC, Rodríguez-Pérez R. (2020): Development and Application of Interactive, Culturally Specific Strategies for the Consumption of High-fiber Foods in Puerto



Rican Adolescents, Ecology of Food and Nutrition, DOI:10.1080/03670244.2020.1763980.

Rodríguez MC, **Correa-Matos N**, Rodríguez-Pérez R (2019) Pilot Testing an Intervention to Promote Healthy Eating Among Puerto Rican Adolescents: Lessons Learned on Dietary Fiber Consumption. *J Health Educ Res Dev* 7: 306.

Amber J. Hammons AJ; Hannon BA, Teran-Garcia M, Barragan M; Villegas E, Wiley A, Fiese B, the Abriendo Caminos Research Team: Greder K, Plaza-Delestre M, **Correa Matos NJ**, Oliveras N. (2019) Effects of Culturally Tailored Nutrition Education on Dietary Quality of Hispanic Mothers: A Randomized Control Trial. *J Nutr Educ Behav*. 51:1168–1176.

Rodriguez R, **Correa-Matos N**, Rodriguez M. (2018) Barriers to Healthy Eating Among Early Adolescents in Puerto Rico: A Qualitative Study of Parent and Child Perceptions Regarding Eating Patterns. *Journal of Nutrition Education and Behavior*, JNEB-D-18-00074R1. 1-DEC-2018.DOI: 10.1016/j.jneb.2018.10.002.

Christie C, Watkins JA, **Correa-Matos N**, Braddock J. (2012) Nutrition counseling and a therapeutic lifestyle changes approach reduces diagnostic indicators of the metabolic syndrome in low-income US adults: pilot study. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews* cid: 273595

**Correa-Matos N**, Vaghefi S. (2012) Inflammation in Cardiovascular Diseases. In R. R. Watson, & V. R. Preedy (Eds.). *Bioactive Foods and Extracts*. Taylor and Francis Group, LLC, Boca Raton.

**Correa-Matos N**, Vaghefi S. (2012) Arthritis, Dairy Products and Inflammation. In R. R. Watson, & V. R. Preedy (Eds.). *Bioactive Foods and Extracts*. Taylor and Francis Group, LLC, Boca Raton.

Christie C, **Correa-Matos N**, Wright L, Watkins J, Bouziane A. (2010) The role of flavonoids in fruits and vegetables related to breast cancer prevention. In R. R. Watson, & V. R. Preedy (Eds.). *Bioactive Foods and Extracts: Cancer Treatment and Prevention*. Taylor and Francis Group, LLC, Boca Raton.

**Correa-Matos NJ**. Nutrition Education in Autism (2010) *Florida Manual of Medical Nutrition Therapy*. Florida Dietetic Association, Tallahassee, FL.

**Correa-Matos NJ**. Clear Liquid Diet (2010) *Florida Manual of Medical Nutrition Therapy*. Florida Dietetic Association, Tallahassee, FL.

Correa-Matos NJ. Short Bowel Syndrome (2008) *Florida Manual of Medical Nutrition Therapy*. Florida Dietetic Association, Tallahassee, FL.

Rodriguez JC, Beverly L, Correa-Matos N, Santibanez D. (2008) Development and Pilot Testing of a Low Literacy Handout from Hispanic/Latino caregivers to promote Breastfeeding and Introduce Age Appropriate Foods for Infants. *Florida Public Health Reviews* 5:93-95.

Rodriguez JC, Bolourchi-Vaghefi S, Christie C, Correa-Matos NJ, Santibanez D, Watkins J, Weerts S. (2007). *The Diet Selector*. Philadelphia, PA: Running Press.

Correa-Matos NJ, Co-Editor. (2007) Florida Manual of Medical Nutrition Therapy. Florida Dietetic Association, Tallahassee, FL.

Correa-Matos NJ, Stephen RM, Donovan SM, Gaskins HR, Tappenden KA. (2004) Fermentable fiber enhances the exclusion immune response in piglets infected with *Salmonella typhimurium*. *Gastroenterology* 126: A516.

Stephen RM, Correa-Matos NJ, Donovan SM, Chung BM, Tappenden KA. (2004) The effect of fermentable fibers on intestinal function and structure following *Salmonella typhimurium* infection. *Gastroenterology* 126:A517.

Milo LA, Correa-Matos NJ, Bartholome AL, Donovan SM, Isaacson RE, Tappenden KA. (2004) Supplementation of enteral formulas with fermentable substrates enhances migratory capability of intraepithelial lymphocytes and neutrophils during *Salmonella* infection in neonatal piglets. *J Pediatr Gastroenterol Nutr*, 39(1):73-9.

Correa-Matos NJ, Stephen R, Donovan SM, Tappenden KA.(2004)"Fermentable fiber enhances the exclusion immune response in piglets infected with *Salmonella typhimurium*. *Gastroenterology* 2004: A107352.

Correa-Matos N, Donovan SM, Isaacson R, Gaskins HR, White BA, Tappenden KA.(2003) Fermentable substrate reduces recovery time and improves intestinal function in piglets following *Salmonella* infection. *J Nutr*, 133:1845-52.

Presented in Experimental Biology Meeting at Orlando Florida (2001) as part of the Young Investigator Award Competition, sponsored by the American Society of Clinical Nutrition.

Gorski JM, Buetow KA, Correa-Matos N, Tappenden KA, Donovan SM. (2002) Impact of dietary long chain polyunsaturated fatty acids (LCPUFA) on intestinal structure and cytokine expression in a piglet model of enterocolitis. *Gastroenterology*, 122:A546.

Correa-Matos NJ, Donovan SM, Tappenden KA. (2002) Fermentable fiber does not alter intestinal development of neonatal piglets. Late breaking abstract, presented in EB 2002.

Correa-Matos N, Donovan SM, Isaacson R, Gaskins HR, White BA, Tappenden KA. (2001) Fermentable substrate reduces recovery time and improves intestinal function in piglets following *Salmonella* infection. *The FASEB J*, 15:A642.

Monaco M, Chen AC, Correa N, Gannesunker D, Gaskins HR, Lynch JK, Mc Carthy MC, Pelletier SE, Donovan S. (2000) Effect of oral insulin-like growth factor-I (IGF) during the suckling period on intestinal structure and immune cell composition during weaning in pigs. *The FASEB J*, 14: A506.

#### *Abstracts and Posters*

2019- Terán-García M, Hammons A, Greder K, Olvera N, **Correa-Matos N**, Plaza-Delestre M, Wiley A, Fiese BH, Abriendo Caminos: Opening Opportunities for Healthy Pathways. NP9.

2020 CV- Dr. Nancy Correa Matos

Society for Nutrition Education and Behavior Annual Conference Proceedings, Hyatt Regency, Orlando, Florida, July 2019.

2017- Rodríguez MC, Correa-Matos N, Rodríguez. (2017) Barriers to Healthy Eating and Physical Activity for the Development of Nutrition Materials for Puerto Rican Children. Society for Nutrition Education and Behavior's 50th Annual Conference, Washington, DC.

2010-Chen KS, Zhao M, **Correa-Matos NJ**, Xu L, Lu ML, Wang P. (2010) Qualitative Cultural Research: Lessons Learned from Chinese-American Immigrants Genomic Study, 2010 AAHPERD National Convention and Exposition, Beijing, China.

2010- Woodard JN, **Correa-Matos NJ**, Tappenden KA. (2010) The provision of the fermentable fibers soy polysaccharides and fructooligosaccharides increases short-chain fatty acid transporter abundance in healthy piglets. FASEB J. 24:102.1.

2009-Rodriguez JC, Santibanez D, Christie C, **Correa-Matos NJ**. (2009) Latino Food Glossary. Florida Dietetic Association Publishers, Tallahassee, Florida.

2008-Christie, C., Watkins, J. A., **Correa-Matos, N.**, Rodriguez, J. C., Weerts, S., & Braddock, J. Nutritional Counseling Reduces Diagnostic Indicators of the Metabolic Syndrome in Low Income US Adults. 15th International Congress of Dietetics, Yokohama Japan, September 8-11th, 2008.

2008- Weerts, S., Rodriguez, J., Christie, C., Watkins, J. A., **Correa-Matos, N.**, Nickelson, J & Shank, J.(2008) A Strategic Process for Advancing Research and Scholarly Competence in Undergraduate Dietetics Students Globally 15th International Congress of Dietetics, Yokohama Japan, September 8-11th, 2008.

## OTHER PUBLICATIONS – CREATIVE WORK

**Correa-Matos N.** Ayuno intermitente para el control de peso y enfermedades crónicas, Revista Equilibrium Vol 18. Num 1, Marzo, 2019.

**Correa-Matos N.** Tomando control de la sana alimentación: El Nuevo Día, marzo de 2019.

**Correa-Matos N.** El ayuno intermitente: riesgos y beneficios. El Nuevo Día, marzo de 2019

**Correa-Matos N.** Efecto de la poca actividad física en la alimentación: El Nuevo Día, abril de 2017.

**Correa-Matos N.** Aumenta la actividad física El Nuevo Día, abril de 2017.

**Correa-Matos N.** Comiendo Saludable en la parrilla. El Nuevo Dia, julio 2017.

**Correa Matos Nancy**, ¡No me hables de dietas! - Un enfoque holístico a la sana Alimentación- Revista SEA del Oeste, Vol. 5, págs., 10-14. Enero-mayo 2017.

**Correa-Matos, Nancy.** Recomendación de la AHA: No más de 6 cucharadita de azúcar al día a los niños y niñas. SEA del Oeste Vol. 5, págs. 25-27. Enero-mayo 2017.

**Correa-Matos, Nancy.** Mi mejor regalo de Navidad. Story book to combat childhood obesity. November, 2016. Publicado por Oficina de Medios e Información, Universidad de Puerto Rico, Rio Piedras.

**Correa Matos Nancy.** Modelo ecológico de la obesidad en el adolescente. Revista SEA del Oeste, Vol.4. Octubre-diciembre 2016.

**Correa-Matos Nancy.** Nutrición Cibernética al Alcance de Todos, *Equilibrium*, Vol. 1, marzo, 2015.

**Correa-Matos, Nancy.** El consumo excesivo de azúcares: pieza clave en el desarrollo de la obesidad, *Boletín Asociación Puertorriqueña de Ciencias de la familia y el Consumidor*, septiembre, 2015.

Beverly L, Solo-Josephson P, **Correa Matos N**, Lukens-Bull K, Fafard M. Healthcare Barriers Identified by Hispanic/Latino Families When Accessing Care for Their Children: A Community-Based Participatory Assessment. *Journal of the Poor and Underserved*, 2012.

Colaborator in: Rodriguez, J. The Diet Selector. NY: Running Press, Publ., 2007

**Correa-Matos NJ**, Christie C, Brown L, and Goodban J. (In preparation) Mommy, did you eat your vegetables today? Nutrition Education: From the children to the parents.

**Correa-Matos, NJ**, Christie C, Goodban J and Brown L. (In preparation) From the classroom to the community: Engaging undergraduate students in transformational community-based nutrition education to combat childhood obesity.

## **EXTENSION PUBLISHED CURRICULA**

**Correa-Matos, N** “Muévete a la Sana Alimentación” Guía Curricular para Niños y Jóvenes, University of Puerto Rico, Mayagüez y Río Piedras, Revisada, Publicada por Oficina de Medios e Información, Universidad de Puerto Rico, 2019.

**Correa, Matos, N.** “Festival de la Sana Alimentación 4H: Muévete a la Sana Alimentación” – Guía curricular del Facilitador, Publicada por Oficina de Medios e Información, Universidad de Puerto Rico, 2016.

**Correa-Matos, N** “Sana Alimentación en la Edad Dorada”- Guía Curricular del Adulto Mayor, Publicada por Oficina de Medios e Información, Universidad de Puerto Rico 2015.

**Correa-Matos, N** “Sana Alimentación: es mi decisión”- Guía Curricular Nutrición del Adolescente, Publicada por Oficina de Medios e Información, Universidad de Puerto Rico, 2014.

**Correa-Matos, N.** “Mejor Salud y Mas Nutrición con el Huerto Casero”- Guía Curricular Interdisciplinaria, University of Puerto Rico, Mayagüez, Publicada por Oficina de Medios e Información, Universidad de Puerto Rico, 2013.

**Correa-Matos, N.** “Muévete a la Sana Alimentación” Guía Curricular para Niños y Jóvenes del Programa 4H, University of Puerto Rico, Mayagüez, Publicada por Oficina de Medios e Información, Universidad de Puerto Rico, 2013.

**Correa-Matos, N.** “Yo Como Saludable”-Guía Curricular del niño en edad escolar- Programa Detención de Obesidad, University of Puerto Rico, Mayagüez, Publicada por Oficina de Medios e Información, Universidad de Puerto Rico, 2013,

**Correa-Matos, N.** “Tomando Control para la Sana Alimentación”- Guía Curricular para adultos- Programa Estilos de Vida Saludable, University of Puerto Rico, Mayagüez, Publicada por Oficina de Medios e Información, Universidad de Puerto Rico, 2012.

## **EXTENSION SEMINARS GIVEN**

**Correa, Matos, N.** Muévete a la Sana Alimentación: prevención de obesidad infantil. Servicio de Extensión Agrícola, Biblioteca Anexo de Biología, Jardín Botánico Río Piedras, noviembre 2018.

**Correa-Matos, N.** Sana Alimentación en la Edad Dorada: nutrición para el adulto mayor, Servicio de Extensión Agrícola, Biblioteca Anexo de Biología, Jardín Botánico Río Piedras, noviembre, 2017.

**Correa-Matos, N.** Sana Alimentación: es mi decisión: nutrición para el adolescente. Servicio de Extensión Agrícola, Biblioteca Anexo de Biología, Jardín Botánico Río Piedras, abril, 2016.

**Correa-Matos, N.** Mejor Salud y Mas Nutrición con el Huerto Casero. Servicio de Extensión  
2020 CV- Dr. Nancy Correa Matos

Agrícola, Biblioteca Anexo de Biología, Jardín Botánico Rio Piedras, marzo, 2015.

**Correa-Matos, N.** Yo Como Saludable: nutrición para el niño en edad escolar- Programa Detención de Obesidad. Servicio de Extensión Agrícola, Biblioteca Anexo de Biología, Jardín Botánico Rio Piedras, mayo, 2014.

**Correa-Matos, N.** Tomando Control para la Sana Alimentación: nutrición para adultos- Programa Estilos de Vida Saludable. Servicio de Extensión Agrícola, Biblioteca Anexo de Biología, Jardín Botánico Rio Piedras, abril, 2013.

## EXTENSION PUBLICATIONS

### Newsletters/ Brochures

**2017- Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto Universitario de Mayagüez**

Opúsculo: Valor nutricional legumbres

Opúsculo: Valor nutricional carnes

Opúsculo: Valor nutricional del plátano

Opúsculo: Comparación azúcares comunes

Opúsculo: Receta de arroz integral cocido

Folleto: Meriendas saludables para la familia

Folleto: Comparación nutricional entre los tipos de arroz

Folleto: Valor nutricional huevo crudo versus hervido

Manual: Pre y post pruebas para participantes del curso Tomando Control para la Sana Alimentación

**Carta periódica:** Comiendo Saludable en Navidad. Carta Periódica del Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto de Mayagüez, 2017.

**Carta periódica:** Hagamos un trato- Servir meriendas Saludables en el trabajo. Carta Periódica del Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto de Mayagüez, 2017.

**Carta periódica:** No me hables de dietas- enfoque holístico a la sana alimentación. Carta Periódica del Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto de Mayagüez, 2017.

**Carta periódica-** Prevención obesidad pediátrica: Enfoque en el adolescente.

**Carta periódica** - No más bebidas azucaradas para los niños.

**Carta circular-** Una Campaña Interdisciplinaria de Navidad: prevención de obesidad.

**Carta periódica** - *Mi Plato* en la Mesa familiar.

**Carta circular-**Día de la Sana Alimentación: consumiendo lo de aquí.

**Campaña Publicitaria:** Proyecto de Navidad- Detención Obesidad Pediátrica

**Publicación:** Mi mejor regalo de navidad para la web, El Nuevo Dia, diciembre 2017

**Publicación;** Correa-Matos N. Sana alimentación para el adulto mayor. Revista SEA del Oeste del Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto de Mayagüez, 2017.

**Publicación Revista:** Correa-Matos N. SEA del Oeste- Modelo ecológico de la obesidad en el adolescente, marzo 2017.

2016-Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto Universitario de Mayagüez

**Publicación Revista Buena Vida:** Metabolismo del alcohol durante ejercicio, diciembre 2016

**Carta periódica:** Actividad Física y Sana Alimentación es la Mejor Combinación: para la

prevención de obesidad. Carta Periódica del Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto de Mayagüez, 2016.

**Carta periódica:** Celebremos marzo, mes de la nutrición, atesorando el gusto por el buen comer.

**Carta periódica:** Contenido nutricional de las carnes para guisar.

**Carta periódica:** Sana alimentación es la solución, para la prevención de enfermedades crónicas.

**Folleto:** Sana alimentación en el trabajo

**Carta periódica:** Sana Alimentación: Resolución para el Año Nuevo 2016: Publicación de las Guías Alimentarias para los americanos 2015-2020.

**Carta periódica:** Sana Alimentación para el Adulto Mayor.

### **2015- Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto Universitario de Mayagüez**

**Folleto:** ¿Cómo prevenir la ganancia de peso en el adolescente universitario?

**Carta periódica:** Carnes sabrosas y nutritivas para todos en la familia. Carta Periódica del Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto de Mayagüez, 2015.

**Carta periódica:** Celebremos marzo, mes de la nutrición, saboreando un estilo de vida saludable.

**Carta periódica:** El consumo excesivo de productos azucarados: pieza clave en el desarrollo de la obesidad.

**Carta periódica:** Mensaje de la Organización Mundial de la Salud acerca del consumo excesivo de carnes rojas frescas y procesadas: posible riesgo de cáncer del colon.

### **2014- Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto Universitario de Mayagüez**

**Carta periódica:** La triste historia de Santa Claus...El personaje sufre de la epidemia del siglo 21, la obesidad. Carta Periódica del Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto de Mayagüez, 2014.

**Carta periódica:** Ayudemos a nuestros abuelos a vivir mejor con una sana alimentación.

**Carta periódica:** Disfrute el Sabor de Comer Bien.

**Carta periódica:** Nutrición cibernética: al alcance de todos.

**Carta periódica:** Una alimentación saludable para tu intestino puede prevenir la obesidad.

**Carta periódica:** Celebremos Marzo, el Mes de la Nutrición: “Disfrutando el Sabor de Comer Bien.

**Carta periódica:** Celebremos el Día Nacional de la Sana Alimentación: consumiendo “alimentos de verdad”: frescos, saludables, económicos y sostenibles (sustentables).

**Carta periódica:** Presentación de la Nueva Guía Alimentaria para Puerto Rico 2012 y “Mi Plato para un Puerto Rico Saludable.

### **2012-2013- Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto Universitario de Mayagüez**

**Carta periódica:** En Esta Navidad...¡detenga la Obesidad! Carta Periódica del Servicio de Extensión Agrícola, Universidad de Puerto Rico, Recinto de Mayagüez, 2013.

**Carta periódica:** Disfrute el Sabor de Comer Bien

**Carta Circular:** Día Nacional de la Sana Alimentación

**Carta periódica:** La Nueva Etiqueta Nutricional

**Opúsculo:** Seleccionando Carnes Sabrosas y Nutritivas.

**Folleto:** Tommy Tomate te invita a conocer los beneficios del tomate para tu salud.

**Carta periódica:** Controlando el tamaño de la porción para detener la obesidad en Navidad.

**Carta periódica:** Sugerencias para ayudar a sus niños a comer, saludablemente durante la época Navideña.

**Carta periódica:** No te dejes engañar...selecciona alimentos bajos en azúcares añadidas.

**Carta periódica:** La amarga realidad de las bebidas azucaradas.

**Carta periódica:** Quiero ser un preceptor: Guía para el preceptor de nutrición en la comunidad del programa de Ciencias de la Familia y el Consumidor del Servicio de Extensión Agrícola.

**Carta circular:** Día Nacional de la Sana Alimentación: sigue estas recomendaciones para promover la sana alimentación en tu comunidad

**Carta periódica:** Análisis nutricional y beneficios a la salud de los componentes del desayuno saludable

**Carta circular:** Celebremos el Día Mundial de la Sana Alimentación

**Afiche:** Los Nutrientes del Huerto

**Opúsculo:** Los Colores de la Nutrición

**Escrito digital:** Celebremos el Día Mundial de la Sana Alimentación en: [www.junteambiental.com](http://www.junteambiental.com)

**Web:** PR Food Day Report en: [www.fooday.com](http://www.fooday.com)

### RECENT INVITED PRESENTATIONS

2019- Cumbre de Inseguridad Alimentaria: Agenda de País. Museo de Arte de Puerto Rico, San Juan, Puerto Rico.

*Topic: Los alimentos del huerto y sus nutrientes están en mi Plato*

2019- Convención Anual del Colegio de Nutricionistas y Dietista de Puerto Rico, julio 31, San Juan, Puerto Rico.

*Topic: Ayuno intermitente: beneficios y riesgos metabólicos*

2019- Escuela de Medicina- División de Endocrinología. Recinto de Ciencias Médicas de la Universidad de Puerto Rico, Rio Piedras, junio 11.

*Topic: Alimentación saludable para el microbioma intestinal*

2019- The Caribbean Division of the American Association for the Advancement of Sciences (AAAS), Lote 23, Santurce, Puerto Rico. March 26

*Topic: Microbiome and Nutrition.*

2018- Nutrition Journal Club. Facultad Ciencias Naturales, Universidad de Puerto Rico, Rio Piedras (5 de diciembre 2018)

*Topic: El ayuno intermitente para el control de peso y enfermedades crónicas: Beneficios, Riesgos y Efectos Metabólicos.*

2017- Nutrition Journal Club. Facultad Ciencias Naturales, Universidad de Puerto Rico, Rio Piedras.

*Topic: Alimentación antes y después del ejercicio.*

2016- Actividad Mes de la Nutrición. Hospital Universitario de Rio Piedras, Rio Piedras, Puerto Rico. 15 de marzo de 2016.

*Topic: "Nutrigenoma: su rol en la terapia medico nutricional para la prevención y el tratamiento de enfermedades crónicas".*

2016 -Tercer Congreso de Mejoramiento Profesional de los Maestros de Ciencias de la Familia y el Consumidor, Departamento de Educación, Región de Bayamón y Secretaría de Educación Ocupacional, Centro Convenciones, San Juan Puerto Rico.

*Topic: Nutrición del Adolescente*

2016- Conferencia Cumbre de Educación en Nutrición, Agencia Estatal de Servicios de Alimentos y Nutrición del Departamento de Educación, Hotel Intercontinental, San Juan, Puerto Rico.



- Topic: Nutrición en el Huerto*
- 2016- Actividad Cumbre Mes de la Nutrición, Hospital Universitario de Río Piedras, Río Piedras, Puerto Rico  
*Topic: Nutrigenoma: Su rol en la Terapia Médico Nutricional para la prevención y tratamiento de las enfermedades crónicas.*
- 2015- Cumbre de las Américas del Colegio de Nutricionistas y Dietista de Puerto Rico, Agosto, San Juan, Puerto Rico.  
*Topic: Microbioma Intestinal y su Rol en la Obesidad*
- 2015- Graduate School of Public Health Seminar, Medical Sciences Campus, Río Piedras  
*Topic: El rol de la nutricionista en la comunidad*
- 2014- Weight Management Course, Medical Sciences Campus  
*Topic: Microbioma Intestinal y su Rol en la Obesidad*
- 2014- University of Puerto Rico, Río Piedras Campus, Río Piedras  
*Topic: El rol de la nutricionista en las ciencias e investigación*

## PROFESSIONAL LEADERSHIP ROLES

### National Level:

Academy of Nutrition and Dietetics, **Chair**, Professional Development Committee , LAHIDAN, 2020

Academy of Nutrition and Dietetics, **Mentor**, Mentorship Program, LAHIDAN, 2014 to 2019

Academy of Nutrition and Dietetics, Internship **Preceptor**, 2012 to present

Academy of Nutrition and Dietetics, Nutrition Education Practice Group, **Member**, 2014 to present.

Academy of Nutrition and Dietetics, Nutrition Support Practice Group, **Member**, 2014 to present.

National Institute of Food and Agriculture, **Contact Person** (2012-to present)

American Dietetic Association- **Chair- Nominating Committee**  
 LAHIDAN – Latinos/Hispanics in Dietetics and Nutrition (2009-2010)

American Dietetic Association- **Co-Chair -Nominating Committee** LAHIDAN – Latinos/Hispanics in Dietetics and Nutrition (2008-2009), **Mentor** 2016-to present)

American Society of Parenteral and Enteral Nutrition- **Task Force Selected Committee** 2009-2010.

### Local Level:

**Member**, Strategic Planning Committee, Colegio de Nutricionistas y Dietistas de Puerto Rico, 2020

**Member**, Ad-hoc Committee, Comisión de Alimentación y Nutrición, “Campaña en redes y medios de comunicación digital para la concienciación del problema de obesidad de Puerto Rico”, 2020

**Member**, External Advisory Committee for ACEND, Department of Health Dietetic Internship, 2020

**Chair**, Continuing Education Committee- Academy of Nutrition and Dietetics Puerto Rico Chapter. June 2019- to present

**Member**, Interview Committee. Programa de Internado del Recinto de Ciencias Médicas, Universidad de Puerto Rico. 2016-2018.

Comité de Conferencia Lydia J Roberts, member, 2016-2018.

Colegio de Nutricionistas y Dietistas de Puerto Rico- Junta Directiva-Vocal-Sector Universitario, 2016-2017.

Puerto Rico Education Council- SNAC-Food and Nutrition Services, USDA, member. 2015- 2017.

Puerto Rico Obesity Coalition member, 2015-2017

Comisión de Alimentación y Nutrición de Puerto Rico- Comité Timón para la Prevención de Obesidad, member, 2015-2017.

Comisión de Alimentación y Nutrición de Puerto Rico- Guías Alimentarias Committee member, 2015 –2017.

Colegio de Nutricionistas y Dietistas de Puerto Rico- Revista Equilibrium Committee, 2014-2016.

Dietetic Interns Interview Committee, Medical Sciences Campus, 2015-2016.

Department of Health Dietetic Internship Accreditation Advisory Committee, 2015-2016.

Colegio de Nutricionistas y Dietistas de Puerto Rico- Educational Materials Preparation Committee, 2014-2015.

Academy of Nutrition and Dietetics, PR chapter, Registration Committee, 2015-16

Panamerican Conference on Obesity (PACO), Task Force Committee, 2013

Coalición de Cáncer de Puerto Rico, Nutrition Committee, 2013

Comisión de Alimentación y Nutrición de Puerto Rico- *Comité Canasta Básica*, Board Member, 2012-2015

Alianza Prevención de Obesidad Pediátrica, Public Policy Committee Member 2012-to present

Consejo Renal de Nutrición de Mayagüez, Board Member, 2012-2013

Dietetic Internship Preceptor and Coordinator of Community Nutrition Program, Medical Sciences Campus, 2012-to present

Dietetic Internship Preceptor and Coordinator of Community Nutrition Program, Medical Sciences Campus, 2012to present

Cancer Coalition of Puerto Rico, Nutrition Committee Member, 2013

Merit Review Committee Member 2012-2013

Jacksonville Dietetic Association Board-PRESIDENT-2012

Jacksonville Dietetic Association Board-Membership Committee 2008-2011

Jacksonville Dietetic Association Board-Membership Committee 2008-2011

Duval County Department of Health- Health and Nutrition Board 2007-2009

Hispanic Council Co-CHAIR, University of North Florida, 2008-2011

Food Advisory Council- CHAIR, University of North Florida -2007-2008

Food Advisory Council- Co-CHAIR, University of North Florida -2006-2007

Hispanic Council- Secretary, University of North Florida 2006-2007

Search Committee- Director of Development, University of North Florida - 2006 and 2007

CDRC- Child Development Research Center Board Member, University of North Florida 2007-2011

Board of Recruitment and Retention Task Force, University of North Florida (2006)

#### **College Committees:**

Advisory Committee, Programa de Ayuda al Empleado, University of Puerto Rico, Rio Piedras, 2019

Technology Committee, University of Puerto Rico, Rio Piedras, January 2017

Rules and Regulations Committee, University of Puerto Rico, Mayagüez, 2013-2017

Faculty Development Committee, University of North Florida 2006-2009

Scholarship Committee, University of North Florida 2010-11

PhD Committee, University of North Florida 2010-11

**Search Committee:**

Director of Development, 2007  
Department of Public Health (4 positions), 2006  
Department of Athletic Training (2 positions), 2007  
Department of Physical Therapy (2 positions), 2007

**Department' Program Committees:**

Curriculum Committee, Nutrition Program, University of Puerto Rico, Rio Piedras, January 2017-present  
Accreditation Committee, Nutrition Programs, University of Puerto Rico, 2018-2019.  
Library Liaison, College of Natural Sciences, University of Puerto Rico, Rio Piedras, 2017-2019  
Promotion and Development Committee, University of Puerto Rico, Mayagüez, 2013-2017  
External Funds Committee, University of Puerto Rico, Mayagüez, 2013-2017  
Community-Based Transformational Learning Committee, University of North Florida 2011  
Bookstore Liaison, University of North Florida 2010-11  
Internship selection committee, University of North Florida 2011  
Nutrition Search Committee, University of North Florida 2006, 2008, 2009, 2010, 2011  
Internship Selection Committee, University of North Florida 2009, 2010  
Coordinator of course HUN 2201, University of North Florida 2008- to present  
National Nutrition Month Activities, University of North Florida 2009, 2010, 2011  
    Coordinate the art and nutrition display during National Nutrition Month in the College of Health as an effort to combat childhood obesity  
    Coordinate visitation of Nutrition Students to elementary schools

**Community Service:**

*Service to the Profession:*

2019- Nutrition and supporting sciences, screening and assessment. RDN exam review seminar. University of Puerto Rio, Rio Piedras, May 2019.  
2018- Nutrition and supporting sciences, screening and assessment. RDN exam review seminar. University of Puerto Rio, Rio Piedras, April 2018.  
2018- Correa-Matos N. Nutrition Counseling and Communication. RDN Review Seminar, Veterans Administration Health System. San Juan, Puerto Rico, Dec 2018  
2017- Enteral and Parenteral Nutrition. RDN Week- Review Exam for Dietetic Interns. Medical Sciences Campus, Rio Piedras, May 2017.

*Public Presentations:*

2018- Alimentación saludable durante desastres. Iglesia Católica San Luis Gonzaga, Rio Piedras, 19 de junio de 2018.  
2017- Eating healthy after Maria Hurricane. College of Natural Sciences, University of Puerto Rico, Rio Piedras. October, 2017.  
2016- Healthy eating on a budget- Personnel of the Jardin Botanico Rio Piedras, Puerto Rico, abril 2016.

*Newspaper writings:*

“ Riesgos y beneficios del ayuno intermitente, El Nuevo Día, marzo 2019  
“ Tomando Control de la Sana Alimentación, El Nuevo Día, marzo 2019  
“Seguridad a la Parrilla”, El Nuevo Día, 2018

“Aumenta la actividad física diaria”, El Nuevo Día, junio 2017  
 “Efecto de la poca actividad física en la alimentación”, El Nuevo Día, junio 2017  
 “Por qué se gana peso en la Navidad”, El Nuevo Día, diciembre, 2016  
 “El alcohol y la nutrición- Revista Buena Vida, December 2016  
 “Prevención de obesidad Pediátrica: Mi mejor regalo de Navidad”, El Nuevo Día, November 2016  
 “Guías Alimentarias 2016, El Nuevo Día, Puerto Rico, 2016  
 “Santa fit” – interviewed for Revista Buena Vida, 2015  
 “Ni una Libra de Más en La Navidad”, El Nuevo Día, Puerto Rico, 2012  
 “Meriendas saludables para niños en la Navidad”, Noticel, Puerto Rico, 2012  
 “Los peligros del uso excesivo del azúcar, El Nuevo Día, Puerto Rico, 2012  
 The Times Union, Florida, 2010-11  
 Spinnaker Newspaper- Florida, (2006, 2007 and 2008)  
 LA PLAZA Newspaper, Florida, -2007-2008  
 HOLA NEWS- Florida, 2006-2007  
 Radio Shows (topics):  
 “Día Mundial de la Alimentación”, Radio Isla 1320, Puerto Rico, 2013  
 “Nutrición del Adulto Mayor”, Radio Universidad, Puerto Rico 2013  
 “Mi Plato para Puerto Rico” Radio Universidad, Puerto Rico 2013  
 “Efectos del alcohol en la nutrición del adulto”, Bonita Radio on-line, Puerto Rico 2012  
 “Ni una Libra de Mas en La Navidad”, El Nuevo Día, Puerto Rico 2012

Career Day Participation on Private Schools, Puerto Rico 2013

### **SOCIETIES**

Extension Specialists Association (2012-to present)  
 American Society of Family and Consumer Sciences (2014 to present)  
 American Society of Enteral and Parenteral Nutrition (2007 to 2012)  
 American Society of Clinical Nutrition (2001 to 2016)  
 American Society of Nutritional Sciences (2003 to present)  
 American Dietetic Association (1990 to 2011)  
 Academy of Nutrition and Dietetics (2011 to present)  
 American Dietetic Association Practice Group Dietetic Educators of Practitioners (2006-present)  
 American Dietetic Association Practice Group Nutrition Support Line (2006-present)  
 Nutritional Sciences Graduate Student Association- University of Illinois at Urbana Champaign (1999 to 2005).  
 Florida Dietetic Association (2005- 2012)  
 Jacksonville Dietetic Association (2005 to 2012)  
 American Dietetic Association- Puerto Rico Chapter (1989 to present)  
 Puerto Rican Association of Dietitians and Nutritionists (1989 to present)

### **LANGUAGES/OTHER INFORMATION**

Strong reading, writing and speaking skills in Spanish and English  
 United States Citizen/ Puerto Rican

### **REFERENCES**

Available upon request

**Lizette Vicéns Meliá, EdD, RDN, LND**

Email address [lizette.vicens1@upr.edu](mailto:lizette.vicens1@upr.edu)

Telephone Number: 787-764-0000 Ext. 88589

**EDUCATION**

**Columbia University**, New York, NY 1986

EdD Nutrition Education

Dissertation: Doña Elena, Twenty-Seven Years Later

**Columbia University**, New York, NY 1985

MEd Community Nutrition Education

**University of Puerto Rico - Medical Sciences Campus**, PR 1979

MS Nutrition in Public Health

Thesis Title: Factores que determinan el consumo de "alimentos de salud" por los residentes del área metropolitana de San Juan, PR 1978

**University of Puerto Rico - Río Piedras Campus**, PR 1976

Nutrition and Dietetics Concentration

**Immaculata College**, Immaculata, PA 1974

B.S. Home Economics Education, N-12

**ADDITIONAL TRAINING**

Certified ServSafe Instructor & Registered ServSafe Examination Proctor January 2018

Nutritional Epidemiology - UPRRP - DECEP 12 hrs Marzo 2014

Certification Distance Education Instructor OREI - DTAA Universidad de Puerto Rico - Río Piedras Campus 36 hrs. August - May 2010

Certificate on Construction of Virtual Environments Group 1 June, 2018

Certificate of Training in Adult Weight Management 2002

Workshop on Hazard Analysis Critical Control Points - Food Processors Institute 1998

Diabetes Educator, Puerto Rico Diabetes Educators Association 1996

## LANGUAGES

Spanish and English - read, write, and speak fluently

## COMPUTER SKILLS

Apple applications (Keynote, Pages), Microsoft Applications (Word, excel, Power Point)

## AWARDS

Distinguished Educator of the Year, Academy of Nutrition and Dietetics, PR Affiliate, 2009

## GRANT WRITING EXPERIENCE AND RESEARCH SUPPORT

**Title:** *Nutrition Live at UPR-RP; Distance Education within the Nutrition Curriculum*

**Support:** US Department of Agriculture: NIFA

**Project goals:** The target objectives include to provide a broader educational experience to enrolled students, improve teaching, support the evidence on the use of alternate teaching methods taking into account the different lifestyles, learning styles, increase need of availability for enrollment in courses (i.e., course offerings), potentially reduce the time to complete program and decrease economic burden (i.e., room and board) for students who live in remote areas of the island.

**Role:** Key Personnel

**Funding Approved:** \$62,000

**Duration:** Three years, 2011-2014

**Title:** *Improved facilities for food and science laboratories at University of Puerto Rico*

**Support:** US Department of Agriculture, HHS

**Project goals:** This project will provide state-of-the-art laboratory equipment and updated laboratory curriculum for the Program. Over the expected 10 year life span of the equipment, the project will impact at least 550 students enrolled in Food Science, Institutional Menu, Applied Human Nutrition, Food Planning, Food Preparation and Service for Diverse Cultures, Quantity Food Production, Layout, Design and Equipment Purchasing for Foodservice Systems and Food Purchasing for Institutions courses. Through these courses and extracurricular experiences with state-of-the-art equipment, students will be better trained for professional careers in nutrition and dietetics and in areas of interest to the USDA.

**Role:** Co-director

**Funding Approved:** \$289,000

**Duration:** three-years, 2011-2014 plus one-year no-cost extension

**Title:** *Childhood Obesity: Colores y Movimiento para un Puerto Rico Sano:* Adolescent Behavior Change Through Social Media and Face to Face School-Based Nutrition Interventions

**Support:** US Department of Agriculture, NIFA

**Project Goals:** to provide and evaluate the impact of innovative interventions founded on Social Cognitive Theory (SCT) to achieve behavior modification among adolescents between 15 to 19 years of age that will address the **USDA Challenge Area Childhood Obesity Prevention**, within one of the six **Program Priority Areas, food safety, nutrition and health.**

**Funding Approved:** No

**Title:** Pilot Project within COBRE proposal entitled Center for the Study of Genome-Environment Interactions (CSGEI), collaboration with Dr. José García Arrarás, Biology Department.

**Support:** National Institute of Health

**Project Goals:** to describe and contrast the ability to regulate food intake by measuring self-reported appetite and satiety responsiveness and dietary intake of obese children 5-8 years old to non-obese children matched by age and demographic characteristics.

**Funding Approved:** No

## **RESEARCH EXPERIENCE**

**Title:** Trayectoria del Perfil de Salud de los estudiantes de Nuevo Ingreso del UPRRP 2015.

**Role:** Co-investigator

**Support:** Fondos Institucionales para la Investigación (FIPI), UPRRP

**Funding Approved:** \$34,840.00

**Duration:** 2014 - 2017

**Doctoral Dissertation:** 1986

**Role:** Principal investigator

**Study Objective:** To describe the dietary practice of the Doña Elena community in Comerío, PR twenty seven years after the initial evaluation done by Dr. Lydia J. Roberts at the UPR - Río Piedras Campus together with Isolated Communities Division of the Government of PR.

**Masters Thesis:** 1978

**Title:** Factores que determinan el consumo de "alimentos de salud" por los residentes del área metropolitana de San Juan, PR ,1978

**Role:** Principal Investigator



## **WORK EXPERIENCE**

2013-2019	Faculty Academic Senator for the College of Natural Sciences, Three year designation, presently on a second term.
2011-2012	Associate Dean of Academic Affairs, College of Natural Sciences, UPR- Río Piedras Campus, San Juan, PR
2008- 2011	Nutrition and Dietetics Program Director College of Education UPR - Río Piedras Campus Then under the College of Natural Sciences UPR - Río Piedras Campus San Juan. PR
2009 - Present	Full Professor, Nutrition and Dietetics Program, College of Natural Sciences UPR - Río Piedras Campus San Juan. PR
2004 - 2009	Assistant Professor, Nutrition and Dietetics Program, College of Natural Sciences UPR - Río Piedras Campus San Juan. PR
1986 - Present	NUTRICORP, INC. San Juan, PR Pres/Co-owner Food & Nutrition Consulting Services
1983	Instructor, Human Nutrition ECDO 4042 School Of Home Economics UPR - Río Piedras Campus, San Juan, PR
1981- Present	Private Practice in Nutrition, San Juan, PR
1976	Full-time Instructor - Home Economics Program Universidad Católica de PR, Ponce, PR
1974	Home Economist, Agricultural Extension Services Student Experience as part of a January Interim Program from Immaculata College. Volunteer services, Ponce, PR

## **PROFESSIONAL CREDENTIALS**

1976 - present Licensed in Nutrition and Dietetics (LND),  
Colegio de Nutricionistas y Dietistas de Puerto Rico. Lic. #527

2004 - Present Registered Dietitian Nutritionist (RDN), Academy  
of Nutrition and Dietetics, Commission on Dietetics Registration.

## PROFESSIONAL ACTIVITIES

2018 Comisión de Alimentos y Nutrición de Puerto Rico,  
representing the University of Puerto Rico's President, Dr.  
Harrell Hillman

2015, 2014, 2013 Annual Meeting Coordinating Committee Member,  
Academy of Nutrition and Dietetics, Puerto Rico Affiliate

2014 - Present President, Nutrition and Dietetics Program  
Personnel Committee

2012-2013                      Puerto Rico Council of Higher Education -  
Member of Consultee Board for the Evaluation  
Of a Masters in International Nutrition and  
Dietetics application by the Universidad  
Internacional Iberoamericana

2012- 2013 Member, Interviewing Committee for the UPR - Medical  
Sciences Campus Dietetics Internship Program Candidates.

2000-2001 President, Academy of Nutrition and Dietetics, Puerto  
Rico Affiliate

1990 - 1991 Member of Board of Examiners for NUTRITIONISTS and  
Dietitians of Puerto Rico, governor's appointment.

## PUBLICATIONS

Pinto, E., Toro, B., **Vicéns, L.** (2014). Nutrition and physical  
activity interventions for childhood obesity; Lessons  
learned. *Ecology of Food and Nutrition*.

Toro, B; Cruz, A. & **Vicéns, L.** (2011). Comparación del valor  
Nutricional de menús para Adultos 19-50 Años en  
establecimientos de Comida Rápida y casual/familiar con  
la Ingestas Dietarias de referencia, *Avances de Nutrición*  
- *Asociación Dietética Americana Capitulo de PR.*

Toro, B; Cruz, A. & **Vicéns, L.** (2010). Comparación del Valor  
Nutricional de menús para Adolescentes 14-18 Años en  
establecimientos de Comida Rápida y casual/familiar con la  
Ingestas Dietarias de referencia, *Avances de Nutrición* -  
*Asociación Dietética Americana Capitulo de PR.*

Toro, B; Cruz, A. & **Vicéns, L.** (2009). Comparación del Valor Nutricional de Menús para Niños de 4-8 años en establecimientos de comida rápida y casual/familiar con la Ingestas Dietarias Recomendadas, *Avances de Nutrición - Asociación Dietética Americana Capítulo de PR.*

**Vicéns, L.** El Nuevo Modelo y Proceso de Cuidado Nutricional. (2008) *Equilibrium*, Colegio de Nutricionistas y Dietistas de PR. 5(1)

#### **PEER-REVIEWED PRESENTATIONS**

**2014** Nutrición y Dietética: Otro Horizonte ante Nuevos Caminos, Annual Meeting College of Nutritionists and Dietitians of Puerto Rico, August, 2014

**2012** Expediente Electrónico... Documenta tus servicios usando el Proceso de Cuidado Nutricional (PCN) Academy of Nutrition and Dietetics Annual Meeting, Puerto Rico Affiliate, March 2012

**2011** Nuevas Brechas para Viejos Caminos del Programa de Nutrición y Dietética UPRRP - Academy of Nutrition and Dietetics Annual Meeting, Puerto Rico Affiliate, San Juan, PR March 2011

**2010** Guest Speaker "Nutrition Care Process", - Academy of Nutrition and Dietetics Annual Meeting, Puerto Rico Affiliate Isla Verde, PR. March 2010

**2009** Guest Speaker, "The Nutrition Diagnosis", - Academy of Nutrition and Dietetics Annual Meeting, Puerto Rico Affiliate, Isla Verde, San Juan, PR March 2009

**UNIVERSITY OF PUERTO RICO  
MEDICAL SCIENCES CAMPUS**

**SCHOOL OF PROFESSIONS**

**DEPARTMENT OF GRADUATE PROGRAMS  
DIETETIC INTERNSHIP  
CURRICULUM VITAE**

<b>NAME:</b> ALICIA Z. DÍAZ BOULON, EDD, RDN, CDE, LND	
<b>OFFICE ADDRESS:</b> PO Box 365067, San Juan, PR 00926-5067	<b>HOME ADDRESS:</b> 785 Calle Rubí La Alameda San Juan, PR 00926
<b>EMAIL (UPR):</b> alicia.diaz1@upr.edu	<b>TELEPHONE (home):</b> n/a
<b>EMAIL (other):</b> aliciazdiaz@gmail.com	<b>TELEPHONE (office and cell phone):</b> 787-758-2525 ext. 4503/4504 787-422-0200

**EDUCATION AND DEGREES** (Chronological order)

COLLEGE OR UNIVERSITY	DEGREE	YEAR OF GRADUATION
1. University of Puerto Rico, Río Piedras Campus	Bachelor of Sciences in Nutrition and Dietetics	1998
2. University of Puerto Rico, Medical Sciences Campus, School of Public Health	Master of Health Science-Nutrition	2005
3. Inter American University of Puerto Rico, Metropolitan Campus	Doctor of Education, Specialty: Higher Education	2018

GRADUATE TRAINING (NAME OF INSTITUTION)	DEGREE	SPECIALTY	YEAR OF GRADUATION
1. N/A			

**INTERNSHIP - IF APPLIES** (Institutions and dates)

INSTITUTION	DATE
1. Dietetic Internship, Veterans Administration Medical Center, San Juan PR	1999-2000

**RESIDENCY, FELLOWSHIP OR OTHER POSTGRADUATES TRAINING - IF APPLIES**

(Institutions and dates)

TYPE OF TRAINING	INSTITUTION	DATE	AREA OF STUDY
1. Certified Lactation Educator	University of Puerto Rico, School of Public Health	2000	Lactation
2. Certificate of Training in Adult Weight Management	Academy of Nutrition and Dietetics	2001 and 2012	Adult Weight management
3. Diabetes Educator in Puerto Rico	Colegio de Nutricionistas y Dietistas de Puerto Rico	2006	Diabetes
4. Certificate of Training in Renal Patients	Colegio de Nutricionistas y Dietistas de Puerto Rico	2008	Renal
5. Certificate of Training in Weight Management	Colegio de Nutricionistas y Dietistas de Puerto Rico	2008 and 2013	Adult and pediatric weight management
7. Certificate of Training in Adult Weight Management Level 2	Academy of Nutrition and Dietetics	2014	Adult Weight management

**MENTION SPECIALTY OR SUBSPECIALTY IN YOUR PROFESSION**

(If more than one, add them to list)

1. SPECIALTY: Diabetes and weight management
2. SUBSPECIALTY: n/a

**LICENSES TO PRACTICE PROFESSION - IF APPLIES** (Places, dates and number)

NAME OF INSTITUTION CONFERRING LICENSE/COUNTRY	LICENSE NUMBER	DATE
1. Commission on Dietetic Registration, Academy of Nutrition and Dietetics. <b>Registered Dietitian Nutritionist</b> (RDN)	867067	2000 -present
2. Colegio de Nutricionistas y Dietistas de Puerto Rico, <i>Licensed in Nutrition and Dietetics</i> (LND) Puerto Rico License	1239	2000 -present

**PROFESSIONAL BOARD CERTIFICATION BY SPECIALTY AND SUBSPECIALTY - IF APPLIES**  
(Include dates)

BOARD	DATE	EXPIRATION DATE
1. National Certification Board for Diabetes Educators	September 15, 2016	December 31, 2021
2. Certified in Weight Management, Colegio de Nutricionistas y Dietistas de Puerto Rico	April 2018	April 2021

**HOSPITAL AFFILIATION - IF APPLIES** (Nature and dates)

HOSPITAL	DATES
1. Hospital Universitario de Adultos, supervision/teaching of dietetic interns clinical practicum.	2008-present

**PROFESSIONAL EXPERIENCE**

EMPLOYER	POSITION HELD	DATES
1. Hospital Auxilio Mutuo	Clinical Dietitian	2001-2008
2. University of Puerto Rico, Medical Sciences Campus, School of Health Professions, Dietetic Internship Program	Instructor	August 2008 –June 2014
3. University of Puerto Rico, Medical Sciences Campus, School of Health Professions, Dietetic Internship Program	Assistant Professor	July 2014-present
4. University of Puerto Rico, Medical Sciences Campus, School of Health Professions, Dietetic Internship Program	Acting Director	July 2014 –April 2018
5. University of Puerto Rico, Medical Sciences Campus, School of Health Professions, Dietetic Internship Program	Program Director	May 2018 - present

**ACADEMIC APPOINTMENTS** (Include all appointments ever held)

RANKS	INSTITUTION	DATES
1. Instructor	University of Puerto Rico, Medical Sciences Campus, School of Health Professions, Dietetic Internship Program	August 2008 –June 2014
2. Assistant Professor	University of Puerto Rico, Medical Sciences Campus	July 2014-present

**OTHERS APPOINTMENTS** (Administrative, Consultative, Others)

TITLE	DATE
1. Healthy Kids grant reviewer. Appointed by the Academy of Nutrition and Dietetics Foundation	March 2015
2. Member of the Cafeteria Committee of the MSC, UPR	May 2017-present
3. <i>Comisión de Alimentación y Nutrición de Puerto Rico</i> , Official Representative of the University of Puerto Rico President, Dr. Jorge Haddock	October 1, 2018-present
4. Puerto Rico Board of Nutritionist and Dietitians, appointed as Advisory Committee Board Member	October 2, 2018 - present

**HONORS AND AWARDS** (Include dates)

HONORS / AWARDS	DATES
1. Innovative Dietitian Award, Colegio de Nutricionistas y Dietistas de Puerto Rico	August 2002
2. Young Dietitian of the Year, Academy of Nutrition and Dietetics, Puerto Rico Affiliate	March 2009
3. Outstanding Educator of the Year, Academy of Nutrition and Dietetics, Puerto Rico Affiliate	March 2012
4. United by Health and Nutrition Award, Colegio de Nutricionistas y Dietistas de Puerto Rico	August 2013
5. Innovative Educator of the Year, Colegio de Nutricionistas y Dietistas de Puerto Rico	September 2020

**MEMBERSHIP IN PROFESSIONAL OR SCIENTIFIC SOCIETIES**

(Include leadership appointments or positions held)

MEMBERSHIP	LEADERSHIP / POSITION HELD	DATES
1. Academy of Nutrition and Dietetics (AND), Puerto Rico Affiliate	Member	1998-present
2. Colegio de Nutricionistas y Dietistas de Puerto Rico	Member	2000 - present

MEMBERSHIP	LEADERSHIP / POSITION HELD	DATES
3. Academy of Nutrition and Dietetic, Puerto Rico Affiliate	Scholarship and Awards Committee Chair	2006-2008
4. Academy of Nutrition and Dietetic, Puerto Rico Affiliate	Newsletter Editor	2008-2010
5. American Association of Diabetes Educators	Member	2008-2009
6. Puerto Rico Association fo Diabetes Educators in Action (APREnDA)	Member	2008-2009
7. Colegio de Nutricionistas y Dietistas de Puerto Rico	Commission of Continued Education for Weight Management Certification	2012-2013
8. Academy of Nutrition and Dietetic, Puerto Rico Affiliate	Commission of Continued Education Chair	2013-2014
9. Academy of Nutrition and Dietetic, Puerto Rico Affiliate	Nominations Committee Chair	2015
10. Academy of Nutrition and Dietetics	President Elect 2018, President -June 2019-2020	2018 - 2020
11. AND Professional Interest Group: Weight Management	Member	2011-present
12. AND Professional Interest Group: Nutrition Entrepreneurs	Member	2017-present
13. AND Education Practice Groups: Nutrition and Dietetic Educators and Preceptors (NDEP)	Member	2013-present
14. AND Member Interest Group: Latinos and Hispanics in Dietetics and Nutrition (LAHIDAN)	Member	2013-present

## TEACHING EXPERIENCES

TEACHING EXPERIENCES	SUPERVISOR POSITIONS HELD	CATEGORY (undergraduate, graduate, clinical, others)	DATES
1. Clinical Instruction/Medicine Rotation	Instructor/Assistant Professor (2014)	Graduate	2009-present
2. Clinical Instruction/Introduction to Clinical Dietetics, Surgery, Community and Ob-Gyn Rotations	Instructor	Graduate	2008-2014
3. Basic principles of nutrition course	Instructor	Undergraduate	2011
4. Food Service Purchasing	Instructor	Undergraduate	2013



course			
--------	--	--	--

**RESEARCH EXPERIENCES** (Describe and include the title and year of investigation conducted)

RESEARCH EXPERIENCES (title)	SUBSIDIED (by whom)	DATES	PUBLISHED
1. Associated Factors for Diabetes Self-Management in Puerto Rican Adults with Diabetes Mellitus Type 2: A Pilot Study	UPR-Administración Central, Capacity Advancement in Research Infrastructure, UPR-MFP 6251123.	March 2016	

**POSTGRADUATE OR GRADUATE COURSES, SEMINARS AND WORKSHOPS ATTENDED IN THE LAST FIVE YEARS** (Title, place and dates)

TITLE	PLACE	DATE
Congreso Anual Academia de Nutrición y Dietética Capítulo de Puerto Rico	Centro de Convenciones, San Juan, PR	March 12-14, 2014
3er Simposio Anual Título V, Toma de decisiones basadas en la evidencia	UPR, MSC, San Juan, PR	May 8-9, 2014
Convención Anual Colegio de Nutricionistas y Dietistas de Puerto Rico	Condado Plaza Hilton, San Juan, PR	July 30, 2014
1st Puerto Rico Cancer Research Meeting	Verdanza Hotel, Isla Verde, PR	October 3, 2014
Academia de Gerencia y Supervisión	UPR, MSC, San Juan, PR	December 11, 2014
Actividad Cumbre del Mes de la Nutriciónw	Hotel Marriott Courtyard, Isla Verde, PR	March 6, 2015
Congreso Anual Academia de Nutrición y Dietética Capítulo de Puerto Rico	Hotel La Concha, San Juan, PR	March 11, 2015
Plan de acción para la prevención de la obesidad en la niñez y en la adolescencia de la Organización Panamericana de la Salud	UPR, RRP, San Juan, PR	May 1, 2015
Convención Anual Colegio de Nutricionistas y Dietistas de Puerto Rico	Hotel Sheraton Convention Center, San Juan, PR	August 5-7, 2015
Nuevas Guías Alimentarias para Puerto Rico	Comfort Inn, Levittown, PR	October 23, 2015
Cambios académicos y su impacto en el currículo y en el avalúo de programas académicos	UPR, MSC, San Juan, PR	October 30, 2015
Tecnología de Alimentos	Hotel Marriott, San Juan, PR	December 11, 2015
Conversatorio Multisectorial: Plan de Acción para la prevención de la obesidad en Puerto Rico	UPR, RRP, San Juan, PR	February 26, 2016
Perspectiva del Cannabis Medicinal basado en evidencia científica	Intercontinental San Juan Resort & Casino, Isla Verde,	March 11, 2016

TITLE	PLACE	DATE
	PR	
Congreso Anual Academia de Nutrición y Dietética Capítulo de Puerto Rico	Hotel Sheraton, San Juan, PR	March 9-10, 2016
Huntington Conference	UPR, MSC, San Juan, PR	September 7, 2016
ACEND Program Director workshop	Boston IL	October 14-15, 201
Manejo Médico Nutricional de Condiciones Gastrointestinales	Terra Convention Center, Guaynabo, PR	December 8, 2016
Taller Preparación de Menú Certificado	Hospital Auxilio Mutuo, San Juan, PR	January 13, 2017
Congreso Anual Academia de Nutrición y Dietética Capítulo de Puerto Rico	Hotel Four Points, Caguas, PR	March 9, 2017
Taller OneNote	UPR, MSC, San Juan, PR	March 24, 2017
Medical Nutrition Therapy in Hepatic Conditions and Transplant	Hospital Universitario de Adultos, San Juan, PR	March 16, 2017
XVI Simposio de Salud Ana G. Méndez: Retos en el manejo de la obesidad: Prevención, aspectos éticos y más allá	Hotel Caribe Hilton, San Juan, PR	March 25, 2017
Google Drive	UPR, MSC, San Juan, PR	November 27, 2017
Aspectos epidemiológicos y de nutrición de la enfermedad de Alzheimer	Club Rotario de Río Piedras, PR	January 26, 2018
Taller: Estrategias para desarrollar la consejería nutricional en personas con diabetes	Colegio de Nutricionistas y Dietistas de PR, San Juan, PR	February 3, 2018
Effective Mentoring Tools	UPR, MSC, San Juan, PR	February 16, 2018
Principios del diseño instruccional en educación a distancia	UPR, MSC, San Juan, PR	February 21, 2018
Obesity and Pregnancy: Medical Nutrition Therapy	Hospital Universitario de Adultos, San Juan, PR	March 16, 2018
El impacto de la detección y manejo temprano en el paciente con fallo renal crónico (CKD)	Hospital Auxilio Mutuo, San Juan, PR	March 18, 2018
Tomando Control del VIH: Tratamiento, investigación sobre la cura y envejecimiento	Universidad Central del Caribe, Bayamón, PR	April 27, 2018
7mo Simposio Annual Título V y 7mo Scientific Day PRCTRC	UPR, MSC, San Juan, PR	May 9-10, 2018
Indicadores de aprendizaje estudiantil: Sabes cómo identificarlos?	UPR, MSC, San Juan, PR	May 11, 2018
Health Insurance Portability and Accountability Act HIPAA	Hospital Universitario de Adultos, San Juan, PR	August 3, 2018
Convención Anual Colegio de Nutricionistas y Dietistas de Puerto Rico	Wyndham Grand Río Mar, Río Grande, PR	August 8, 2018

TITLE	PLACE	DATE
Taller Gift como técnica de avalúo en el proceso de enseñanza-aprendizaje	UPR, MSC, San Juan, PR	September 14, 2018
Conversatorio: Entrevista de los estudiantes como requisito del proceso de admisión a los programas académicos	UPR, MSC, San Juan, PR	February 20, 2019
Avalúo de malnutrición en instituciones de cuidado directo	Club Rotario de Río Piedras, PR	March 1, 2019
Congreso Anual Academia de Nutrición y Dietética Capítulo de Puerto Rico	Terra Convention Center, Guaynabo, PR	April 12, 2019
Taller Paciente Estandarizado: Una estrategia de evaluación de competencias de los estudiantes	UPR, MSC, San Juan, PR	April 26, 2019
Plan de acción para la prevención de la obesidad en PR: Informe de Progreso 2016-2018	San Juan, PR	June 14, 2019
Health Insurance Portability and Accountability Act HIPAA	Hospital Universitario de Adultos, San Juan, PR	August 8, 2019
Future Education Model Program Director Workshop	Academy of Nutrition and Dietetics, Chicago, IL	August 15-16, 2019
Conceptos básicos de control de infecciones	Hospital Universitario de Adultos, San Juan, PR	August 23, 2019
Tirador activo, conducta violenta, comunicación de riesgos, prevención de incendio y manejo de ambiente de cuidado (seguridad)	Hospital Universitario de Adultos, San Juan, PR	August 8, 2019
Taller Integración del estudiante en su experiencia educativa mediante estrategias de aprendizaje activo	UPR, MSC, San Juan, PR	August 30, 2019
Convención Anual Colegio de Nutricionistas y Dietistas de Puerto Rico	Centro de Convenciones de PR	July 31 – August 2, 2019
Taller del Portafolio Profesional Trastornos alimentarios y nutrición	Jardín Botánico Sur, Río Piedras	September 21, 2019
Taller Diabetes: Insulina y alimentación en embarazadas, pediátricos y adultos	Jardín Botánico Sur, Río Piedras	December 6, 2019
Taller: Práctica Privada Exitosa y Simposio Educativo de nutrición	Jardín Botánico Sur, Río Piedras	February 7, 2020
Congreso Anual Academia de Nutrición y Dietética Capítulo de Puerto Rico	Virtual	July 17, 2020
Nutrición del Atleta desde el 1K hasta el <i>Ironman</i>	Virtual	September 26, 2020

#### EXTRACURRICULAR ACTIVITIES (Community activities, special interests, talents, skills and hobbies)

1. Volunteer service at: The Academy of Nutrition and Dietetics and Colegio de Nutricionistas y Dietistas de Puerto Rico

2. Presentations in public service: radio and television programs
3. Running 5k, 10k and half marathons
4. Volleyball
5. Travel

**PARTICIPATION IN SPECIAL COMMITTEES, BOARDS, ACADEMIC SENATE, ADVISORY COUNCIL OR OTHER – IN UPR, OTHER ACADEMIC INSTITUTIONS, IN PUERTO RICO OR ABROAD, IN THE LAST FIVE YEARS (Names and dates)**

NAME	DATES
1. Curriculum Committee, School of Health Professions, Medical Sciences Campus, University of Puerto Rico	President 2015-2017 and 2010-2012
1. Accreditation Advisory Committee Board, University of Puerto Rico, Río Piedras Campus, Nutrition and Dietetics Program	2014-present
2. Accreditation Advisory Committee Board, Department of Health, Dietetic Internship Program	2014-2018
3. Lydia J. Roberts Conference Committee Board, University of Puerto Rico, Education Faculty	2016 - present
4. External Stakeholder, Universidad Ana G. Méndez, Coordinated Program in Dietetics	2018
5. Puerto Rico Board of Nutritionist and Dietitians, Advisory Committee Board Member	October 2, 2018 - present

**PARTICIPATION IN NATIONAL OR INTERNATIONAL SCIENTIFIC MEETING OR SPECIAL LECTURES DURING THE LAST FIVE YEARS**

MEETING	TITLE	PLACE HELD	DATE	PRESENTOR (yes or no)
1. Academy of Nutrition and Dietetics	Food Nutrition Conference & Expo	Nashville, TN	2015	No
2. Academy of Nutrition and Dietetics	Food Nutrition Conference & Expo	Boston, MA	2016	No
3. Academy of Nutrition and Dietetics	Food Nutrition Conference & Expo	Chicago, IL	2017	No
4. Academy of Nutrition and Dietetics	Food Nutrition Conference & Expo	Washington, DC	2018	No
5. Academy of Nutrition and Dietetics	Food Nutrition Conference & Expo	Philadelphia, PA	2019	No
6. Academy of Nutrition and Dietetics	Food Nutrition Conference & Expo	Virtual conference	2020	No

**LEARNING RESOURCES AUTHORED OF CO-AUTHORED**

(Video, tapes, movies, self-study units, others)

TITLE	DATES
1. N/A	

**THESIS AND SPECIAL REPORTS**

TITLE	DATES
1. <i>Estado de salud y hábitos de alimentación de infantes que recibieron lactancia materna, participantes Programa WIC, San Juan, Puerto Rico</i>	2005
2. <i>Conocimientos y actitudes sobre el sobrepeso y la obesidad, de profesores en una universidad pública en Puerto Rico</i>	2018

**BIBLIOGRAPHY**

(Please include all your publications specifying authors, titles, journal, volume, pages and year)

**Example:**

Moe, G.K., Abildskow, J.A., and Mendez, C. An Experimental Study of Concealers Conduction, Amer Heart J 67; 338, 1974.

**PLEASE LIST BOOKS FIRST, THEN FULL ARTICLES AND LAST, THE ABSTRACTS**

- Díaz, A. (2014) Nuevas Guías para el tratamiento del sobrepeso y la obesidad. Equilibrium-Vol. 13, No. 1. Colegio de Nutricionistas y Dietistas de Puerto Rico. San Juan, PR
- Díaz, A. (2017) 10 Consejos para tomar el examen de RDN. Equilibrium-Vol. 16, No. 1. Colegio de Nutricionistas y Dietistas de Puerto Rico. San Juan, PR

**PARTICIPATION IN PROJECTS, PROGRAMS, GRANTS, CONTRACTS**

TITLE OF PROJECT	POSITION HELD	DATE	SOURCE	AMOUNT OF FUNDING (if known)
1. Centro Desarrollo Infantil, MSC, UPR	Food Service Nutritionist-Dietitian	2008-2013	Graduate School of Public Health	

**LANGUAGES** (Includes native language, other and level of command)

Indicates level with number:

➤ 1 - Good    2 - Fair    3 - A little    4 - Not at all

COMMAND OF LANGUAGES			
LANGUAGE	SPEAKING	WRITING	COMPREHENSION
SPANISH	1	1	1
ENGLISH	1	1	1
OTHER	N/A		

**REFERENCES** (List name, address and email of three persons who have knowledge of your qualifications)

NAME	ADDRESS	EMAIL
1. Dra. Elsa Pinto López	Madrid #2 Palma Real Apt. 4-j San Juan, PR 00907	elsa.pinto@upr.edu
2. Dra. Ivonne Angleró Vega	PO Box 364782 San Juan, PR 00936-4782	ivonne.anglero@upr.edu
3. Dra. Nancy Correa Matos	3-25 Cordova Street Torrimar Guaynabo, PR 00966	nancy.correa@upr.edu

## DECLARATION

I hereby declare that the facts set forth on this Curriculum Vita are true and complete to the best of my knowledge and by no means had been made an act of deceiving or misrepresenting.

You are hereby authorized to make any investigation of my personal history.



November 4, 2020

---

SIGNATURE

---

DATE

*Approved for Administrative Board in its regular meeting on August 25, 2015 and is stated on the Certification Number 02, 2015-16, JA-RCM.*

NBJ/NJAS/ynr