

Certificación Núm. 53

Año Académico 2023-2024

UNIVERSIDAD DE PUERTO RICO
RECINTO DE RÍO PIEDRAS



Senado Académico
Secretaría

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

En la reunión ordinaria celebrada de forma asincrónica a partir del 6 de diciembre, y culminada de forma presencial el 11 de diciembre de 2023, se acordó por consentimiento unánime:

- Aprobar la **Propuesta de Cambio Significativo de la Maestría en Ciencias en Nutrición y Dietética con Experiencia de Aprendizaje Supervisado, a Distancia**, del Programa de Nutrición y Dietética, de la Facultad de Ciencias Naturales¹.
- 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 doce días del mes de diciembre del año dos mil veintitrés.

Dra. Claribel Cabán Sosa
Secretaria del Senado

vvr

Certifico correcto:

Dra. Angélica Varela Llavona
Rectora

Anejo



¹ Significant Change Proposal to the Master of Science in Nutrition and Dietetics with a Supervised Experimental Learning at the Nutrition and Dietetics Program (Distance Education Program).



Significant Change Proposal to the Master of Science in Nutrition and Dietetics with a Supervised Experiential Learning at the Nutrition and Dietetics Program (Distance Education Program), College of Natural Sciences, University of Puerto Rico, Río Piedras.

Nutrition and Dietetics Program

Approved, Curriculum Committee, Nutrition and Dietetics Program (September 13, 2023)

Approved, Joint Meeting Academic Affairs Committee and Board of Graduate Studies,
College of Natural Sciences (October 4, 2023)

Approved, Graduate Studies and Research Council (CEGI) (October 20, 2023)

Approved, Academic Affairs Committee, Academic Senate (December 1, 2023 - Referendum #1 2023-2024 CAA)

Approved, Academic Senate (Certification No. 53, Academic Year 2023-2024 - December 11, 2023)

Approved, Board of Governance (Certification No. _____, Academic Year 2023-2024)

Approved, Board of Postsecondary Institutions (Certification No. _____, 2024)

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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

PEP Program Evaluation Plan

PIP Program Improvement Plan

PR Puerto Rico

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)

VS Verification Statement

I. EXECUTIVE SUMMARY

The Significant Change Proposal to the Master of Science in Nutrition and Dietetics (MSND) with Supervised Experiential Learning program, Distance Education Program (MSND-SEL) is submitted to comply with ACEND's Standard 7: Information to Prospective Students and the Public (Required Element 7.1) that establishes the following: Program policies, procedures, practices, and materials related to student recruitment and admission must comply with state and federal laws and regulations. Recruitment and admission practices must be applied fairly and consistently. Program shall demonstrate by tangible action their commitment to enrolling a diverse student body. At the time of the first call of applicants (second semester 2022-2023), to initiate program's first cohort for August 2023, implementation of admission criteria confronted confusion and several interpretations among potential applicants.

Moreover, changes in program's admission requirements are recognized by the Board of Postsecondary Institutions, Bylaws 9272 of April 23, 2021 (Certification No. 2021-053). Article 30.2 Significant changes that do not require certification (page 74), includes: a. *Changes in politics or admission criteria; d. Changes in institutional catalogs.*

Significant changes affect only sections of the proposal that relate to MSND-SEL program admission criteria: Changes to specific admission criteria, justification and date of effectiveness, revised catalog information, how changes will be notified to the academic and professional communities and, to prospective students and the public. Other sections of the proposal have been updated with program's ACEND accreditation requirements met.

II. NAME OF THE PROGRAM AND ACADEMIC DEGREE TO BE CONFERRED

Master of Science in Nutrition and Dietetics with Supervised Experiential Learning, Distance Education Program (MSND-SEL).

IPED classification: 30.1901 Nutrition Sciences

A. Program Description

The Master of Science in Nutrition and Dietetics with Supervised Experiential Learning (MSND-SEL) is a combined online-onsite single program that integrates the Master of Science degree along with the 1,000 hours of supervised and alternate experiential learning (SEL), in professional work settings and in alternate experiences, required to become eligible to take the Commission on Dietetic Registration (CDR) credentialing Exam for Dietitian Nutritionist (Registered Dietitian Nutritionist) and local licensure exam. The Program follows a Competency-Based Education (CBE) model of the accrediting agency, the Accreditation Council on Education in Nutrition and Dietetics (ACEND), in which the curriculum is based on professional roles and student evaluation includes demonstrated performance in some aspects of that role. It is designed as a cohort- curricular sequential program and students are expected to be full-time and complete the program in 2 years (four-semester with one summer).

The supervised experiential learning hours consist of 280 hours of alternate experiential learning embedded in online required courses and 720 hours equivalent to 8 credits of supervised experiential learning that must be completed in practice sites. As required by ACEND, the program has policies and procedures to address the selection and periodic evaluation of the adequacy and appropriateness of facilities to ensure that sites are able to provide supervised experiential learning compatible with the competencies that students are expected to achieve. While the program will make every best effort to assign SEL sites based on students' interests and other logistical considerations, no given facility can be guaranteed at the time of the application for admission.

On March 19, 2021, the Nutrition and Dietetics Program, under the College of Natural Sciences at the Río Piedras Campus (RPC) of the University of Puerto Rico (UPR) received ACEND's approval and is part of the Fifth Demonstration Cohort of Future Education Model Accreditation Standards Graduate Degree Programs (GP-FEM) and applying competency-based education. GP-FEM demonstration programs 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 waived fees for candidacy application and a one-year accreditation fee.

On June 24, 2022, ACEND's Chair notified the Board's action to the proposed GP-Graduate Program at the University of Puerto Rico, granting Candidacy for Accreditation for a four-year accreditation term. ACEND recognized program's compliance with ACEND Accreditation Standards.

The MSND-SEL program will offer three admission pathways:

- PATHWAY ONE: Direct entry admission, for students with an ACEND's accredited bachelor's degree in Nutrition and Dietetics and receives a Verification Statement upon completion.
- PATHWAY TWO: For students with a bachelor's degree in Nutrition and Dietetics.
- PATHWAY THREE: For students who have completed an undergraduate degree in:
 - ✓ science other than Nutrition and Dietetics
 - ✓ fields not related to scienceand need a Second Major in Nutrition and Dietetics.

III. STARTING DATE AND LENGTH OF THE PROGRAM

A. Starting Date

Second call of applicants for August 2024 admission.

B. Length of the Program and Maximum Time for Completion

The Master of Science in Nutrition and Dietetics with Supervised Experiential Learning is designed as a cohort-curricular sequential program. Students are expected to be full-time and complete the program in 2 years (four-semesters with one summer). Courses will not be offered each semester. Students should work diligently to demonstrate successfully expected competencies and pass courses the first time they are taken in compliance with continuing in their individual admission cohort. Repeating one course will mean a student waits one year for it to be offered again.

Following statutes established in Certification No. 95 (2019-2020) of the Academic Senate - Academic Policy for Graduate Studies at the Río Piedras Campus, the student must complete the degree in a maximum time of 5 years.

IV. PROFESSIONAL ACCREDITATION AND PRACTICE REQUIREMENTS

A. Professional Accreditation

On June 24, 2022, ACEND's Chair notified the Board's action to the proposed GP-Graduate Program at the University of Puerto Rico, granting Candidacy for Accreditation for a four-year accreditation term. ACEND recognized program's compliance with ACEND Accreditation Standards.

<https://www.eatrightpro.org/-/media/files/eatrightpro/acend/accreditation-standards-fees-and-policies/future-education-model-standard-and-templates-v2022/fem-graduate->

[reformat.pdf?rev=c48694162c6148c7a0a162707027fade&hash=4420CD68FB07A07E11DAC2027AAAC03E](https://www.eatrightpro.org/acend/pdf?rev=c48694162c6148c7a0a162707027fade&hash=4420CD68FB07A07E11DAC2027AAAC03E)

Students accepted as of this date, and those in succeeding classes, will be considered graduates of an ACEND accredited program and eligible, upon satisfactory completion of the program, to write the Commission on Dietetic Registration's Registration Examination for Dietitians. **In Puerto Rico, the Master of Science in Nutrition and Dietetics with Supervised Experiential Learning is the only graduate program in Nutrition and Dietetics accredited by ACEND.** <https://www.eatrightpro.org/acend/accredited-programs/program-directory>

The Master of Science in Nutrition and Dietetics with Supervised Experiential Learning operates under the Accreditation Council on Education in Nutrition and Dietetics, Future Graduate Demonstration Programs. Under this classification, the Nutrition and Dietetics Program is part of ACEND's fifth cohort of demonstration programs and receives training and guidance for program implementation. Demonstration programs 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.

<https://www.eatrightpro.org/acend/about-acend/acend-data/rationale-for-future-education-of-nutrition-and-dietetics-practitioners> - Rationale for Future Education Model
<https://www.eatrightpro.org/search-results?keyword=future%20education%20model> – Accreditation Process, Future Education Model

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.

<https://www.eatrightpro.org/-/media/files/eatrightpro/acend/accreditation-standards-fees-and-policies/future-education-model-standard-and-templates-v2022/fem-graduate-reformat.pdf?rev=c48694162c6148c7a0a162707027fade&hash=4420CD68FB07A07E11DAC2027AAAC03E> – ACEND Accreditation Standards for Nutrition and Dietetics Graduate Degree Programs (Future Education Model)

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.

B. Professional Requirements

Graduates of the Master of Science in Nutrition and Dietetics with Supervised Experiential Learning will be eligible to take the CDR credentialing Exam for Dietitian Nutritionist (Registered Dietitian Nutritionist) and the local exam to practice as a Licensed Nutritionist and Dietitian (LND) in PR as required by Law 82 of 1972, as 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, as the entry-level degree to the profession, that beginning on January 1st of 2024, a graduate degree will be required to take the CDR credentialing Exam for Dietitian Nutritionist. It is also expected that amendments to Puerto Rico Law 45 of 2004 being considered, will require a graduate degree for the local licensure 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 CDR credentialing exam to be able to practice as a Dietitian Nutritionist in PR and United States mainland.

Graduates of the Master of Science in Nutrition and Dietetics with Supervised Experiential Learning will receive a competency-based education that integrates theory (didactic coursework) 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.

V. JUSTIFICATION

The Significant Change Proposal to the Master of Science in Nutrition and Dietetics with Supervised Experiential Learning program (MSND-SEL) is intended to ensure compliance with ACEND's Standard 7: Information to Prospective Students and the Public (Required Element 7.1) that establishes the following: Program policies, procedures, practices, and materials related to student recruitment and admission must comply with state and federal laws and regulations. Recruitment and admission practices must be applied fairly and consistently. Program shall demonstrate by tangible action their commitment to enrolling a diverse student body.

At the time of the first call of applicants (second semester 2022-2023), for program cohort August 2023, implementation of established admission criteria confronted confusion and several interpretations among potential applicants.

1. Not established as specific admission criteria that the BS in Nutrition and Dietetics must be accredited by ACEND.

The Accreditation Council for Education in Nutrition and Dietetics (ACEND®) is the Academy of Nutrition and Dietetics accrediting agency for education programs preparing students for careers as registered dietitian nutritionists or nutrition and dietetic technicians, registered. Currently, ACEND has more than 600 accredited programs across the United States and select countries internationally, with in-person and online options.

<https://www.eatrightpro.org/acend/accredited-programs/about-accredited-programs>

The approved proposal for the establishment of the Master of Science in Nutrition and Dietetics with Supervised Experiential Learning¹ specifies the following in the introductory paragraph of the Admissions Requirements (page 24):

¹ Certification No. 56, Board of Governance, December 17, 2021; Certification No. 2022-197, Board of Postsecondary Institutions, July 14, 2022.

“However, the program 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 1972², 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.”

Nevertheless, Puerto Rico’s Law No. 82 is not specific in terms of the required “regional organism of national accreditation”:

Law No. 82 of May 31, 1972, as amended, rules the practice of Nutrition and Dietetics in Puerto Rico, creates the Board of Nutritionists and Dietitians, and establishes the College of Nutritionists and Dietitians of Puerto Rico. Article 6.b, Requirements to obtain license specifies the following¹: Bachelor degree awarded with major in nutrition or dietetics of an accredited higher education or college institutions by the Higher Education Council (known today as Board of Postsecondary Institutions) or by one of the regional organisms of national accreditation and have completed an internship in nutrition or dietetics in a hospital or accredited institution for such training, or in substitution of this internship, possess a master or doctor degree in nutrition or dietetics of a higher education or college institution recognized by the Higher Education Council or by one of the regional organisms of national accreditation.

2. Prerequisites of required undergraduate courses were not specified, which constitute a Second Major in Nutrition and Dietetics offered under the accredited BS in Nutrition and Dietetics of the UPR Río Piedras Campus, to comply with ACEND’s undergraduate competencies.

Potential applicants confronted confusion and inconsistent interpretations. Among these: 1) Only course titles were provided, which caused requests of applicants to evaluate courses from other bachelors’ degrees; 2) no credits or prerequisites of nutrition, hard science and math courses were specified; and, 3) no specified estimated time to comply with required undergraduate requirements.

Current specific program’s admission criteria:

Specific Admission criteria for the MSND-SEL program

Admission criteria 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.

² <https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/82-1972.pdf>

1. *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 (not applicable to UPRRP DPD students)*
 - *One personal statement*
 - *Minimum score in TOEFL exam of 550 (paper-based) or 213 (computer based). Exam must have been taken no more than two years prior.*

2. *Students with a bachelor's degree in other science related fields:*
In addition to the requirements for a student with a bachelor's degree in Nutrition and Dietetics, students in this pathway must have approved with C or more the following undergraduate courses or their equivalent: Hard science courses: General Biology I-II (BIOL 3101-3102), Microbiology (BIOL 3705), General Chemistry I-II (QUIM 3001-3002), Organic Chemistry (QUIM 3015); Nutrition and Dietetics courses: Food Science (NUTR 4031), Food Purchasing (NUTR 4055), Layout, Design and Equipment Purchasing for Foodservice Systems (NUTR 4068), Menu for Foodservice Systems (NUTR 4086), Human Nutrition I-II (NUTR 4041-4042), Applied Human Nutrition (NUTR 4045), Applied Dietetics (NUTR 4169).

3. *Students with a bachelor's degree in fields not related to science:*
In addition to the requirements for a student with a bachelor's degree in other science related fields, students in this pathway must have approved with C or more the following undergraduate courses or their equivalent: Pre-calculus I-II (MATE 3171-3172), Human Biochemistry (NUTR 4158), Human Biochemistry Lab. (NUTR 4159).

The required specific undergraduate courses and respective prerequisites, not shown, as established for pathways #2 and #3 above, constitutes the *Second Major in Nutrition and Dietetics*, under the BS in Nutrition and Dietetics Program of the Río Piedras Campus, accredited by ACEND. This Second Major has been designed and is available for those interested to practice the profession and possess a bachelor degree in other disciplines, including active undergraduate students in other science majors. Upon approval of the Second Major, students receive a "Verification Statement" which certifies compliance with academic and ACEND's requirements, and also with admission criteria of the MSND-SEL. It also complies with Puerto Rico's Law 82 of 1972³, that requires a bachelor's degree in Nutrition or Dietetics to be eligible

³ Law No. 82 of May 31, 1972, as amended, rules the practice of Nutrition and Dietetics in Puerto Rico, creates the Board of Nutritionists and Dietitians, and establishes the College of Nutritionists and Dietitians of Puerto Rico. Article 6.b, Requirements to obtain license specifies the following³: Bachelor degree awarded with major in nutrition or dietetics of an accredited higher education or college institutions by the Higher Education Council (known today as Board of Postsecondary Institutions) or by one of the regional organisms of national accreditation and have completed an internship in nutrition or dietetics in a hospital or accredited institution for such training, or in substitution of this internship, possess a master or doctor degree in nutrition or dietetics of a higher education or college institution recognized by the Higher Education Council or by one of the regional organisms of national accreditation. <https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/82-1972.pdf>

to sit for the local licensure exam and, upon approval, practice as Licensed Nutritionist Dietitian (LND).

Students admitted to the Second Major sit in the daytime, presentational-regular programming of courses and sections offered for the BS in Nutrition and Dietetics. It is estimated that the student will take up to at least two years and a half to approve the Second Major requirements with concurrent or previous approval of science and math courses prerequisites.

VI. RELATION OF THE PROGRAM 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 with Supervised Experiential Learning 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-SEL mission is aligned with the *University's Strategic Plan of 2017-2022: A New Era of Innovation and Transformation for Student Success* (Certification No. 50 of 2016-2017) by offering high quality and innovative programs that will generate professionals able to contribute and serve in the community. Similarly, the MSND-SEL is aligned with the strategic plan of the Río Piedras Campus of 2018-2023 (Certification No. 79 of 2017-2018). In particular, with Goal 2.1, by creating an online graduate program that responds to professional and societal needs.

The graduate program contributes to each of the core values identified in the current UPR's strategic plan such as:

1. Institutional innovation. The MSND-SEL is part of the Fifth Demonstration Cohort programs and will be a model for others in United States and PR. It is the first online graduate program in Puerto Rico using competency-based education integrated with supervised experiential learning and that meets requirements to take the local licensure exam and CDR Credentialing Exam. The curriculum is based on professional roles and student evaluation includes demonstrated performance in some aspects of that role.
2. Institutional transformation. The MSND-SEL 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-SEL 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 used in the MSND-SEL 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.

A new UPR Strategic Plan 2023-2028 has been approved: A cartography of creative and innovative actions (Certification No 16, 2023-2024, UPR Board of Governance). The MSND-SEL embraces the new system-wide strategic plan context being a cost-effective and self-sufficient online program, that complies with the mission, academic goals and administrative operations, as approved by the Río Piedras Campus Administrative Board and UPR Board of Governance. As a competency-based education program, it addresses the demographic transition of a diverse student population interlocking, the academic and professional development pathway, undergraduate and graduate ACEND's accredited programs in Puerto Rico. Also, as a combined online-onsite two-year graduate program is pertinent and responds to the accelerated technological changes in education as a consequence to global pandemic.

VII. RELATION OF THE CURRENT ACADEMIC OFFER WITH OTHERS INSIDE AND OUTSIDE OF THE UPR

The Master of Science in Nutrition and Dietetics with Supervised Experiential Learning is 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 Credentialing Exam.

Students eligible to apply to the MSND-SEL include graduates from the ACEND's accredited undergraduate Nutrition and Dietetics Programs and provides a pathway for graduates from other fields interested in pursuing Nutrition and Dietetics. Those with an undergraduate degree from other fields of science or fields not related to science will need to complete additional undergraduate courses prior to admission as specified in section XI of this proposal.

VIII. COMPETENCIES THAT DEFINE THE GRADUATE PROFILE IN ALIGNMENT WITH ACCREDITATION STANDARDS

A. ACEND'S Master's-Level Graduate Expectations

The following are the expectations for graduates of a Future Education Model Graduate Program, accredited, as the Masters of Science in Nutrition and Dietetics with Supervised Experiential Learning of the Río Piedras Campus, University of Puerto Rico.

- a. Demonstrate leadership skills, including actively engaging in mentoring others (scholarship of Teaching);
- b. Integrate problem-solving/critical thinking skills throughout their professional life (scholarship of Application);
- c. Synthesize independent thoughts/critique within their field of expertise (scholarship of Application);
- d. Enter any employment setting and demonstrate confidence in their ability to grow, work independently and be a member of an interprofessional team (scholarship of Integration);
- e. Ability to do independent and collaborative research/inquiry and apply research/evaluation methodology to topic of interest (scholarship of Discovery);
- f. Continue to learn and develop skills as new knowledge/new research data become available (scholarship of Discovery); and
- g. Provide expertise as to how the dietetics field applies to public policy, global health, strategic thinking, etc. (scholarship of Application).

<https://www.eatrightpro.org/-/media/files/eatrightpro/acend/accreditation-standards-fees-and-policies/2022-standards-and-templates/guidance-information-guidance-for-determining-quality-of-masters-degree.pdf?rev=d229b6e8692f4ac7bd0077a294263888&hash=6C2C43CF8FBCA9C55DEFFD137EB86B6C>

B. ACEND's Future Education Model Graduate Degree Program Competencies

As established by ACEND's Future Education Model Accreditation Standards for Graduate Degree Programs (GP), MSND-SEL graduates must show 37 competencies (7 Assessment Units), among which there are 16 Graduate Degree Enhanced Competencies (5 Assessment Units) for a Graduate Degree Practitioner (**Appendix A**).

Future Education Model Graduate Degree Competencies

<https://www.eatrightpro.org/acend/accreditation-standards-fees-and-policies/future-education-model-standards-and-templates> (Requirement 4.1)

Unit 1: Foundational Knowledge

Applies foundational sciences to food and nutrition knowledge to meet the needs of individuals, groups, and organizations.

Unit 2: Client/Patient Services

Applies and integrates client/patient-centered principles and competent Nutrition and Dietetics practice to ensure positive outcomes.

Unit 3: Food Systems Management

Applies food systems principles and management skills to ensure safe and efficient delivery of food and water.

Unit 4: Community and Population Health Nutrition

Applies community and population nutrition health theories when providing support to community or population nutrition programs.

Unit 5: Leadership, Business, Management and Organization

Demonstrates leadership, business and management principles to guide practice and achieve operational goals.

Unit 6: Critical Thinking, Research and Evidence-Informed Practice

Integrates evidence-informed practice, research principles and critical thinking into practice.

Unit 7: Core Professional Behaviors

Demonstrates professional behaviors and effective communication in all nutrition and dietetics interactions.

Enhanced Competencies

<https://www.eatrightpro.org/-/media/files/eatrightpro/acend/accreditation-standards-fees-and-policies/future-education-model-standard-and-templates-v2022/enhanced-competencies-for-gp-programs.pdf?rev=52c9173bd58e413184fdb604721dbb29&hash=CAD74CA0984954F483B86B9A8FF1810A>

Unit 1: Prescribing medical nutrition therapy/ pharmacotherapy (4 competencies)

Unit 2: Administration/Leadership (5 competencies)

Unit 3: Global/community/public health (4 competencies)

Unit 4: Research (2 competencies)

Unit 5: Medical nutrition therapy counseling/behavior modification (1)

IX. CONCEPTUAL FRAMEWORK AND PROGRAM COMPONENTS

A. Conceptual Framework

1. 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.

2. Program goals and objectives

Goal 1 | Prepare well-qualified students to become Registered Dietitian Nutritionists and contribute to the overall well-being of the population in a variety of educational, administrative, and clinical services, and in the management of foodservice systems settings or related fields.

- a. At least 80% of program graduates complete program within 3 years (150% of the program length).
- b. At least 70% of program graduates take the CDR credentialing Exam for Dietitian Nutritionist within 12 months of program completion.
- c. The program's one-year pass rate (graduates who pass the registration exam within one year of first attempt) on the CDR credentialing exam for Dietitian Nutritionist is at least 80% (Graduate Performance on Registration Exam)
- d. The Program's one-year pass rate on the local licensure exam for Dietitian Nutritionist is at least 80%.
- e. Of graduates who seek employment, at least 75% are employed in Nutrition and Dietetics settings (educational, administrative and clinical services and in the management of foodservice systems) or related fields within 12 months of graduation. (Graduate Employment)

Goal 2 | Prepare well-qualified students to become Registered Dietitian Nutritionists and contribute to the overall well-being of the population in a variety of educational, administrative, and clinical services, and in the management of foodservice systems settings or related fields.

- a. At least 80% of graduates who answer the Graduate's Survey will rate the overall preparation in Nutrition and Dietetics as satisfactory or above.
- b. At least 80% of graduates who complete the requirements for becoming Dietitian Nutritionist indicate they work effectively with culturally diverse populations in a variety of settings.
- c. At least 80% of the employers indicate they consider the graduates preparation for entry level is satisfactory or above. (Employer satisfaction)
- d. At least 80% of the employers indicate graduates participate in research to advance nutrition, dietetics or related field when required.

As required by ACEND, shows the Program Evaluation Plan (**Appendix B**) and the Program Improvement Plan (**Appendix C**).

3. Teaching philosophy

Nutrition and Dietetics is an evidence-based health profession that use documented scientific evidence to inform professional practice. It encompasses three main areas of practice: community, clinical and management. Graduates are expected to have the competencies necessary to practice in all areas of Nutrition and Dietetics. Thus, the MSND-SEL 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).

4. Coherence and sufficiency

The mission and objectives of the MSND-SEL 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 program is aligned to meet ACEND's graduate 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 credentialing exam and the local licensure exam to practice as a Nutritionists and Dietitians 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-SEL are equipped to serve in the community, clinical and administrative positions of Nutrition and Dietetics.

B. Curricular Design and Balance

The MSND-SEL complies with ACEND's Standard 4: Curriculum and Learning Activities: *The competencies must be the basis on which the program's curriculum is built. Demonstration of competence must be integrated in the coursework and supervised experiential learning activities throughout the program.*

Accordingly, the MSND-SEL applies a curriculum design model whereby didactic coursework is combined with experiential learning in real-world and simulated settings. The curriculum is designed so that the learning that takes place within the classroom is then applied in a setting that is overseen by a preceptor. The key element in experiential learning is that the entire

didactic learning does not come first within the program, followed entirely by experiential learning, but that both components are woven together throughout the educational program.

The curricular design integrates in a single program didactic with supervised experiential learning using Competency-Based Education to be completed in two years, including one summer. 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: community nutrition, clinical nutrition and foodservice management, thus be able to hold positions in any area upon graduation.

The proposed curriculum has a total of 45 credits that includes 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. During planned experiential learning activities students perform tasks under supervision to demonstrate mastery of ACEND competencies. Experiential learning activities include case studies, role playing, simulation, and practice in professional work settings. An alternate experience resembles or imitates real-life work experiences through guided, participative experiences that evoke or replace substantial aspects of the real world in a fully interactive manner.

1. Curricular structure

The proposed curriculum consists 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 1. Distribution of courses in the MSND-SEL with supervised experiential learning

Curricular Components		
Core Courses		
Course code	Course Title	Credits
MATH 6686	Advanced Data Analysis and Experimental Design	3
NUTR 6002	Research Methods in Nutrition and Dietetics	3

Curricular Components			
NUTR 6003	Nutrient Metabolism		3
NUTR 6004	Ethics and Professionalism		1
	Subtotal		10
Specialty Courses			
Course code	Course Title		Credits
NUTR 6112	Foodservice Management		3
NUTR 6013	Nutrition Assessment Diagnosis		3
NUTR 6010	Medical Nutrition Therapy and Pathophysiology		3
NUTR 6012	Nutrition Education and Counseling		3
NUTR 6111	Global Nutrition		3
NUTR 6011	Pathophysiology of Life Span		3
NUTR 6113	Advanced Concepts in Nutrition		3
	Subtotal		21
Research Project			
Course code	Course Title		Credits
NUTR 6110	Research Project		3
NUTR 6110	Research Project (Continuation)		0
	Subtotal		3
Supervised Experiential Learning (SEL)			
Course code	Course Title	Contact hours (Each semester)	Credits
NUTR 6014	Clinical Nutrition Supervised Experiential Learning	270	3
NUTR 6115	Community Nutrition Supervised Experiential Learning	180	2
NUTR 6116	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 G - Graduate Catalog**.

2. Flexibility

The MSND-SEL 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. Undergraduate and graduate 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.

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 needed to sit for the RDN credentialing and local licensure exams. 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 (UPR) 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 2**) indicates the number of credits range from 39 to 68 credits to complete the degree.

Table 2. Comparison of total credits among Future Education Model 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

C. Curricular Sequence, Coherence and Sufficiency of the Coursework

1. Curricular sequence

The MSND-SEL curricular sequence by semester of study is presented in **Table 3**. 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. **Refer to Table 4, Alternate Experiential Learning Hours.**

The summer and second year include remaining specialization courses and supervised experiential learning that are completed in a practice site where students will be placed in diverse 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. Starting in the summer and during the second year, students will also complete a research project.

Table 3. Curricular sequence of the MSND-SEL⁴

First Year			
1st Semester		2nd Semester	
Courses	Cred.	Courses	Cred.
Advanced Data Analysis and Experimental Design	3	Global Nutrition	3
Research Methods in Nutrition and Dietetics	3	Foodservice Management	3
Nutrient Metabolism	3	Nutrition Education and Counseling	3
Ethics and Professionalism	1	Nutrition Assessment Diagnosis	3
Total	10	Total	12
Summer (UPR-RP Seven Weeks)			
Courses			Cred.
Research Project			3
Supervised Experiential Learning: Community Nutrition (26 hours/wk.)			2
Total			5
Second Year			
1st Semester		2nd Semester	
Courses	Cred.	Courses	Cred.
Supervised Experiential Learning: Foodservice Management (18 hours/wk.)	3	Supervised Experiential Learning: Clinical Nutrition (18 hours/wk.)	2
Medical Nutrition Therapy and Pathophysiology	3	Electives	3
Pathophysiology of Life Span	3	Advanced Concepts in Nutrition	3
Research Project	0	Research Project (Continuation)	0
Total	9	Total	9

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

⁴ Revised Curricular Sequence: Minor Change Curricular Proposal – curricular reordering required by ACEND – approval letter submitted by Dr. Orestes Quesada González, Executive Vice President, Central Administration UPR, October 28, 2022

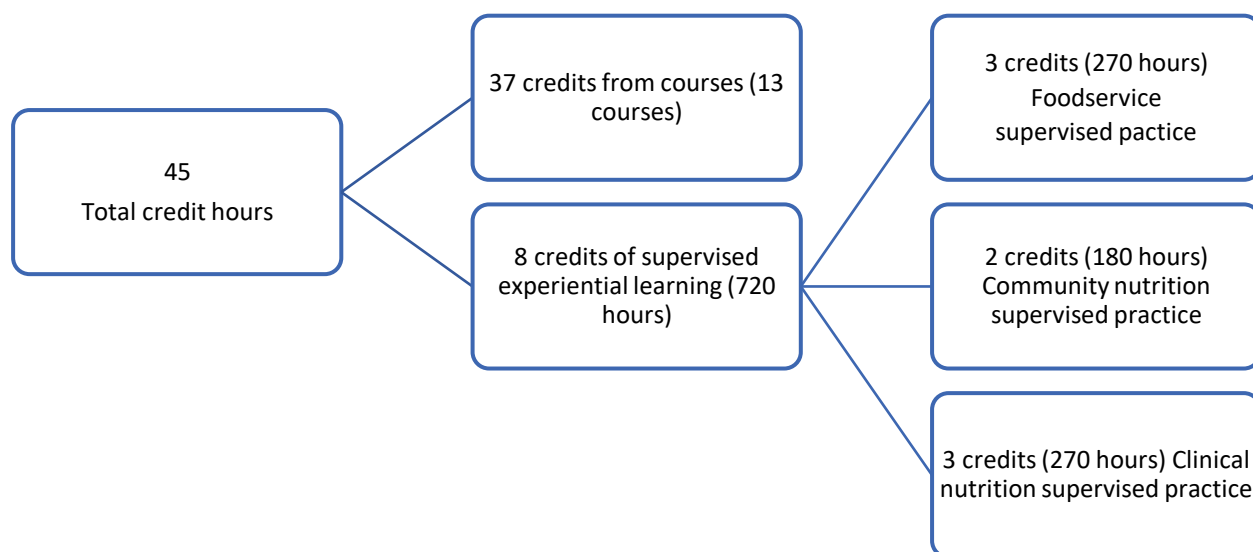
Table 4. Alternate Experiential Learning Hours: Distribution Within Courses

First Year				Summer		Second Year			
1 st Semester	2 nd Semester					3 rd Semester		4 th Semester	
Courses	AEL hrs	Courses	AEL hrs	Courses	AEL hrs	Courses	AEL hrs	Courses	AEL hrs
MATE 6686 Advanced Data Analysis and Experimental Design	----	NUTR 6111 Global Nutrition	31	NUTR 6110 Research Project	----	NUTR 6116 SEL Foodservice Management	----	NUTR 6014 SEL Clinical Nutrition	----
NUTR 6002 Research Methods in Nutrition and Dietetics	22.5	NUTR 6112 Foodservice Management	50.5			NUTR 6010 Medical Nutrition Therapy and Pathophysiology	25.5	NUTR 6113 Advanced Concepts in Nutrition	20
NUTR 6003 Nutrient Metabolism	11	NUTR 6012 Nutrition Education and Counseling	25.5	NUTR 6115 SEL Community Nutrition	----	NUTR 6011 Pathophysiology of Life Span	25	Elective	---
NUTR 6004 Ethics and Professionalism	17	NUTR 6013 Nutrition Assessment Diagnosis	37			NUTR 6110 Research Project (Continuation)	----	NUTR 6110 Research Project (Continuation)	----
Sub-total	50.5	Sub-total	144	Sub-total	0	Sub-total	65.5	Sub-total	20
Total, AEL hours = 280									
Note: Revised curricular sequence (Provided in the Site Visit Report Response and Interim Report)									

Total credit hours: 45 credits (37 coursework + 8 supervised experiential learning)

The Program has a total of 45 credits that include the required courses, elective course 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



2. Curricular coherence and sufficiency of the coursework

The curriculum is sequentially and logically organized, and progresses from introductory to more advance learning experiences. It allows students to build on previous knowledge, skills and experiences to achieve the expected depth and breadth of competence by completion of the program. The curriculum provides coherence and sufficiency of the coursework to 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.

As required by ACEND's Standard 4, sufficiency of the coursework must be documented through a Curriculum Map (**Appendix D**) where each required competence-performance indicator is aligned to a course or supervised experiential learning experience. **Appendix E** shows the Competency Assessment Table which lists the course and course number or rotation in which the competency is assessed, and the required summative assessment method(s)

(exam, rubric, project, etc.) used to measure achievement of the competency. The alignment of each course with the Curriculum Map & the Future Education Model Graduate Degree Competencies-Performance Indicators is presented in **Appendix F**.

STANDARD 4: Curriculum and Learning Activities

The competencies must be the basis on which the program's curriculum is built.

Demonstration of competence must be integrated in the coursework and supervised experiential learning activities throughout the program.

REQUIRED ELEMENTS:

4.1 The Curriculum Map template must be used to document: a) Each competency, b) Performance indicators for each competency on which summative assessment occurs in the curriculum, c) Course(s) and SELs in which summative assessment of performance indicators will occur.

4.2 The program's curriculum must provide learning experiences to attain the breadth and depth of the required curriculum competencies. Syllabi for courses (including those with supervised experiential learning) taught within the academic unit must include the relevant competencies.

X. MODALITY DELIVERY

The MSND-SEL is designed as a cohort full-time sequential program. Offers more than 50% of the curriculum in an online format since all didactic courses will be delivered online. Only the 720 hours (8 credits) of experiential learning will be provided in practice sites. The program utilizes 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.

XI. ADMISSION CRITERIA

The proposed revision to admission criteria is described below.

The program is committed to provide clear, consistent and accurate information about all program requirements to prospective students and the public at large (ACEND's Standard 7).

Program policies, procedures, practices, and materials related to student recruitment and admission comply with state and federal laws and regulations (<https://www.uprrp.edu/oficina-registrador/certificaciones-y-leyes-aplicables/> - Office of the Registrar). Tangible actions, such as documented conversations in meeting minutes, orientations, information sources, and other verifiable activities, will document that changes to admission criteria will be applied fairly and consistently, as well as program's commitment to enrolling a diverse student body (ACEND's Required Element 7.1).

UPR Río Piedras Campus general admission criteria for graduate programs

1. Bachelor's degree (or its equivalent) from an accredited or recognized university or college.
2. General Grade Point Average (GPA) equal or greater than 3.00 on a scale of 4.00. Each program will address exceptional cases according to each applicant's merits.
3. Be able to communicate orally and in writing in two languages, one of which should be Spanish or English.
4. The UPR-RP will provide the academic instance or unit that will determine and inform programs of the proficiency of their students in the second or third language (if the program requires a third language).

Specific Admission criteria for the MSND-SEL program

Admission criteria 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 Pathways

PATHWAY ONE

Direct entry admission for students with an ACEND's accredited bachelor's degree in Nutrition and Dietetics and receive a Verification Statement upon completion. Must comply with UPR-Río Piedras Campus general admission criteria for graduate programs.

As an accredited Future Education Model Graduate Program, the MSND-SEL provides the required Nutrition and Dietetics coursework and supervised experiential learning to meet ACEND's competency requirements to be eligible to sit in national exam to become a Registered Dietitian Nutritionist (RDN). Moreover, complies with Puerto Rico's Law 82 of 1972⁵,

⁵ Law No. 82 of May 31, 1972, as amended, rules the practice of Nutrition and Dietetics in Puerto Rico, creates the Board of Nutritionists and Dietitians, and establishes the College of Nutritionists and Dietitians of Puerto Rico. Article 6.b, Requirements

that requires a bachelor's degree in Nutrition or Dietetics to be eligible to sit for the local licensure exam and, upon approval, practice as Licensed Nutritionist Dietitian (LND).

Because the program is committed to the ACEND's master's-level graduate expectations, as Pathway One, the MSND-SEL will provide a "direct entry admission" for students with a bachelor's degree in Nutrition and Dietetics, accredited by ACEND. Graduates of an accredited program receive a Verification Statement, an official document that certifies successful completion of the bachelor's degree and the requirements of an ACEND accredited program.

Admission criteria are the following:

- BS in Nutrition and Dietetics, accredited by ACEND, with Verification Statement upon completion
- Minimum 3.00 Grade Point Average on a 4.00-point scale
- Three letters of recommendation, two from university professors
- Short essay (500 words) indicating how pursuing graduate studies will contribute to your development.
- Spanish and English proficiency
- Students for whom English is a second language must obtain a minimum score in TOEFL exam of 550 (paper-based) or 213 (computer-based). Exam must have been taken no more than five-years prior.

For approved Foreign Degrees: <https://www.cdrnet.org/RDNeeligibility>

- If the degree is an ACEND-accredited Foreign Dietitian Education (FDE) program and was issued a Verification Statement, the FDE Verification Statement must be presented (NOTE: the FDE degree has already been evaluated as equivalent to a U.S. degree by ACEND).

PATHWAY TWO

For students with a bachelor's degree in Nutrition and Dietetics. Must comply with UPR-Río Piedras Campus general admission criteria for graduate programs.

to obtain license specifies the following⁵: Bachelor degree awarded with major in nutrition or dietetics of an accredited higher education or college institutions by the Higher Education Council (known today as Board of Postsecondary Institutions) or by one of the regional organisms of national accreditation and have completed an internship in nutrition or dietetics in a hospital or accredited institution for such training, or in substitution of this internship, possess a master or doctor degree in nutrition or dietetics of a higher education or college institution recognized by the Higher Education Council or by one of the regional organisms of national accreditation. <https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/82-1972.pdf>

Admission criteria are the following:

- Bachelor's degree in Nutrition and Dietetics or equivalent from an authorized and accredited higher education institution in the US
- Undergraduate courses that constitute the Alternate Second major in Nutrition and Dietetics
- Must have approved with C or more undergraduate courses
- Minimum 3.00 Grade Point Average on a 4.00-point scale
- Minimum 3.00 Grade Point Average in science and math courses on a 4.00-point scale.
- Three letters of recommendation, two from university professors
- Short essay (500 words) indicating how pursuing graduate studies will contribute to your development
- Spanish and English proficiency
- Students for whom English is a second language must obtain a minimum score in TOEFL exam of 550 (paper-based) or 213 (computer-based). Exam must have been taken no more than five-years prior.

To be eligible and prior to submitting an admission application to the graduate program:

- The Program will determine if any additional coursework is needed to complete undergraduate requirements. A course-by-course evaluation is required by corresponding institutional academic departments.
- Conditioned admission:
 - If at the deadline for admission application to the graduate program the Alternate Second Major requirements are in progress, upon evaluation of an official transcript, the Program will determine eligibility for a conditioned admission to the graduate program.
 - Students with conditioned admission are allowed up to a maximum of 9 credits of required undergraduate courses.
 - Students with conditioned admission are allowed a maximum extension of time to the first semester of the graduate program.
 - During the allowed extension of time, the student must complete successfully all undergraduate requirements for official admission to the graduate program.
 - Students under conditioned admission who do not comply will all undergraduate requirements during the maximum extension of time of the first semester will be dismissed from the graduate program.

For approved Foreign Degrees: <https://www.cdrnet.org/RDNeeligibility>

- If the degree is an ACEND-accredited Foreign Dietitian Education (FDE) program and was issued a Verification Statement, the FDE Verification Statement must be presented (NOTE: the FDE degree has already been evaluated as equivalent to a U.S. degree by ACEND).
- If the degree is from outside the US, it is required to have the official transcript evaluated by an approved Foreign Degree Evaluation Agency.

<https://www.eatrightpro.org/acend/students-and-advancing-education/international-students/foreign-degree-evaluation-agencies>

- ✓ After receiving the evaluation report, contact the MSND-SEL program director to request a review of the official transcript and foreign degree evaluation report.
- ✓ The program will determine if any additional coursework is needed to complete program undergraduate requirements. A course-by-course evaluation is required by corresponding institutional academic departments.

PATHWAY THREE

For students who have completed an undergraduate degree in:

- ✓ **science other than Nutrition and Dietetics**
- ✓ **fields not related to science**

and need a Second Major in Nutrition and Dietetics. Must comply with UPR-Río Piedras Campus general admission criteria for graduate programs.

Admission criteria are the following:

- Bachelor's degree or equivalent from an authorized and accredited higher education institution in the US
- Undergraduate courses that constitute the Alternate Second major in Nutrition and Dietetics
- Must have approved with C or more undergraduate courses
- Minimum 3.00 Grade Point Average on a 4.00-point scale
- Minimum 3.00 Grade Point Average in science and math courses on a 4.00-point scale
- Three letters of recommendation, two from university professors
- Short essay (500 words) indicating how pursuing graduate studies will contribute to your development.
- Spanish and English proficiency
- Students for whom English is a second language must obtain a minimum score in TOEFL exam of 550 (paper-based) or 213 (computer-based). Exam must have been taken no more than five-years prior.

To be eligible and prior to submitting an admission application to the graduate program:

- Admission to the Alternate Second Major is required for a course-by-course evaluation by corresponding institutional academic departments.
- Also, if any additional coursework is needed to complete program undergraduate requirements.
- Conditioned admission:
 - If at the deadline for admission application to the graduate program the Alternate Second Major requirements are in progress, upon evaluation of an official transcript, the Program will determine eligibility for a conditioned admission to the graduate program.

- Students with conditioned admission are allowed up to a maximum of 9 credits of required undergraduate courses.
- Students with conditioned admission are allowed a maximum extension of time to the first semester of the graduate program.
- During the allowed extension of time, the student must complete successfully all undergraduate requirements for official admission to the graduate program.
- Students under conditioned admission who do not comply with all undergraduate requirements during the maximum extension of time of the first semester will be dismissed from the graduate program.

For approved Foreign Degrees: <https://www.cdrnet.org/RDNeeligibility>

- If the degree is from outside the US, it is required to have the official transcript evaluated by an approved Foreign Degree Evaluation Agency <https://www.eatrightpro.org/acend/students-and-advancing-education/international-students/foreign-degree-evaluation-agencies>
- After receiving the evaluation report, contact the MSND-SEL program director to request a review of the official transcript and foreign degree evaluation report.
- The Program will determine if any additional coursework is needed to complete undergraduate requirements. A course-by-course evaluation is required by corresponding institutional academic departments.

As established by the accrediting agency, the Graduate Future Education Model programs may allow admission through Pathway Three: students that completed their undergraduate degree in science other than Nutrition and Dietetics and in fields not related to science. As an admission criterion to the MSND-SEL, this students' population is required a set of undergraduate courses and prerequisites. Because the program is committed with the ACEND's master's-level graduate expectations, the MSND-SEL will admit students through this third pathway with prior approval of the *Second Major in Nutrition and Dietetics*.

An Alternate Second Major in Nutrition and Dietetics (41 credits of NUTR courses) has been established for students interested to apply to the MSND-SEL with bachelors' degrees other than an accredited BS in Nutrition and Dietetics, under the BS in Nutrition and Dietetics Program of the Río Piedras Campus, accredited by ACEND. Some Nutrition (NUTR) courses have prerequisites that must be approved previous to register these courses. Upon approval of the Alternate Second Major and compliance of all other admission criteria, students will be

admitted to the graduate program. The "Verification Statement" (VS), which certifies adherence with academic and ACEND's undergraduate requirements, will be deferred until satisfactory completion of the MSND-SEL program graduation requirements. For students who, during the course of the graduate program, opt not to continue studies toward the degree, in order to receive the VS, approval of all courses that constitute the regular Second Major in Nutrition and Dietetics (46 credits of NUTR courses) will be required.

Students admitted to the Alternate Second Major sit in the daytime, presential-regular programming of courses and sections offered for the BS in Nutrition and Dietetics. It is estimated that the student will take up to at least two years and a half to approve the Alternate Second Major requirements with concurrent or previous approval of science and math courses prerequisites. Once the candidate is admitted, an official evaluation of the academic record or official transcript will be performed by corresponding institutional academic departments. The evaluation of courses for equivalencies will determine requirements that need to be approved.

According to the Academic Change Proposal to the BS in Nutrition and Dietetics Program, submitted to comply with ACEND's requirements⁶, currently under consideration, an Alternate *Second Major in Nutrition and Dietetics for Students Interested in Admission to the MS in Nutrition and Dietetics with Supervised Experiential Learning* will be the following⁷:

⁶ **Executive Summary** -The purpose of the proposal is to implement curricular changes to support the continuous improvement of the Bachelor of Science (BS) in Nutrition and Dietetics offered by the College of Natural Sciences, Río Piedras Campus of the University of Puerto Rico (UPR-RPC). Significant curricular changes respond to recommendations presented in the Site Visit Report received on March 2019 from the Accreditation Council for Education in Nutrition and Dietetics (ACEND) (Appendix A). The specific recommendation states: "*The program must provide evidence that the program can realistically be completed in four years in order to base the program's materials and advertising on this timeframe*". (Page 11 of the report). Although the proposal is responding to accreditation recommendations, an analysis to redistribute courses, credits and contact hours to impact the time-to-degree of five or more years to four years was made. Also, a transitional curricular sequence was developed for students enrolled in the current sequence, ensuring course content and formative experiences.

⁷ New course code (In parenthesis current course code)

*Alternate Second Major in Nutrition and Dietetics for Students Interested in Admission to the MS in Nutrition and Dietetics with Supervised Experiential Learning			
Nutrition and Dietetics (Must be approved with C or higher)		Credits	Prerequisites
NUTR 4031	Food Science	3	CHEM 3001
NUTR 4040 [NUTR 4041+ NUTR 4045]	Principles of Human Nutrition [Human Nutrition I (3cr) + Applied Human Nutrition (1cr)]	3	CHEM 3001 BIOL I-II 3101-3102
NUTR 4050 [NUTR 4055 + NUTR 4068]	Introduction to Foodservice Systems [Food Purchasing for FSS (2cr) + Equipment and Design for FSS Facilities (2cr)]	3	NUTR 4031 or concurrent with NUTR 4031
NUTR 4075	Management for Foodservice Systems	3	NUTR 4050
NUTR 4076	Applied Concepts of Management for Foodservice Systems	2	NUTR 4075
NUTR 4086	Menu for Foodservice Systems	3	NUTR 4040, NUTR 4075 (Prerequisite NUTR 4050) and previous or concurrent BIOL 3705
NUTR 4158	Human Biochemistry	3	CHEM 3015, BIOL 3711-3712, NUTR 4040
NUTR 4159	Human Biochemistry Laboratory	1	CHEM 3015, BIOL 3711-3712, NUTR 4040, concurrent with NUTR 4158
NUTR 4160 [NUTR 4042]	Human Nutrition II [Human Nutrition II (3cr)]	4	NUTR 4158, NUTR 4159
NUTR 4161 [NUTR 4165]	Clinical Dietetics	4	NUTR 4158, NUTR 4159, concurrent with NUTR 4162 previous or concurrent with NUTR 4160
NUTR 4163 [NUTR 4166]	Advanced Clinical Dietetics	4	NUTR 4160, NUTR 4161, NUTR 4162
NUTR 4162 [NUTR 4169]	Applied Clinical Dietetics	1	Previous or concurrent with NUTR 4160 4 cr. and concurrent with NUTR 4161 Clinical Dietetics 4 cr.
NUTR 4170	Methods for Nutrition Education	2	NUTR 4031, NUTR 4040
NUTR 4180 [NUTR 4176]	Community Nutrition	3	NUTR 4170
NUTR 4198	Methods for Nutrition Research	2	NUTR 4040, MATE 3026
Total		41	
<p>* Upon approval of the Alternate Second Major in Nutrition and Dietetics and compliance with all other admission criteria, students will be admitted to the graduate program. The "Verification Statement" (VS), which certifies adherence with academic and ACEND's undergraduate requirements, will be deferred until satisfactory completion of the MSND-SEL program graduation requirements. Students who, during the course of the graduate program, opt not to continue studies toward the degree, in order to receive the VS, approval of all courses that constitute the regular Second Major in Nutrition and Dietetics (46 credits of NUTR courses) will be required.</p>			

Some NUTR courses have prerequisites to must be approved prior to register. These courses are the following:

Prerequisites of NUTR courses (Must be approved with C or higher)		Credits	Prerequisites
BIOL 3102	General Biology II	4	
BIOL 3101	General Biology I	4	CHEM 3001
BIOL 3711	Human Biology I	3	BIOL 3102
BIOL 3712	Human Biology II	3	BIOL 3711
BIOL 3705	Microbiology	4	BIOL 3101
CHEM 3001-3002	General Chemistry I y II	4-4	MATE 3171-3172
CHEM 3015	Organic Chemistry Compendium	4	CHEM 3002
MATH 3026	Introduction to Statistics with the Computer	3	MATE 3171-3172 or MATH 3018

SUGGESTED CURRICULAR SEQUENCE							
Alternate Second Major in Nutrition and Dietetics for Students Interested in Admission to the MS in Nutrition and Dietetics with Supervised Experiential Learning							
With Prerequisites of Science and Math Courses Approved							
FIRST YEAR				SECOND YEAR			
First Semester		Second Semester		First Semester		Second Semester	
Courses	Creds.	Courses	Creds.	Courses	Creds.	Courses	Creds.
NUTR 4031	3	NUTR 4050	3	NUTR 4161	4	NUTR 4086	3
NUTR 4040	3	NUTR 4170	2	NUTR 4162	1	NUTR 4076	2
		NUTR 4158	3	NUTR 4075	3	NUTR 4163	4
		NUTR 4159	1	NUTR 4160	4	NUTR 4180	3
		NUTR 4198	2				
Sub-total	6	Sub-total	11	Sub-total	12	Sub-total	12
TOTAL CREDITS for second major in Nutrition and Dietetics: 41							

SUGGESTED CURRICULAR SEQUENCE							
Second Major in Nutrition and Dietetics							
For students who opt not to continue studies toward the degree, in order to receive the VS, approval of all courses that constitute the Second Major in Nutrition and Dietetics will be required.							
With Prerequisites of Science and Math Courses Approved							
FIRST YEAR				SECOND YEAR			
First Semester		Second Semester		First Semester		Second Semester	
Courses	Creds.	Courses	Creds.	Courses	Creds.	Courses	Creds.
NUTR 4031	3	NUTR 4050	3	NUTR 4161	4	NUTR 4086	3
NUTR 4225	1	NUTR 4170	2	NUTR 4162	1	NUTR 4076	2
NUTR 4040	3	NUTR 4158	3	NUTR 4075	3	NUTR 4163	4
		NUTR 4159	1	NUTR 4160	4	NUTR 4501	1
		NUTR 4198	2	NUTR 4180	3	NUTR 4175	1
Sub-total	7	Sub-total	11	Sub-total	15	Sub-total	11
SUMMER				SUMMER			
				NUTR 4503	1		
				NUTR 4502	1		
TOTAL CREDITS for Second Major in Nutrition and Dietetics: 46 (5 additional credits than Alternate Sequence)							

XII. 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 master's 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 modality 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 No. 95 (2019-2020) Academic Senate.

A Verification Statement document awards a student's completion of all academic requirements established by the Accreditation Council for Education in Nutrition and Dietetics

(ACEND®), Future Graduate Accreditation Standards for Graduate Degree Programs. To receive a verification of completion of the program students must:

1. Demonstrate attainment of all Future Education Model entry-level competencies as documented in specific assessment method for each competency.
2. Complete the program as evidenced by the institution in a terminal degree on the official transcript.
3. Final GPA must be 3.0 or more for graduate studies [otherwise academic probation]
4. Perform in a professional and ethical manner.

After successful completion of the MSND-SEL program requirements, as certified by the Registrar's Office, all students will receive a Verification Statement (VS) granting eligibility to take the CDR credentialing exam for Dietitians Nutritionists (RDN).

Students who, in order to comply with program's admission requirements approved the Alternate Second Major and successfully completed the MSND-SEL, will receive the corresponding Verification Statement" (VS) which certifies adherence with academic and ACEND's undergraduate requirements. Those students that, during the course of the graduate program, opted not to continue studies toward the MSND-SEL degree, in order to receive the VS, approval of all courses that constitute the regular Second Major in Nutrition and Dietetics (46 credits of NUTR courses) will be required.

XIII. PROJECTED ENROLLMENT

Nation-wide labor statistics show that employment of dietitians and nutritionists is projected to grow 7 percent from 2021 to 2031, about as fast as the average for all occupations. About 5,600 openings for dietitians and nutritionists are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire. (US Bureau of Labor Statistics, Occupational Outlook Handbook, September 30, 2022)

<https://www.bls.gov/ooh/healthcare/dietitians-and-nutritionists.htm>

In the aforementioned context and the new entry level established for the Nutrition and Dietetics profession beginning January 1, 2024 (master degree and supervised practice), the MSND-SEL has an enrollment goal of 25 students. As an online-cohort program, to ensure cost self-sufficiency, a minimum enrollment of fourteen (14) students is needed each year. 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 15 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. However, in August of 2022, as a result of a new definition of an entry level dietitian that requires a master's degree and supervised practice hours to become Registered Dietitian, supervised practice programs in PR and a large majority in the US, now require a graduate degree for admission. This requirement eliminates the option for graduates from bachelor's degree programs to apply to supervised practice programs before pursuing a master's degree. Therefore, they must either apply for a graduate program before completing their supervised practice hours or apply to a program that provides both the supervised practice hours and coursework to complete both professional requirements.

Since the MSND provides a master's degree using competency-based education and the supervised practice hours, it is expected to have a demand of approximately 15 students from the bachelor's program each year. In addition, graduates from other undergraduate programs in the US can apply to the MSND-SEL at UPR to fulfill the professional requirements to become Registered Dietitians. As a demonstration program under ACEND, the MSND-SEL is recognized as an early adopter of the Future Education Model proposed by ACEND.

XIV. SYLLABI OF COURSES

Submission of syllabi is not required for this proposal. For descriptions of approved courses, refer to **Appendix G – Graduate Catalog**

XV. EDUCATIONAL METHODS

The Master of Science in Nutrition and Dietetics with Supervised Experiential Learning is a combined online-onsite program. Distance Education delivery of didactic courses in the professional curriculum will allow students to be physically separated from faculty and learning is facilitated synchronously or asynchronously through live or recorded media. The United States Department of Education requires that *“There must be regular and substantive interaction between students and instructors for a course to be considered distance education and not a correspondence course.”*

The Didactic Instruction Teaching approach relies on information being provided to students in a structured manner through a second-hand source such as a faculty, readings or other media rather than through demonstration, laboratory or other forms of experiential learning. Courses will include a combination of educational methods to ensure students meet required knowledge and competencies. Since the program will use competency-based education, educational methods will allow assessment of whether the student mastered each competency.

Learning activities are designed by faculty and preceptors to engage students in the learning and assessment process to demonstrate competencies. Among these, projects, assignments, case studies, cooperative learning or group activities, etc. 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.

The Supervised Experiential Learning approach to learning that relies on students obtaining knowledge and skills through direct experience usually outside of the classroom in real-world

settings, includes reflection and self-analysis, and provides opportunities for students to learn from their success and mistakes. A total of 720 hours will be provided by experiential learning as students will be assigned to various professional practice sites. The number of hours of experiential learning was determined by the time necessary to achieve the competencies set forth by ACEND's accreditation standards for graduate programs.

ACEND Standards for Future Education Model Programs integrates a supervised professional 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.

Supervised Experiential Learning

SEL in Clinical Nutrition (270 hrs.) Approximately 70% of the adult population in Puerto Rico and the United States is categorized as overweight or obese. This increases the risk of prolonged chronic illness such as cardiovascular disease, cancer, and diabetes, highlighting the need for well-prepared nutrition and dietetics professionals to treat and prevent further illness and increase the quality of life. A range of clinical experiential learning covering the life span and highlighting the major nutrition-related morbidities and mortalities will be covered. The rotation settings are hospitals and institutions that provide a wide variety of experiences from pediatrics to geriatrics, including chronic diseases such as cardiovascular, renal, cancer, diabetes, HIV/AIDS, as well as acute needs related to situations such as transplant, trauma and burns. Students will be supervised by knowledgeable preceptors with expertise in Medical Nutrition Therapy, many with advanced degrees and certifications in their specialty areas.

SEL Foodservice Management (270 hrs.) Foodservice management rotations will be planned to provide students with a variety of food service systems and management experiences. Students learn about food production and procurement, food service systems, menu planning, recipe development, employee education, sanitation, safety, personnel management, catering and a number of other administrative experiences. They may participate in performance

improvement, personnel management, and interdisciplinary leadership meetings. Through projects, meetings, and role-play, students gain an understanding of skills needed in upper management and leadership. In addition, with the increasingly regulated field of hospital foodservice, students get hands-on experience with hospital foodservice systems, including the accreditation process, quality evaluation, as well as financial accountability. Students will also experience firsthand the role of the school foodservice Nutritionist and Dietitians to implement healthy lifestyle menus and education. During the school foodservice rotation, the student will be exposed to food service operations and become familiar with the Federal School Breakfast and Lunch Program Regulations.

SEL Community Nutrition (180 hrs.) The community nutrition rotations will provide students with an understanding of the role of the nutritionist/dietitian in a variety of agencies and programs in the local community. Experiences for students include outpatient nutrition clinics, Head Start Program, SNAP Program, Food Bank, and Women, Infants, and Children (WIC) program. Students will provide individual nutrition counseling, teach group nutrition education classes on various topics including obesity, breast feeding, healthy nutrition and diabetes management, organize health promotion events, and participate in a variety of community health and wellness projects. Additionally, nutrition research in the community is included to demonstrate the Nutritionists and Dietitians role in investigation and program evaluation.

XVI. 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
Colón Morales, Edgardo	Ph. D, Biology with Emphasis in Biochemistry with Molecular Biology	Assistant Professor	Contract	UPR-Río Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	2	Biology courses; Human Biochemistry and Laboratory (undergraduate requirements)	Auxiliar to Assistant Dean of Academic Affairs, College of Natural Sciences
Correa Matos, Nancy	PhD, Nutritional Sciences, University of Illinois, 2006	Associate Professor	FT/T	UPR-Río Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	6	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-Río Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	44	Ethics and Professionalism, Supervised Practice in Foodservice management, Foodservice Management	Associate Academic Dean of Graduate Studies
Mir Franqui, Celia	EdD, University of Central Florida, 1990	Professor	FT/T	UPR-Río Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	46	Global Nutrition, Ethics and Professionalism, Nutrition Education and Counseling	n/a
Pinto López, Elsa	PhD, Florida International University, 2007	Professor	FT/T	UPR-Río Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	13	Applied Nutrition Research, Nutrition Education and Counseling, Ethics and Professionalism, Advanced Concepts in Nutrition	Didactic Program in Dietetics Director, Learning Assessment Coordinator, Academic Advisor

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
Rivera Sánchez, Sasha	PhDc, Universidad Autónoma de Barcelona	Assistant Professor	FT/TT	UPR-Río Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	18	Foodservice Management, Ethics and Professionalism, Supervised Practice in Foodservice	Research
Toro Enríquez, Brenda	PhD, Kansas State University, 2005	Professor	FT/T	UPR-Río Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	20	Foodservice Management, Supervised Practice in Foodservice, Ethics and Professionalism, Advanced Concepts in Nutrition	Director, Nutrition and Dietetics Program
Alicia Díaz Boulon	EdD, Inter American University, 2018	Associate Professor	FT/T	UPR- Medical Sciences Campus, College of Health Professions	15	Supervised Practice in Foodservice Management	Director, Dietetic Internship Program
Carmen M. Pérez	DrPH, University of Puerto Rico, Medical Science Campus, 2017	Contract	Contract	UPR-Río Piedras Campus, College of Natural Sciences, Nutrition and Dietetics Program	10	Global Nutrition, Advanced Concepts in Nutrition, Ethics and Professionalism	Coordinator DPA, Student Learning Assessment
María Egleé Pérez	PhD, Universidad Central de Venezuela, 1994	Professor	FT/T	UPR-Río Piedras Campus, College of Natural Sciences, Math Department	18	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 these duties have been performed as additional compensation on top of the regular load. In addition, one faculty member serves in institutional-wide assessment and accreditation endeavors and two professors are responsible for external-funded projects. At least two additional tenure track positions and one non-tenured position are needed to address the graduate program needs since the graduate standards of accreditation also require a director of the program.

B. Faculty Development

To practice the profession in Puerto Rico, all licensed Nutritionists and Dietitians (LND) must complete 36 hours of continuing education every three years as established by law. In addition, to maintain the Registered Dietitian Nutritionist credential (RDN), completion of 75 hours every five years is required. Thus, professors of the MSND-SEL will continue to participate of

continuing education requirements and, 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 Puerto Rico* and the Puerto Rico affiliate of the Academy of Nutrition and Dietetics.

XVII. PROGRAM ADMINISTRATION

The Nutrition and Dietetics Program, under the College of Natural Sciences, Río Piedras Campus, currently operates with a faculty member assigned as a full-time Director and one full-time administrative assistant. A Didactic Program in Dietetics Director (undergraduate) is a faculty member that dedicates 6 credits to the roles and responsibilities required by the accrediting agency. (Figure 2)

The MSND-SEL also has one designated Program Director who has primary responsibility for the program and communication with ACEND (Required Element 1.5). As established, *“The program director must have the authority, responsibility and sufficient time allocated to manage the program, and provide effective leadership for the program, the program faculty, and the students. The program director may have other responsibilities that do not compromise the ability to manage the program.”* 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. (Figure 2)

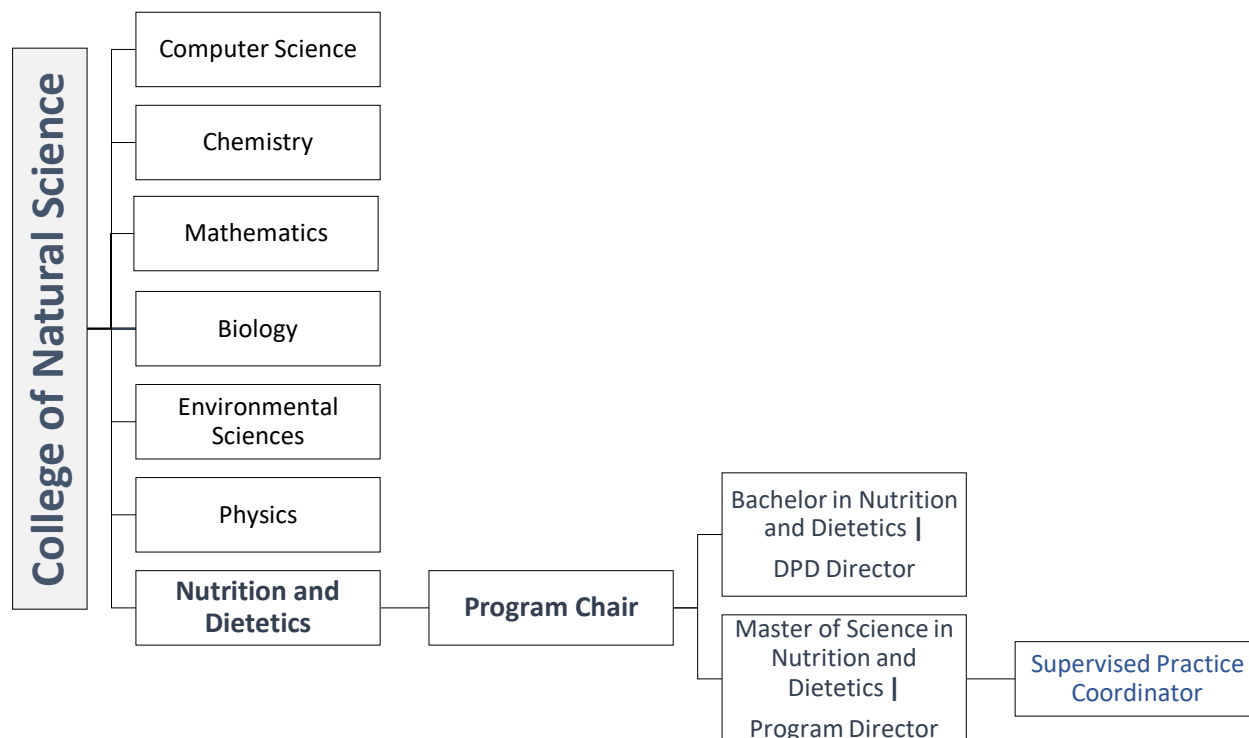
In compliance, the MSND-SEL Director dedicates 50% of the time to accreditation-related activities, equivalent to six (6) credits. Following institutional policies, full-time faculty must undertake a 12-credit academic load. Therefore, the MSND-SEL Director may also teach graduate or undergraduate courses and be responsible for other academic tasks to complete

the 12-credit academic load. Current MSND-SEL Director, Dr. Nivia A. Fernández Hernández, holds an accredited BS in Nutrition and Dietetics, a master degree in medical sciences and a doctorate degree in education with gerontology as the area of emphasis, a nutrition related field. Doctor Fernández-Hernández is credentialed as a Registered Dietitian Nutritionist as well as a Licensed Nutritionist and Dietitian in Puerto Rico.

The MSND-SEL Director has the following responsibilities (Required Element 1.5, FEM Standards 2022):

1. Provision or delegation of responsibilities to assure year-round coverage of director responsibilities in the absence of the director or in cases where the director's full-time appointment does not cover all 12 months. In programs where the program director assigns some responsibilities to other individuals, the director must ensure that all program director responsibilities are accomplished throughout the year.
2. Development of policies and procedures for effectively managing all components of the program and to ensure fair, equitable and considerate treatment of prospective and enrolled students (such as program admission, retention and completion policies).
3. Student recruitment, advisement, evaluation and counseling.
4. Maintenance of program accreditation including:
 - a. Timely submission of fees, reports, and requests for major program changes;
 - b. Maintenance of the program's student records, including student advising plans, supervised experiential learning hours and verification statements;
 - c. Maintenance of complaints about the program received from students or others, including disposition of the complaint;
 - d. On-going review of program's curriculum to meet the accreditation standards;
 - e. Facilitation of processes for continuous program evaluation and student competency assessment;
 - f. Communication and coordination with program faculty, preceptors and others involved with the program and its students;
 - g. Timely submission of required documentation supporting the graduate's eligibility for a Commission on Dietetic Registration credentialing exam.

Figure 2. Administrative Structure of the Nutrition and Dietetics Program, College of Natural Sciences, Río Piedras Campus (UPR)



XVIII. EDUCATIONAL RESOURCES

The MSND-SEL educational resources are described below.

Library Staffing. There are seven librarians, two of them with MIS and studying for a EdD in Education, there is a secretary and a coordinator for student services in the College of Natural Sciences. The facilities of the College Library are 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.

Bibliography. The bibliography collection includes printed and electronic volumes and various information resources in the fields of biology, physics, chemistry, math, environmental science, and computer science. It also contains two hundred fifty-six (256) active subscriptions to professional journals, twenty-nine (29) printed journals and thirty-two (32) subscriptions to specialized indexes in the disciplines of natural sciences in 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 – Onsite component

SEL in Clinical Nutrition (270 hrs.)

Potential sites include the following:

- Adult University District Hospital-Medical Center
- Encompass Health Center
- Cardiovascular Center of Puerto Rico and the Caribbean
- Atlantis Health Care/ Fresenius Kidney Care
- Trauma Center at Río Piedras Medical Center
- Auxilio Mutuo Hospital – Transplant Unit
- Psychiatric Hospital (includes Alzheimer’s Disease)
- Comprehensive Cancer Center
- Industrial Hospital, Puerto Rico Medical Center – Burn Unit
- Pediatric University District Hospital
- San Jorge Hospital OBGYN Unit / Women Health
- Menonita Hospital - Bariatric Surgery
- Ararat Center, HIV Unit

SEL Foodservice Management (270 hrs.)

Potential sites include the following:

- Menonita Hospital, Cayey PR

- Auxilio Mutuo Hospital
- San Jorge Hospital
- School Food Authority, Department of Education
- Bella Vista Hospital

SEL Community Nutrition (180 hrs.)

Potential sites include the following:

- WIC Headquarters
- PR Head Start State Collaboration Office
- AM Inc. Healthy Path Markets
- Puerto Rico Food and Nutrition Commission
- International Medical Corps, nonprofit organization Puerto Rico office
- Entrepreneurship - *Buen Provecho* Nutrition
- Albergue Olímpico of Puerto Rico, Center for Sports Health and Exercise Sciences

XIX. 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 undergraduate 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 the academic advisor at least once a semester.

Student recruitment, advisement, evaluation and counseling. The MSND-SEL Director will coordinate orientations for Didactic Program in Dietetics (DPD) students and will distribute program information among other accredited DPD's. Student advising may occur at various levels, including academic advising offered by MSND-SEL Director and SEL Coordinator. Competency tracking using the institutional Learning Management System (LMS) Moodle© will be an integral part of advisement and evaluation to identify students that may not be achieving competencies as expected. Students will also be advised on graduate opportunities and collaborations with other colleges and institutions that may have a partnership with the UPR-

RP. The MSND-SEL Director will coordinate group orientations and one-on-one advising will be offered as requested or needed by students. It is the responsibility of the MSND-SLE Director to monitor the progress of cohorts' admitted students, defined by the year of entry to the graduate program.

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

Academic Administrative Technology Division: <https://dtaa.uprrp.edu/>

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

Academic Calendar: <https://www.uprrp.edu/oficina-registrador/calendarios-academicos/>

Departamento de Consejería para el Desarrollo Estudiantil (DCODE):

<https://estudiantes.uprrp.edu/departamento-de-consejeria-para-el-desarrollo-estudiantil/>

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

Oficina de Servicios a Estudiantes con Impedimentos: <https://estudiantes.uprrp.edu/osei/>

CITec / Library and Tutoring Services/College of Natural Sciences Library:

<https://www.upr.edu/biblioteca-uprrp-cn/>

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

Privacy of Academic Files: https://www.uprrp.edu/wp-content/uploads/2019/10/taller_buckley2006.pdf

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:

- 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).
- 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; <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:

- *Journal 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:

- 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 dietetics

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- careers and provide access to education. For more information visit: <https://www.eatrightfoundation.org/about>
- 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>

XX. BUDGET

The Significant Change Proposal to the Master of Science in Nutrition and Dietetics with Supervised Experiential Learning at the Nutrition and Dietetics Program, College of Natural Sciences, has no budget impact since changes are only on Admission Criteria and corresponding revision of the Institutional Graduate Catalog.

The budget plan for the MSND-SEL submitted for initial program approval identified 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, facilitates 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 Budget and Planning, the operation of the program relies on full time contracts and maintaining the positions of two professors that retired in December 2020.

XXI. ASSESSMENT AND EVALUATION PLANS

A. Program Evaluation

Program's evaluation and improvement plans required by ACEND describe program's goals and objectives and the data collection procedures to measure if these are achieved.

(Appendices B & C).

ACEND'S ACCREDITATION STANDARD 3: Program Evaluation and Improvement
The program must continuously evaluate the achievement of its mission, goals and objectives. The program must have an evaluation plan, use the plan to collect data, improve the program based on the findings and update the plan accordingly.

Program Evaluation Plan (PEP). The Plan will allow for the analysis and use of data by faculty and the administration to make decisions about improvements in a program. This evaluation compares the intended results (program objectives) with the actual results (program outcomes). For each program goal, there are ACEND's and program specific objectives. To determine if these are achieved, actual outcome data, qualitative and/or quantitative will be collected from groups/sources, both internal and external stakeholders (graduates, administrators, faculty, preceptors, employers, practitioners, faculty from other disciplines and advisory committee), including questionnaires and online surveys such as the Exit Survey, Graduate's survey, Preceptor's and Employer's survey. These will all be administered online. Graduation and program completion rates will be collected by the Institutional Research & Assessment Division (DIIA, acronym by its Spanish name), and the Registrar's Office. Graduates' performance in the CDR credentialing exam will be obtained from the reports sent by Pearson Vue and direct contact with graduates that voluntarily communicate with the program to inform of their performance. Local licensure pass rates are obtained from the Puerto Rico Board of Examiners for Nutritionists and Dietitians.

The program will evaluate itself based on data on actual program outcomes collected according to the PEP, summarized and analyzed by comparing actual achievements with

objectives, to evaluate the extent to which goals and objectives are being achieved.

Accordingly, program changes will be made to improve outcomes for any objectives that do not meet the program-specified or ACEND-required target.

Program Improvement Plan (PIP). The program evaluation process established will demonstrate if the program is operating in the interest of students and the public. Results of the program evaluation process will allow to identify strengths and areas for improvement relative to components of the Program Improvement Plan (policies, procedures, curriculum, teaching methods, program length, faculty, preceptors, resources). Short- and long-term strategies will be developed and actions to be taken to maintain program strengths and address areas for improvement identified through the evaluation process.

Transformative actions or data-driven academic decisions will be incorporated as part of program curriculum and course syllabi review to improve outcomes for any objective that do not meet the program-specified or ACEND-required target measure; also address specific areas detected that need improvement. Policies and procedures changes will be recommended, as needed. Results of the PEP will be shared with external stakeholders during the Advisory Committee meetings every two years. The Program Improvement Plan (PIP) will be revisited and updated accordingly.

B. ACEND's Competencies Assessment

STANDARD 5: Competency Assessment and Curriculum Improvement

The program must continuously assess achievement of competencies. The program must have a written assessment plan and use the plan to collect and analyze data. The results of the assessment must be used to evaluate and improve the curriculum to enhance the quality of education provided.

Competence Assessment Plan. Upon completing the Master in Science in Nutrition and Dietetics with Supervised Experiential Learning, graduates will be able to demonstrate achievement of the 37 competencies and 219 performance indicators required by ACEND's

Standards for Future Education Model Graduate Degree Programs. Among these, there are 16 Enhanced Competencies for Graduate Programs (Appendix E) that increases the scope of practice compared to what is currently being taught or practiced.

C. Institutional Student Learning Assessment

Institutional Student Learning Assessment. In addition, MSND-SEL graduates must demonstrate achievement of the learning domains set forth by the institution's office of learning assessment encompassed in the Division of Institutional Research and Assessment (Certification 104, Academic Year 2016-2017, Academic Senate). The Institution's Student Learning Assessment Plan for the MSND-SEL was combined to measure the ACEND'S 37 competencies (course embedded) required as well as the six learning domains for graduate programs set forth by the University. **Table 7** illustrates the three-year learning assessment plan to measure the institution's learning domains and how these are aligned to at least one specific ACEND competency.

Table 7. Institution's Student Learning Assessment Plan for the MS in Nutrition and Dietetics with Supervised Experiential Learning

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
1. Information Competencies	Demonstrates computer skills and uses nutrition informatics in the decision-making process. (1.13)	NUTR 6002 Research Methods in Nutrition and Dietetics NUTR 6110 Research project	Research project
2. Effective Communication	Uses effective communication, collaboration and advocacy skills. (7.2)	NUTR 6004 Ethics and Professionalism NUTR 6110 Research project	Case Study or project
3. Content of the discipline	Applies knowledge of nutritional health promotion and disease prevention for	NUTR 6111 Global Nutrition	Design of a nutrition education session in the community for a target population.

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
	individuals, groups and populations. (1.15)	NUTR 6115 Community Nutrition Supervised Experiential Learning	
4. Research and creation	Applies scientific methods utilizing ethical research practices when reviewing, evaluating and conducting research. (6.2)	NUTR 6002 Research Methods in Nutrition and Dietetics NUTR 6110 Research project	Research project
5. Critical thinking	Incorporates critical thinking skills in practice. (6.1)	NUTR 6112 Foodservice management NUTR 6116 Foodservice management supervised experiential learning	Conduct and analyze a plate waste study and food cost analysis in a foodservice operation.
6. Social responsibility	Assumes professional responsibilities to provide safe, ethical and effective nutrition services. (7.1)	NUTR 6004 Ethics and Professionalism NUTR 6014 Clinical Nutrition supervised experiential learning	Development of a mentoring program, Discussion of case studies of ethical scenarios in professional practice.

The institutional 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.

XXII. CATALOG AND DISSEMINATION

The MSND-SEL program is committed to provide current, accurate and consistent information to prospective students and the public. Complete program information will be

updated and can be found in the website, graduate handbook, graduate catalog, brochure, etc. (ACEND's Required Element 7.1).

Appendix G presents the revised institutional Graduate Catalog, with changes proposed to admission criteria. An informative brochure of campus graduate programs will be also be revised, accordingly. Prospective graduate students and public can reach current program information from the MSND-SEL, Deanship for Graduate Studies and Research, and College of Natural Sciences webpages at:

<https://natsci.uprrp.edu/nutricion/prospective-msnd-students/> - Program webpage

https://natsci.uprrp.edu/nutricion/wp-content/uploads/sites/8/2023/05/Graduate-Student-Handbook_revised-16-mayo-2023_NFH.pdf - Graduate Student Handbook

<https://graduados.uprrp.edu/wp-content/uploads/2023/05/Requisitos-de-Maestria-en-Nutricion-y-Dietetica-rev-25-mayo-2023.docx.pdf> - Graduate Studies, Admission Information

<https://natsci.uprrp.edu/maestrias-y-doctorados/> - College of Natural Sciences webpage

On June 29, 2022, Dr. Luis A. Ferrao, Chancellor of the Río Piedras Campus informed the university community about the new ACEND's accredited master degree program to be offered by the College of Natural Sciences. rectoria@cartero.uprrp.edu Sent: Wednesday, June 29, 2022 3:29 PM

Dissemination of the program's features, benefits and advantages for those that want to become Registered Dietitian Nutritionist has been published in collaboration with the *Colegio de Nutricionistas y Dietistas de Puerto Rico* and the Puerto Rico Affiliated Academy of Nutrition and Dietetics. Additional advertising venues include UPR Online webpage, UPR Río Piedras Campus Cartero and communications with graduates of the existing undergraduate Nutrition and Dietetics Program and dietetic interns and preceptors.

<http://natsci.uprrp.edu/nutricion/> - Promotional materials

<https://mail.google.com/mail/u/1/#search/maestria/FMfcgzGrcXtmFDmtKzZFvJWTVKwqBljq> - Colegio de Nutricionistas y Dietistas de Puerto Rico

eatrightpr@gmail.com - Academia de Nutrición y Dietética - Sent: Monday, February 13, 2023 10:07:53 AM

Subject: PROMOVER - ABIERTA LA SOLICITUD - NUEVA MAESTRIA EN NUTRICION Y DIETETICA CON EXPERIENCIA DE APRENDIZAJE SUPERVISADA, A DISTANCIA

<https://adistancia.upr.edu/ead/> - University of Puerto Rico Online webpage

<https://adistancia.upr.edu/grados-academicos/maestrias/> - University of Puerto Rico Online webpage

https://www.facebook.com/100064371802225/posts/pfbid0yy9B17kECrSzswsSjNvWg_gWi1B98JrVaSAN3HYA5UeUM6UUMTdb6c4i8YxqeZFnr/?sfnsn=mo&mibextid=K8Wfd2 - Facebook – University of Puerto Rico Online – August 23, 2023

Proposed changes to the MSND-SEL admission criteria will be widely disseminated through all webpages (program, institutional and professional), promotional materials, and orientation meetings with prospective students and internship preceptors, among others.

XXIII. DEVELOPMENT PLAN

Following the Program Evaluation Plan in **Appendix B**, aimed to measure achievement of program goals and objectives, the following narrative describes projected enrollment, significant challenges expected, expected graduation rate and the detailed process towards maintaining Candidacy for Accreditation status. A summary of this plan is presented in **Table 8**, the Development Plan for the graduate program to be reviewed annually by the Director of the Nutrition and Dietetics Program and the MSND-SEL 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 Credentialing Exam are potential candidates to be admitted to the Program as well.

Significant challenges

The MSND-SEL 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 need to 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 ensure that 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.

Expected graduation rates

The MSND-SEL is designed to be completed in two years and a summer for a full-time student. One of the program objectives 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. On March 19, 2021, the Nutrition and Dietetics Program, under the College of Natural Sciences at the Río Piedras Campus (RPC) of the University of Puerto Rico (UPR) received ACEND's approval and is part of the Fifth Demonstration Cohort of Future Education Model Accreditation Standards Graduate Degree Programs (GP-FEM) and applying competency-based education. On June 24, 2022, ACEND's Chair notified the Board's

action to the proposed GP-Graduate Program at the University of Puerto Rico, granting Candidacy for Accreditation for a four-year accreditation term. ACEND recognized program's compliance with ACEND Accreditation Standards.

Faculty and staff benefit from receiving training and workshops offered by ACEND consultants and CBE experts to implement the education model. These trainings also benefit students in the undergraduate degree as professors become skilled with this educational model.

The MSND-SEL 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 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 nutrition and dietetics professional.

Program courses

A total of 15 courses (12 didactic-online and 3 SEL-onsite), reviewed as part of ACEND's Self-Study and Onsite Visit, have been created and approved by the Vice Presidency for Academic Affairs and Research (UPR). Online courses have been developed by MSND-SEL faculty with the expert and technological support of the Division of Continuing Education and Professional Studies, Río Piedras Campus (UPR). At the time of this proposal, an elective course is under faculty review process.

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 Congress
- Annual Meeting of the *Colegio de Nutricionistas y Dietistas de Puerto Rico*

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

Table 8. 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-SEL 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 evaluated annually	Number of collaboration agreements	MSND-SEL 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 ACEND's Annual Report	MSDN-SEL 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-SEL 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-SEL Program Director

XVIII. ADDITIONAL INFORMATION

Not applicable.

XIX. REFERENCES

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Links:

Future Education Model Standards and Templates <https://www.eatrightpro.org/acend/accreditation-standards-fees-and-policies/future-education-model-standards-and-templates>

FAQs About Types of ACEND Accredited Program <https://www.eatrightpro.org/acend/accreditation-process/frequently-asked-questions/faqs-about-types-of-acend-accredited-programs>

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

ACEND Accreditation Standards for Nutrition and Dietetics Graduate Programs (GP) (Future Education Model), 2022 <https://www.eatrightpro.org/-/media/files/eatrightpro/acend/accreditation-standards-fees-and-policies/future-education-model-standard-and-templates-v2022/fem-graduate-reformat.pdf?rev=c48694162c6148c7a0a162707027fade&hash=4420CD68FB07A07E11DAC2027AAAC03E>

Academy of Nutrition and Dietetics. Future Education Model Graduate Degree Competencies and Performance Indicators. <https://www.tc.columbia.edu/media/media-library-2018/departments/hbs/nutrition/ACEND-Competencies--Performance-Indicators.pdf>

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. APPENDICES

Appendix A – ACEND’s Future Education Model Graduate Degree Competencies and Performance Indicators

<https://www.tc.columbia.edu/media/media-library-2018/departments/hbs/nutrition/ACEND-Competencies--Performance-Indicators.pdf>

Appendix B. Program Evaluation Plan

Program Evaluation Plan (FEM Standards 2019, Required Element 3.1, 3.2)
Date of Self-Study Report – December 7th, 2021

History of Annual Review		
Date of creation	Individuals/Groups who participated in the PEP creation	Results of the Review (i.e. changes that were made, if any)
August -2021	DPD Director Nutrition and Dietetics Program Chair Curriculum and Assessment Committee (all faculty)	Curriculum map prepared for the CBE workshops was reviewed by faculty after each competency was assigned across all courses.

Mission of the Graduate Program

The mission of the Future Education Model - Master of Science in Nutrition and Dietetics with supervised learning experience is to provide the intellectual and humanistic formation in diverse areas of scientific inquiry and be eligible to become Registered Dietitian Nutritionists qualified to offer educational, administrative and clinical services and the management of foodservice systems.

Program Goals, Objectives and Actual Outcomes (Revised FEM Standards 2022)

<p>Goal 1. Prepare well-qualified graduates to become Registered Dietitian Nutritionists and contribute to the overall well-being of the population in a variety of settings or related fields.</p> <p>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.</p>						
A) ACEND-Required Objectives (Programs must insert a target measure in the objectives when one is not identified by ACEND)	B) State the goal the objective measures (1 or 2)	C) Data Needed for Evaluation and Data Source	D) Evaluation Method(s) for Collected Data	E) Individual(s) Responsible for Ensuring Data Is Collected	F) Timeframe for Collecting Data (When is data collected?)	G) Actual Outcomes
<p><u>Objective 1.1 – Program completion</u> <u>At least 80% of program graduates complete program requirements within 3 years (150% of the program length).</u></p>	1	<p>Graduation and program completion rates</p> <ul style="list-style-type: none"> -Institutional Research & Assessment Division -Registrar's Office 	Quantify the number of years from initial admission to program completion.	Program Director and Assistant	Annually	Not yet available
<p><u>Objective 1.2 - Graduate Performance on Registration Exam</u> <u>At least 70% of program graduates take the CDR credentialing exam Dietitian Nutritionists within 12 months of program completion.</u></p>	1	<p>CDR credentialing exam test takers within 12 months of program completion</p> <ul style="list-style-type: none"> -Pearson Vue reports 	Reports are sent to the Program Director.	Program Director and Assistant	Annually	Not yet available
<p><u>Objective 1.3 - Graduate Performance on Registration Exam</u></p>	1	CDR credentialing	Reports are sent to the Program Director.	Program Director and Assistant	Annually	Not yet available

Goal 1. Prepare well-qualified graduates to become Registered Dietitian Nutritionists and contribute to the overall well-being of the population in a variety of settings or related fields. 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.						
A) ACEND-Required Objectives (Programs must insert a target measure in the objectives when one is not identified by ACEND)	B) State the goal the objective measures (1 or 2)	C) Data Needed for Evaluation and Data Source	D) Evaluation Method(s) for Collected Data	E) Individual(s) Responsible for Ensuring Data Is Collected	F) Timeframe for Collecting Data (When is data collected?)	G) Actual Outcomes
<u>The program's one-year pass rate (graduates who pass the registration exam within one year of first attempt) on the CDR credentialing exam for Dietitian Nutritionist is at least 80%.</u>		exam test takers One-year pass rate -Pearson Vue reports				
<u>Objective 1.5 – Graduate Employment</u> <u>Of graduates who seek employment, at least 75% are employed in Nutrition and Dietetics or related fields within 12 months of graduation.</u>	1	Online Graduate's Survey -Program source	Analysis of survey data	Program Director and Assistant	Annually	Not yet available
<u>Objective 2.4 – Employer satisfaction</u> <u>At least 80% of the employers indicate they consider the graduates preparation for entry level is satisfactory or above.</u>	2	Online Employer Satisfaction survey -Program source	Data analysis of survey data	Program Director and Assistant	Annually	Not yet available

B) Program Specific Objectives (RE 2.3.a)	State the Goal the Objective Measures (1 or 2)	C) Data Needed for Evaluation and Data Source	D) Evaluation Method(s) for Collecting Data	E) Individual(s) Responsible for Ensuring Data Is Collected	F) Timeframe for Collecting Data	G) Actual Outcomes
Objective 1.4 The Program's one-year pass rate on the local licensure exam for Dietitian Nutritionists is at least 80%.	1	Reports from the Puerto Rico Board of Nutritionist and Dietitians	Reports are sent to the Program Director.	Program Director and Assistant	Annually	Not yet available
Objective 2.1 At least 80% of graduates who answer the Graduate's Survey will rate the overall preparation in Nutrition and Dietetics as satisfactory or above.	2	Online Exit Survey Online Graduate's Survey -Program source	Analysis of survey data	Program Director and Assistant	Every two years	Not yet available
Objective 2.2 – At least 80% of graduates who complete the requirements for becoming Registered Dietitian Nutritionists indicate they work effectively with culturally diverse populations in a variety of settings.	2	Online Graduate's survey -Program source	Data analysis of survey data	Program Director and Assistant	Every two years	Not yet available
Objective 2.3 – At least 80% of the employers of graduates indicate their Dietitians Nutritionists participate in research to advance Nutrition, Dietetics or related field when required.	2	Online Employer Satisfaction Survey -Program source	Data analysis of survey data	Program Director and Assistant	Every two years	Not yet available

Appendix C. Program Improvement Plan

Program Improvement Plan (Required Element 3.3)

Date of Self-Study Report – December 7th, 2021

POLICIES AND PROCEDURES				
Identify strengths and/or areas of improvement resulting from the program evaluation process	How the program identified this strength or area of improvement	Short- or long-term strategy to maintain strength or address area of improvement	Specific timeline for implementation of the action steps	Results or data based on steps taken to date
Strength: Have a well-developed admission criterion that will help to admit high-level students for success in the program and to become Registered Dietitian Nutritionists	Program comply with institutional admission policies established for graduate programs that require, upon application, a Cumulative Grade Point Average equal or greater than 3.0. The first two years of admission to the Program, will require applicants to have an undergraduate degree in Nutrition and Dietetics. Specific criteria are established for the following admission pathways: Students with the BS in Nutrition and Dietetics; Students with a bachelor's degree in science other than Nutrition and Dietetics; and Students with a bachelor's degree in fields not related to science.	Monitor admission, retention, program completion and graduation pass rates compared to program criteria established. Outcome data will be analyzed to determine criteria effectiveness or for data-driven decisions related to admission policies.	Implementation of Admission Criteria for Cohort 2023 demonstrated confusion and interpretations. To comply with ACEND's Standard 7, a Proposal for Significant Change to the MSND-SEL program (Admission Criteria and Graduate Catalog), was submitted to institutional	Proposal was approved during Joint Meeting, Academic Affairs and Graduate Board of the College of Natural Sciences, Río Piedras Campus, UPR (October 4, 2023)

			evaluation governance bodies.	
Strength: The program has developed policies and procedures for tracking individual student's demonstration of performance indicators/competencies. Formative and summative data, collected and analyzed for each student will allow early detection of academic difficulty in order to implement appropriate intervention or remedial action.	Competency-based model establishes competencies and indicators to be tracked and monitored across didactic and SEL courses.	The program faculty and preceptors will implement the tracking system to assess individual student's performance indicators/competencies based on data collected from the program's assessment plan.	Twice a year Since program implementation	Not yet available
Strength: The program has established an integrated learning assessment system - to comply with UPR-RP and ACEND 's requirements - to collect, analyze and report to stakeholders, annual formative and summative assessment data of student performance and progress.	The BS Nutrition and Dietetic Program has a system in place. The MSND-SEL will be incorporated into this system to obtain Institutional, and program specific data for data-driven decisions to improve the program and support student success.	The learning assessment plan for both the DPD and MSND-SEL will be submitted at the beginning of the first semester and to faculty and the Institutional Research and Learning Assessment Division. An annual report will be submitted and discussed among program faculty and the data entered in the Online Learning Assessment System/platform (OLAS)	Prior to program's implementation.	Not yet available
Anticipated challenge: The OLAS system, where learning assessment data is entered does not support assessment data that is collected without a rubric. Some	The DPD program has been using the OLAS system to comply with institutional learning assessment and has incorporated part of the learning assessment of knowledge	During the first two years...	Twice a year	Not yet available

of the data used to report the learning assessment will be analyzed and reported separately.	requirements. The DPD and FG-MSND will work to ensure data collected to assess learning is aggregated for both programs and report at the end of the academic year.			
CURRICULUM				
Identify strengths and/or areas of improvement resulting from the program evaluation process	How the program identified this strength or area of improvement	Short- or long-term strategy to maintain strength or address area of improvement	Specific timeline for implementation of the action steps	Results or data based on steps taken to date
Strength (St 4): Didactic and SEL courses are organized, sequenced, and integrated in a manner that enables students to progress from introductory to a more advanced level.	All faculty has been involved in the development the program's curricular map.	The Curriculum and Assessment Committee will periodically evaluate the curricular map and the FG Competency Assessment table utilizing student's performance data obtained from the tracking process. Short- and long-term action strategies will be implemented to maintain program strengths and address program components that need improvement.	Annual	Not yet available.
Strength (St 6): A structured orientation and training will be provided to faculty and preceptors related to mission, goals, objectives and educational philosophy of the program and	The program must provide continuous training to faculty and preceptors according to changes in ACEND's accreditation standards for graduate degree	Identify training needs. Maintain updated the professional development plan to include activities to address needs and interests.	Second semester of the first year of program implementation;	Not yet available.

required competencies, based on program evaluation, input from stakeholders and changes in the ACEND Standards and required competencies.	programs and FEM best practices and required competencies.		from there on, biannual.	
Strength (St 5): The program implements a plan for assessment of competencies and the process for tracking individual student's demonstration of performance indicators/competencies throughout didactic and SEL components of the program.	Competency-based model establishes competencies and indicators to be data-monitored across didactic and SEL courses, to ensure student's demonstration of required level of performance.	The program faculty and preceptors will implement the student's performance tracking system to allow early detection of academic difficulty in order to implement appropriate intervention or remedial action. Also, results of the program evaluation process will be used to identify strengths and areas for improvement of the various components of the program (policies, procedures, curriculum, teaching methods, program length, faculty, preceptors, resources). Short- and long-term action strategies will be implemented to maintain program strengths and address program components that need improvement.	Since program implementation	Not yet available

Anticipated challenge: Training to preceptors with regards to the program's goals, assessment tools and tracking system may be cumbersome if there is a frequent change in the preceptors that will oversee the student while completing SEL activities.	SEL activities are dependent on the written agreements among practice centers and the licensed dietitians that work in these centers.	Supervised practice coordinator will identify the needs for training among preceptors. An online module may be developed to facilitate information and ensure data collection needed for program evaluation and learning assessment.		
TEACHING METHODS				
Identify strengths and/or areas of improvement resulting from the program evaluation process	How the program identified this strength or area of improvement	Short- or long-term strategy to maintain strength or address area of improvement	Specific timeline for implementation of the action steps	Results or data based on steps taken to date
Strength: Results of the program evaluation process will be used to identify strengths and areas for improvement relative to components of the program, including effectiveness of teaching methods for the student to meet required competencies and selected performance indicators.	During the preparation of the program's self-study, faculty developed, for each didactic and SEL course, the "Competency-Based Course Plan" listing the associated performance indicators and learning activities and the assessments (formative and summative) and the level(s) in which the student will be expected to demonstrate the competency. Each specific Course Plan was also used to identify the learning activity selected and included in the course syllabi.	The program's Curriculum and Assessment Committee will evaluate performance data obtained from the student's tracking process. Analysis of this outcome data will be used to determine the effectiveness of courses' learning activities and discuss the teaching methods for changes needed into the "Competency-Based Course Plan" and course syllabi.	Periodically, each semester	Not yet available
Anticipated challenges: Effectiveness of teaching methods may be influenced by each	Each course plan was individually developed by the professor that may be teaching the course and	Student evaluations at the end of each course will include the student's perception of	Twice a year	

student's personal situation and not solely due to the learning activities and teaching methods within the MSND-SEL curriculum	later reviewed by all faculty in the curriculum committee. Learning activities and teaching methods were carefully considered to facilitate assessment of learning.	teaching methods and learning activities. The program's academic advisor will work closely with the MSND-SEL Director to identify whether student's need additional support services or referral to help them with any personal situations.		
PROGRAM LENGTH				
Identify strengths and/or areas of improvement resulting from the program evaluation process	How the program identified this strength or area of improvement	Short- or long-term strategy to maintain strength or address area of improvement	Specific timeline for implementation of the action steps	Results or data based on steps taken to date
Strength: The MSND-SEL with a SEL, as a single program, is expected to be completed in 2 years which includes a summer session after completion of the first year and all its didactic courses are offered online. The program enables an undergraduate student to complete the requirements to take the CDR credentialing exam in a reasonable time and its online portion allows non-traditional students to consider this program as feasible for them. The length or "time to degree" is in compliance with criteria established in the Academic Policy	As part of the curricular program design, didactic and experiential learning were integrated guided by the competencies/indicators defined by ACEND. The process took into consideration the total number of credits and contact hours required for each didactic course and the 1000 hours of SEL. Of the total 45 credits, 8 of those credits include a total of 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).	The MSND-SEL Director and program assistant will monitor institutional graduate data related to compliance with program completion criteria established by ACEND and by institutional Certification No. 95. Findings will be shared in meetings with both, internal and external stakeholders (graduates, administrators, faculty, preceptors, employers, practitioners) and advisory committee. Action strategies to applicable program components will be proposed to address the area of improvement detected.	Annually	Not yet available

for Graduate Studies of the Río Piedras Campus of the UPR (Certification No. 95, Academic Year 2019-2020, RP Campus Academic Senate).				
Strength: Results of the program evaluation process will be used to determine compliance of Objective 1.1: At least 80% of program graduates complete program within 3 years (150% of the program length).	The program's length/program completion is an ACEND's required objective to be included in the Program Evaluation Plan.	The program will evaluate itself analyzing data on actual program outcomes collected and summarized, comparing actual achievements with objectives. Program changes will be made to improve outcomes for any objective that do not meet the ACEND-required target. Program evaluation data will be shared and analyzed with both, internal and external stakeholders (graduates, administrators, faculty, preceptors, employers, practitioners) and advisory committee. Action strategies to applicable program components will be proposed to address the area of improvement detected.	Annually	Not yet available
Anticipated challenges: Time to degree: As the program may be attractive to non-traditional students due to its online component and excellent time for completion of	The MSND-SEL program is rooted in a need for future registered dietitian nutritionists to complete the supervised practice hours and graduate degree. Graduates from the UPR DPD that have not been	Program Director, assistant and supervised practice coordinator will ensure program evaluation tools and competency tracking data is considered to identify any		

requirements, there may be students that will require additional time and extend their time in the program to the maximum established of 3 years.	able to secure a dietetic internship position after graduation will see this program as an option. Thus, we recognize there may be a large group of graduates from bachelor programs that could be already working in other areas to apply for admission to the MSND-SEL.	students that may have difficulty in adhering to the expected curricular sequence.		
FACULTY				
Identify strengths and/or areas of improvement resulting from the program evaluation process	How the program identified this strength or area of improvement	Short- or long-term strategy to maintain strength or address area of improvement	Specific timeline for implementation of the action steps	Results or data based on steps taken to date
Strength: Program faculty within the Nutrition and Dietetics Program of the College of Natural Sciences, including the program director, meet the University of Puerto Rico's policies and procedures established for tenure track appointment, including the required graduate education in the subject in which they teach.	While aligning each course to faculty, the academic preparation and experience of each faculty member can be observed. All faculty have been involved in development of public policy in the island and have been recipients of numerous awards locally and nationally. Within the unit, the qualifications and credentials of the full time (tenure track and tenured) faculty, responsible for the implementation of the FEG program's curriculum, ensures the achievement of program objectives and students' competencies.	Future faculty appointments will continue to require that they meet the University of Puerto Rico established policies and regulations. The Nutrition and Dietetics Program Personnel Committee, with the participation of the MSND-SEL program director, delineates criteria for recruitment and position descriptions, including guidelines by which candidates will be evaluated following procedures established by the UPR General Bylaws (last amendment, September 2014).	Upon approval by institutional authorities for recruitment of a faculty full-time tenure track position.	Not yet available

Strength: The full time (tenure track and tenured) faculty show evidence of competency appropriate for teaching and other responsibilities. Faculty have a strong 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. Also, are actively participating in research areas of their choice or other activities leading to professional growth in the advancement of the profession.	Faculty are required to provide an Annual Faculty Achievements' Report and to document in the FACTUM's platform their professional work experience, additional graduate education, continuing education, scholarship/research, conferences, publications and other professional activities.	Annual Faculty Achievements' Reports will continue to be collected by Program Director and Assistant. Also, program director will have access to the online platform FACTUM, created by the Office of Strategic Planning and Budget Office (OPEP, by its Spanish acronym). Professors of the FEG-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.	Annual Faculty Achievements' Reports FACTUM annual reports	Not yet available
Anticipated challenges: None at this time.				
PRECEPTORS				
Identify strengths and/or areas of improvement resulting from the program evaluation process	How the program identified this strength or area of improvement	Short- or long-term strategy to maintain strength or address area of improvement	Specific timeline for implementation of the action steps	Results or data based on steps taken to date
Strength: All preceptors are Licensed (LND) or Registered Dietitian Nutritionists (RDN).	In PR, the body of laws that define and regulate the scope of practice and performance of Dietitian Nutritionists only requires the latter to be licensed but not a	Continue implementation of criteria established by the program for preceptors' appointments, including good standing with the state	Continuously	Not yet available

	<p>Registered Dietitian Nutritionist to practice. To be licensed it is required to take and approve a local board examination. Consequently, all preceptors are licensed and members of the Puerto Rico College of Nutritionists and Dietitians. Also, upon completion of required 36 hours of professional continuing education every three years, the state licensure is recertified by the Puerto Rico Health Department. In addition, maintaining the Registered Dietitian Nutritionist credential requires completion of 75 hours every five years.</p>	<p>licensure and professional requirements as well as one year of professional experience to mentor interns. The program will continue to promote and encourage preceptors to take the CDR Credentialing Exam although it is not required.</p>		
<p>Anticipated challenges: The program requires the support of practice sites and licensed nutritionists and dietitians to serve as preceptors of students during the supervised experiential learning. Since there are 3 accredited Dietetic Internships, there may be some initial difficulty to coordinate practice sites while making sure there is no overlap with dietetic interns. The SEL coordinator, under the supervision of the program director, will be ensuring collaborations with</p>	<p>Significant efforts are being made by the faculty member who will have the responsibility as SEL coordinator to identify qualified professionals to serve as preceptors. Also, to identify additional SEL practice sites in order to establish official collaborative agreements. Current clinical and foodservice institutions for undergraduate practice which will be expanded to cover the graduate program.</p>	<p>Short term action strategies include official communication to the Hospitals Association of Puerto Rico, the Department of Health of Puerto Rico, the College of Nutritionist and Dietitians of Puerto Rico, and recognized for their Nutrition and Dietetics practitioners for their expertise in the areas of foodservice, clinical and community.</p>	Ongoing	Not yet available

practice sites and preceptors are established and in place for student experiences.				
RESOURCES				
Identify strengths and/or areas of improvement resulting from the program evaluation process	How the program identified this strength or area of improvement	Short- or long-term strategy to maintain strength or address area of improvement	Specific timeline for implementation of the action steps	Results or data based on steps taken to date
Strength: Program Implementation and development costs are determined with realistic estimates, adequate to priorities and sufficient to support necessary resources to ensure continuity and quality. The estimated income, funds and expenses are aligned with enrollment projections and assure that students will have access to courses of the curricular sequence, as well as supervised learning experiences, activities, information resources, technologies, equipment, instruments, scholarships and support services, necessary for the academic experience throughout the program.	Program's budgetary planning process took into consideration the fiscal impact of each operational element of the program and estimated costs, direct and indirect. A 5-year budget plan was developed and approved for the new program.	Follow institutional policies and procedures for budget allocations under the advice of the Strategic Planning and Budget Office reassuring sufficient and necessary resources for program operations and compliance with accreditation standards. Operate the program in an effective and efficient manner integrating the use of technology and support faculty efforts to allocate external funds.	Ongoing	Not yet available
Anticipated challenges: In June, 2019 the Puerto Rico Oversight Board established by PROMESA approved a Fiscal Plan for UPR for FY2018 through	Is an existing fiscal constraint since the establishment of the Puerto Rico Oversight Board in Puerto Rico.	Maintain budgetary stability with an efficient and effective implementation of the program as an online offering. Adequate use of technological	Ongoing	Not yet available

FY2024. As a result, UPRRP has experimented annual cuts of significant impact in comparison to the reasonably stable stream of public funds that prevailed for decades. The Campus is in transition towards becoming a more sustainable operation, however, considerable reductions in governmental allocations, and an economic recovery constantly challenged must be considered in planning and assessment of results.		infrastructure and online resources available for faculty and students. Continue to train and support faculty in the allocation of external funding to support program development and transformation actions.		
OTHER				
Identify strengths and/or areas of improvement resulting from the program evaluation process	How the program identified this strength or area of improvement	Short- or long-term strategy to maintain strength or address area of improvement	Specific timeline for implementation of the action steps	Results or data based on steps taken to date
None at the time				

Appendix D – Curriculum Map (Program's Coherence and Sufficiency)

Revised curricular sequence and competencies alignment (October, 2023)

		Semester 1				Semester 2				Summer		Semester 3			Semester 4	
Knows																
Shows		MATE 6686 Experimental Design & Data Analysis	NUTR 6002 Research Methods in Nutrition & Dietetics	NUTR 6003 Nutrient Metabolism	NUTR 6004 Ethics & Profess.	NUTR 6111 Global Nutrition	NUTR 6112 FS Mgmt.	NUTR 6012 Nutrition Edu. & Counseling	NUTR 6013 Nutrition Assessment Dx	NUTR 6115 SEL: Com Nut	NUTR 6110 Research Project	NUTR 6010 MNT & Pathophys.	NUTR 6011 Pathophys. Life Span	NUTR 6116 SEL: FS	NUTR 6113 Adv. Concepts in Nutrition	NUTR 6014 SEL-CII Nut
Does																
C 1.1	PI 1.1.1		S				S				S					
	PI 1.1.2			K		K	S								K	
	PI 1.1.3		S								S				S	
	PI 1.1.4		K									K	K		K	
	PI 1.1.5					K			K							
C 1.2	PI 1.2.1			S		S						S			S	
	PI 1.2.2								S			S				
C 1.3	PI 1.3.1						S								S	
	PI 1.3.2						S								S	
C 1.4	PI 1.4.1			S												
	PI 1.4.2															
	PI 1.4.3						S								S	
C 1.5	PI 1.5.1								K			k			K	
	PI 1.5.2								S							
	PI 1.5.3															
	PI 1.5.4												S			
C 1.6	PI 1.6.1					S		S	S							
	PI 1.6.2								S							
	PI 1.6.3					S	S							S		
	PI 1.6.4					S				S			S			
C 1.7	PI 1.7.1					K		K								
	PI 1.7.2												S			
	PI 1.7.3					S		S	S				S			

[illegible]

Knows		Semester 1				Semester 2				Summer		Semester 3			Semester 4	
Shows		MATE 6686 Experimenta l Design & Data Analysis	NUTR 6002 Research Methods in Nutrition & Dietetics	NUTR 6003 Nutrient Metabolism	NUTR 6004 Ethics & Profess.	NUTR 6111 Global Nutrition .	NUTR 6112 FS Mgmt	NUTR 6012 Nutrition Edu. & Counseling	NUTR 6013 Nutrition Assessment Dx	NUTR 6115 SEL: Com Nut	NUTR 6110 Research Project	NUTR 6010 MNT & Pathophys	NUTR 6011 Pathophy s. Life Span	NUTR 6116 SEL: FS	NUTR 6113 Adv. Concepts in Nutrition	NUTR 6014 SEL-Cli Nut
Does																
C 1.11	PI 1.11.1							D			D					
	PI 1.11.2										D					D
C 1.12	PI 1.12.1						K							K		
	PI 1.12.2													D		
	PI 1.12.3						D									
	PI 1.12.4													D		
C 1.13*	PI 1.13.1										S		S	S	S	S
	PI 1.13.2										S		S			S
	PI 1.13.3															D
	PI 1.13.4													D	D	D
	PI 1.13.5		D													D
C 1.14	PI 1.14.1									D			D			
	PI 1.14.2												D			
	PI 1.14.3									D			D			
	PI 1.14.4			K						K			K			
C 1.15*	PI 1.15.1							K								
	PI 1.15.2							S								
	PI 1.15.3					S		S							S	
	PI 1.15.4							S		S						
	PI 1.15.5							S								

Knows		Semester 1				Semester 2				Summer		Semester 3			Semester 4	
Shows		MATE 6686 Experimental Design & Data Analysis	NUTR 6002 Research Methods in Nutrition & Dietetics	NUTR 6003 Nutrient Metabolism	NUTR 6004 Ethics & <u>Profess.</u>	NUTR 6111 Global Nutrition	NUTR 6112 FS Mgmt.	NUTR 6012 Nutrition Edu. & Counseling	NUTR 6013 Nutrition Assessment Dx	NUTR 6115 SEL: Com Nut	NUTR 6110 Research Project	NUTR 6010 MNT & Pathophys	NUTR 6011 Pathophys. Life Span	NUTR 6116 SEL: FS	NUTR 6113 Adv. Concepts in Nutrition	NUTR 6014 SEL-CLI Nut
Does																
C 1.16*	PI 1.16.1					K										
	PI 1.16.2					K										
	PI 1.16.3					K										
C 2.1*	PI 2.1.1									D						
	PI 2.1.2									D						
	PI 2.1.3					D										
	PI 2.1.4					D										
C 2.2	PI 2.2.1					D										
	PI 2.2.2		S			S			S							S
	PI 2.2.3									D						
	PI 2.2.4					D										
C 2.3	PI 2.3.1								D							D
	PI 2.3.2															D
	PI 2.3.3								D							D
	PI 2.3.4															D
	PI 2.3.5															D
	PI 2.3.6								D							D
	PI 2.3.7								D							D
	PI 2.3.8							D								D
	PI 2.3.9					D			D							D
	PI 2.3.10								D							D
	PI 2.3.11								D							D
	PI 2.3.12								D							D

Knows		Semester 1				Semester 2				Summer		Semester 3			Semester 4	
Shows		MATE 6686 Experimental Design & Data Analysis	NUTR 6002 Research Methods in Nutrition & Dietetics	NUTR 6003 Nutrient Metabolis m	NUTR 6004 Ethics & Profess	NUTR 6111 Global Nutrition	NUTR 6112 FS Mgmt.	NUTR 6012 Nutrition Edu. & Counseling	NUTR 6013 Nutrition Assessment Dx	NUTR 6115 SEL: Com Nut	NUTR 6110 Research Project	NUTR 6010 MNT & Pathophys.	NUTR 6011 Pathophys. Life Span	NUTR 6116 SEL: FS	NUTR 6113 Adv. Concepts in Nutrition	NUTR 6014 SEL-Cli Nut
Does																
C 2.3 (cont.)	PI 2.3.13							D	D							D
	PI 2.3.14								D							D
	PI 2.3.15								D							D
	PI 2.3.16															D
	PI 2.3.17															D
	PI 2.3.18															D
	PI 2.3.19															D
	PI 2.3.20															D
	PI 2.3.21															D
	PI 2.3.22															D
	PI 2.3.23															D
	PI 2.3.24															D
	PI 2.3.25									D						D
	PI 2.3.26															D
	PI 2.3.27															
C 2.4*	PI 2.4.1															D
	PI 2.4.2															D
	PI 2.4.3															D
	PI 2.4.4															D
	PI 2.4.5				D											D
	PI 2.4.6							D		D						
	PI 2.4.7									D						
	PI 2.4.8							D		D						D
	PI 2.4.9									D						
	PI 2.4.10							D		D						
	PI 2.4.11									D						
	PI 2.4.12									D						
	PI 2.4.13							D								D
	PI 2.4.14									D						D

Knows		Semester 1				Semester 2				Summer		Semester 3			Semester 4	
Shows		MATE 6686 Experimental Design & Data Analysis	NUTR 6002 Research Methods in Nutrition & Dietetics	NUTR 6003 Nutrient Metabolis m	NUTR 6004 Ethics & Profess.	NUTR 6111 Global Nutrition	NUTR 6112 FS Mgmt	NUTR 6012 Nutrition Edu. & Counseling	NUTR 6013 Nutrition Assessment Dx	NUTR 6115 SEL: Com Nut	NUTR 6110 Research Project	NUTR 6010 MNT & Pathophys.	NUTR 6011 Pathophys. Life Span	NUTR 6116 SEL: FS	NUTR 6113 Adv. Concepts in Nutrition	NUTR 6014 SEL: CN
Does																
C 2.4 *(cont.)	PI 2.4.15							K								
	PI 2.4.16							K								
	PI 2.4.17							K								
	PI 2.4.18							D								
	PI 2.4.19				D			D		D						D
C 2.5*	PI 2.5.1											S	S			
	PI 2.5.2								S			S	S			
	PI 2.5.3											S	S			
	PI 2.5.4								S			S	S			
	PI 2.5.5											S	S			
	PI 2.5.6												S			
	PI 2.5.7									S			S			
	PI 2.5.8								S				S			
	PI 2.5.9								S				S			
	PI 2.5.10				S				S				S			
C 3.1*	PI 3.1.1						D							D		
	PI 3.1.2						D							D		
	PI 3.1.3						D									
	PI 3.1.4						D									
	PI 3.1.5						D									
	PI 3.1.6						D									
	PI 3.1.7						D									
	PI 3.1.8						D							D		

Knows		Semester 1				Semester 2				Summer		Semester 3			Semester 4	
Shows		MATE 6686 Experimental Design & Data Analysis	NUTR 6002 Research Methods in Nutrition & Dietetics	NUTR 6003 Nutrient Metabolis m	NUTR 6004 Ethics & Profess.	NUTR 6111 Global Nutrition	NUTR 6112 FS Mgmt	NUTR 6012 Nutrition Edu. & Counseling	NUTR 6013 Nutrition Assessment Dx	NUTR 6115 SEL: Com Nut	NUTR 6110 Research Project	NUTR 6010 MNT & Pathophys.	NUTR 6011 Pathophys. Life Span.	NUTR 6116 SEL: FS	NUTR 6113 Adv. Concepts in Nutrition	NUTR 6014 SEL: Cli Nut
Does																
C 3.2*	PI 3.2.1						D									
	PI 3.2.2						D									
	PI 3.2.3						D									
	PI 3.2.4						S									
	PI 3.2.5						K									
	PI 3.2.6						D							D		
	PI 3.2.7						D							D		
C 3.3	PI 3.3.1						D									
	PI 3.3.2						D									
	PI 3.3.3													D		
	PI 3.3.4						D							D		
C 3.4	PI 3.4.1					K	K			K						
	PI 3.4.2					S				S						
	PI 3.4.3															
C 4.1*	PI 4.1.1					D		D							D	
	PI 4.1.2					D		D		D						
	PI 4.1.3									D						
	PI 4.1.4					D		D								
	PI 4.1.5		D													
	PI 4.1.6							D								
	PI 4.1.7															

Knows		Semester 1				Semester 2				Summer		Semester 3			Semester 4	
Shows		MATE 6686 Experimental Design & Data Analysis	NUTR 6002 Research Methods in Nutrition & Dietetics	NUTR 6003 Nutrient Metabolism	NUTR 6004 Ethics & Profess.	NUTR 6111 Global Nutrition	NUTR 6112 FS Mgmt.	NUTR 6012 Nutrition Edu. & Counseling	NUTR 6013 Nutrition Assessment Dx	NUTR 6115 SEL: Com Nut	NUTR 6110 Research Project	NUTR 6010 MNT & Pathophys	NUTR 6011 Pathophys. Life Span	NUTR 6116 SEL: FS	NUTR 6113 Adv. Concepts in Nutrition	NUTR 6014 SEL-Cli Nut
Does																
C 4.2	PI 4.2.1					K										
	PI 4.2.2					D				D						
	PI 4.2.3					D									D	
C 5.1*	PI 5.1.1				S		S									
	PI 5.1.2				K											
	PI 5.1.3															
	PI 5.1.4															
	PI 5.1.5					D									D	
	PI 5.1.6													D		
C 5.2*	PI 5.2.1						D							D		
	PI 5.2.2					D	D							D		
	PI 5.2.3						D							D		
	PI 5.2.4						D							D		
	PI 5.2.5						D							D		
	PI 5.2.6						D							D		
	PI 5.2.7						D							D		
	PI 5.2.8						S							S		
	PI 5.2.9						D									
	PI 5.2.10						D							D		
	PI 5.2.11						D							D		
	PI 5.2.12						D							D		
	PI 5.2.13						D									
	PI 5.2.14						D							D		
	PI 5.2.15						D							D		

Knows		Semester 1				Semester 2				Summer		Semester 3			Semester 4	
Shows		MATE 6686 Experimental Design & Data Analysis	NUTR 6002 Research Methods in Nutrition & Dietetics	NUTR 6003 Nutrient Metabolism	NUTR 6004 Ethics & Profess.	NUTR 6111 Global Nutrition	NUTR 6112 FS Mgmt.	NUTR 6012 Nutrition Edu. & Counseling	NUTR 6013 Nutrition Assessment Dx	NUTR 6115 SEL: Com Nu	NUTR 6110 Research Project	NUTR 6010 MNT & Pathophys	NUTR 6011 Pathophys. Life Span	NUTR 6116 SEL: FS	NUTR 6113 Adv. Concepts in Nutrition	NUTR 6014 SEL: Cli Nut
Does																
C 5.2* (cont.)	PI 5.2.16													D		
	PI 5.2.17						D							D		
	PI 5.2.18									D				D		D
	PI 5.2.19									D				D		
	PI 5.2.20									D				D	D	
	PI 5.2.21									D				D		
	PI 5.2.22									D				D		
C 5.3*	PI 5.3.1					D	D									
	PI 5.3.2					D										
	PI 5.3.3						D				D					
	PI 5.3.4										D					
C 5.4	PI 5.4.1													D		
	PI 5.4.2													D		
	PI 5.4.3													D		
	PI 5.4.4													D		
	PI 5.4.5													D		
C 5.5	PI 5.5.1									D						
	PI 5.5.2													D		
	PI 5.5.3						D									
C 6.1	PI 6.1.1					D					D				D	
	PI 6.1.2															
	PI 6.1.3					D									D	

Knows		Semester 1				Semester 2				Summer		Semester 3			Semester 4	
Shows		MATE 6686 Experimental Design & Data Analysis	NUTR 6002 Research Methods in Nutrition & Dietetics	NUTR 6003 Nutrient Metabolism	NUTR 6004 Ethics & Profess.	NUTR 6111 Global Nutrition	NUTR 6112 FS Mgmt.	NUTR 6012 Nutrition Edu. & Counseling	NUTR 6013 Nutrition Assessment Dx	NUTR 6115 SEL: Com Nut	NUTR 6110 Research Project	NUTR 6010 MNT & Pathophys	NUTR 6011 Pathophys. Life Span	NUTR 6116 SEL: FS	NUTR 6113 Adv. Concepts in Nutrition	NUTR 6014 SEL: Cli Nut
Does																
C 6.2*	PI 6.2.1	D	D						D							
	PI 6.2.2		D						D							
	PI 6.2.3		D													
	PI 6.2.4				D											
	PI 6.2.5		D								D					
	PI 6.2.6		D								D					
	PI 6.2.7		D								D					
C 6.3	PI 6.3.1		D								D					
	PI 6.3.2		D	D											D	
	PI 6.3.3			D												
	PI 6.3.4		D	D												
C 7.1	PI 7.1.1				D											
	PI 7.1.2															
	PI 7.1.3															
	PI 7.1.4															
	PI 7.1.5															
	PI 7.1.6															
	PI 7.1.7															
	PI 7.1.8															D
C 7.2	PI 7.2.1													D		
	PI 7.2.2									D						
	PI 7.2.3					D										
	PI 7.2.4							D			D					D

Appendix E. Competency Assessment Table & Enhanced Competencies

Revised October, 2023

Master of Science in Nutrition and Dietetics with Supervised Experiential Learning (Future Education Model)

FG Competency Assessment (Required Element 5.1; 2022 Standards Required Element 4.1)

Background: The Graduate Program Competency Assessment table is used to identify summative assessment methods (e.g., projects, rubrics, case studies, exams, etc.) required within the curriculum where the evaluation of competencies occurs to ensure the student's ability to demonstrate the competency.

Note: Competencies with an asterisk (*) are enhanced competencies that incorporate an increase in the scope compared to current practice

Competency (level)	List course and course number or rotation in which the competency is assessed	List specific, required summative assessment method(s) (exam, rubric, project, etc.) used to measure achievement of the competency
Knows (K)		
Shows (S)		
Does (D)		
Unit 1: Foundational Knowledge Applies foundational sciences to food and nutrition knowledge to meet the needs of individuals, groups, and organizations.		
1.1 Applies an understanding of environmental, molecular factors (e.g. genes, proteins, metabolites) and food in the development and management of disease. (S)	Pathophysiology of Life Span NUTR 6011	Synthesize scientific literature on a topic through an annotated bibliography
	Nutrient Metabolism NUTR 6003	Case study
1.2 Applies an understanding of anatomy, physiology, and biochemistry. (S)	MNT and Pathophysiology NUTR 6010	Oral presentation of case study on diseases of the gastrointestinal tract.
1.3 Applies knowledge of microbiology and food safety. (S)	Foodservice Management NUTR 6112	Create a HACCP plan and explain why a step is a hazard that needs to be controlled and the mechanism and reason for effectiveness for the controls.
1.4 Integrates knowledge of chemistry and food science as it pertains to food and nutrition product development and when making modifications to food. (S)	Foodservice Management NUTR 6112	Modification of a recipe to substitute ingredients that modify target nutrients (e.g., low fat; wheat free, allergies) without sacrificing characteristics of the food product.
1.5 Applies knowledge of pathophysiology and nutritional biochemistry to physiology, health and disease. (S)	Nutrition Assessment and Diagnosis NUTR 6013	Simulated case study presentation designed to modify medical nutrition therapy based on pathophysiology and biochemistry findings.
	Pathophysiology of the Life Span NUTR 6011	Develop a literature review

Competency (level)	List course and course number or rotation in which the competency is assessed	List specific, required summative assessment method(s) (exam, rubric, project, etc.) used to measure achievement of the competency
Knows (K)		
Shows (S)		
Does (D)		
1.6 Applies knowledge of social, psychological and environmental aspects of eating and food. (S)	Global Nutrition 6111	Course project; preparation of policy brief on country of choice (Hungry Planet)
1.7 Integrates the principles of cultural competence within own practice and when directing services. (D)	Pathophysiology of Life Span NUTR 6011	Design a meal plan
	Nutrition Education and Counseling NUTR 6012	Case studies/Discussion Forum
	SEL: Community Nutrition NUTR 6115	Apply cultural competence principles in a counseling session.
1.8* Applies knowledge of pharmacology to recommend, prescribe and administer medical nutrition therapy. (S)	Nutrition Assessment and Diagnosis NUTR 6013	Evaluate a nutrition plan from a patient with a chronic disease considering drug-nutrient interaction.
1.9* Applies an understanding of the impact of complementary and integrative nutrition on drugs, disease, health and wellness. (S)	MNT & Pathophysiology NUTR 6010	Develop educational material on the evidence of effectiveness of particular integrative nutrition practice.

Competency (level)	List course and course number or rotation in which the competency is assessed	List specific, required summative assessment method(s) (exam, rubric, project, etc.) used to measure achievement of the competency
Knows (K)		
Shows (S)		
Does (D)		
Unit 1: Foundational Knowledge (cont.)		
1.10* Applies knowledge of math and statistics. (S)	Advanced Data Analysis and Experimental Design (3) MATE 6686	Special projects (First and second projects)
	Research Methods in Nutrition and Dietetics NUTR 6002	Interprets the statistical analysis of a published study.
1.11 Applies knowledge of medical terminology when communicating with individuals, groups and other health professionals. (D)	SEL: Community Nutrition NUTR 6115	Create client/patient education material using layman terms to explain medical terminology.
1.12 Demonstrates knowledge of and is able to manage food preparation techniques. (D)	SEL: Foodservice Management NUTR 6116	Evaluate and make recommendations for staff resources during food preparation.
1.13* Demonstrates computer skills and uses nutrition informatics in the decision-making process. (D)	SEL: Clinical Nutrition NUTR 6014	Utilize the electronic health record to develop a dietary treatment plan.
1.14 Integrates knowledge of nutrition and physical activity in	Pathophysiology of Life Span NUTR 6011	Document and analyze food intake on a typical day

the provision of nutrition care across the life cycle. (D)	Pathophysiology of Life Span NUTR 6011	Use medical and nutrition assessment data to recommend nutritional meal and daily physical activity plans.
1.15* Applies knowledge of nutritional health promotion and disease prevention for individuals, groups and populations. (S)	SEL: Community Nutrition NUTR 6115	Develop a lesson plan and presentation to a community audience considering determinants of health on wellness.
1.16* Gains a foundational knowledge on public and global health issues and nutritional needs. (K)	Global Nutrition NUTR 6111	Case study report (Xavante Indians, Globalization and Nutrition Transition)
Unit 2: Client/Patient Services Applies and integrates client/patient-centered principles and competent nutrition and dietetics practice to ensure positive outcomes.		
2.1* Applies a framework to assess, develop, implement and evaluate products, programs and services. (D)	Global Nutrition NUTR 6111	Prepare a Community Program Logic Model for nutritional issues in the country of choice.
2.2 Selects, develops and/or implements nutritional screening tools for individuals, groups or populations. (D)	SEL: Clinical Nutrition NUTR 6014	Use and interpret the results of a screening tool to assess risk for malnutrition and decision making.
2.3 Utilizes the nutrition care process with individuals, groups or populations in a variety of practice settings. (D)	Nutrition Education and Counseling NUTR 6012 SEL: Clinical Nutrition NUTR 6014	A case study to examine the four steps of the Nutritional Care Process. Complete a comprehensive nutrition assessment, including a nutrition focused physical exam for clients/patients who have major or complex health and nutrition needs. (Field rotation evaluation card)
2.4* Implements or coordinates nutritional interventions for individuals, groups or populations. (D)	Nutrition Education and Counseling NUTR 6012 SEL: Community Nutrition NUTR 6115	Create (new) and evaluate (existing) educational material Prepare a nutrition educational activity on a specific health condition for an outpatient clinic
2.5* Prescribes, recommends and administers nutrition-related pharmacotherapy. (S)	MNT and Pathophysiology NUTR 6010	Develop a complete nutrition care evaluation form from a simulated case study with polypharmacy in patients with diseases of the immune system
Unit 3: Food Systems Management Applies food systems principles and management skills to ensure safe and efficient delivery of food and water.		
3.1* Directs the production and distribution of quantity and quality food products. (D)	Foodservice Management NUTR 6112	Create mock budget for foodservice department.
3.2* Oversees the purchasing, receipt and storage of products used in food production and services. (D)	SEL: Foodservice Management NUTR 6116	Conduct a review of the inventory and storage; identify problem issues (e.g., waste, shortage, safety, lack of availability); make recommendations; and communication changes.

3.3 Applies principles of food safety and sanitation to the storage, production and service of food. (D)	SEL: Foodservice Management NUTR 6116	Create a disaster plan for a water or world food shortage.
3.4 Applies and demonstrates an understanding of agricultural practices and processes. (S)	Global Nutrition NUTR 6111	Preparation of a non-US country profile on nutrition and health [Module 4 – Global food production].
Unit 4: Community and Population Health Nutrition Applies community and population nutrition health theories when providing support to community or population nutrition programs.		
4.1* Utilizes program planning steps to develop, implement, monitor and evaluate community and population programs. (D)	Global Nutrition NUTR 6111	Prepare a Community Program Logic Model for a nutritional issue in a non-US country of choice.
4.2 Engages in legislative and regulatory activities that address community, population and global nutrition health and nutrition policy. (D)	SEL: Nutrition Community NUTR 6115	Group project to develop a nutrition policy address to legislators.
Competency (level)	List course and course number or rotation in which the competency is assessed	List specific, required summative assessment method(s) (exam, rubric, project, etc.) used to measure achievement of the competency
Knows (K)		
Shows (S)		
Does (D)		
Unit 5: Leadership, Business, Management and Organization Demonstrates leadership, business and management principles to guide practice and achieve operational goals.		
5.1* Demonstrates leadership skills to guide practice. (D)	SEL: Foodservice Management NUTR 6116	Mentor a first-year student of the undergraduate or graduate program.
5.2* Applies principles of organization management. (D)	SEL: Foodservice Management	Create a production schedule.
5.3* Applies project management principles to achieve project goals and objectives. (D)	Global Nutrition NUTR 6111	Course project using WHO e-library to analyze nutrition policies
5.4 Leads quality and performance improvement activities to measure, evaluate and improve a program’s services, products and initiatives. (D)	SEL: Foodservice Management NUTR 6116	Prepare a SWOT analysis
5.5 Develops and leads implementation of risk management strategies and programs. (D)	Foodservice Management NUTR 6112	Develop a mock safety inspections checklist or audit tool.
Unit 6: Critical Thinking, Research and Evidence-Informed Practice Integrates evidence-informed practice, research principles and critical thinking into practice.		
6.1 Incorporates critical thinking skills in practice. (D)	Research Project NUTR 6110	Prepares the significance section of the research proposal.
	Advanced Concepts in Nutrition NUTR 6113	Make a dietary recommendation for an older adult.

6.2* Applies scientific methods utilizing ethical research practices when reviewing, evaluating and conducting research. (D)	<p>Advanced Data Analysis and Experimental Design MATE 6686</p> <p>Research Methods in Nutrition and Dietetics NUTR 6002</p> <p>Ethics and Professionalism NUTR 6004</p>	<p>Special project (Third project)</p> <p>Develop an educational hand-out for professionals on a clinical nutrition issue using scientific findings.</p> <p>Case Study or project - Development of a mentoring program</p>
6.3 Applies current research and evidence-informed practice to services. (D)	<p>Nutrient Metabolism NUTR 6003</p> <p>Advance Concepts in Nutrition NUTR 6113</p>	<p>Create a nutrition care plan of care based on evidence-based literature and evidence-informed practice.</p> <p>Case study or special project – contemporary issues, economic, political and social factors, diverse perspectives of novel topics</p>
Unit 7: Core Professional Behaviors Demonstrates professional behaviors and effective communication in all nutrition and dietetics interactions.		
7.1 Assumes professional responsibilities to provide safe, ethical and effective nutrition services. (D)	<p>Ethics and Professionalism NUTR 6004</p> <p>SEL: Clinical Nutrition NUTR 6014</p>	<p>Case studies of ethical scenarios in professional practice.</p> <p>Conducts Nutrition Care Process for a patient with Total Parenteral Nutrition maintaining confidentiality and following HIPAA regulations.</p>
7.2 Uses effective communication, collaboration and advocacy skills. (D)	<p>Nutrition Education and Counseling NUTR 6012</p> <p>SEL: Community Nutrition NUTR 6115</p>	<p>Design an educational campaign</p> <p>Write a blog post related to nutrition and dietetic advocacy.</p>

Graduate Degree Enhanced Competencies

Prescribing medical nutrition therapy

- 1.8 Applies knowledge of pharmacology to recommend, prescribe and administer medical nutrition therapy.
- 1.9 Applies an understanding of the impact of complementary and integrative nutrition on drugs, disease, health and wellness.
- 1.10 Applies knowledge of math and statistics.
- 2.5 Prescribes, recommends and administers nutrition related pharmacotherapy.

Administration/Leadership

- 3.1 Directs the production and distribution of quantity and quality food products.
- 3.2 Oversees the purchasing, receipt and storage of products used in food production and services.
- 5.1 Demonstrates leadership skills to guide practice.
- 5.2 Applies principles of organization management.
- 5.3 Applies project management principles to achieve project goals and objectives.

Global/Community/Public Health

- 1.13 Demonstrates computer skills and uses nutrition informatics in the decision making process.
- 1.15 Applies knowledge of nutritional health promotion and disease prevention for individuals, groups and populations.
- 1.16 Gains a foundational knowledge on public and global health issues and nutritional needs.
- 4.1 Utilizes program planning steps to develop, implement, monitor and evaluate community and population programs.

Product Development (Industry)

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

Research

- 1.13 Demonstrates computer skills and uses nutrition informatics in the decision making process.
- 6.2 Applies scientific methods utilizing ethical research practices when reviewing, evaluating and conducting research.

MNT Therapy Counseling

- 2.4 Implements or coordinates nutritional interventions for individuals, groups or populations.
 - Psychological Counseling and Therapies

Graduate Degree Practitioner

ELIGIBLE CREDENTIAL:
RDN

DEGREE NEEDED:
Master or Higher



Prescribing Medical Nutrition Therapy/ Pharmacotherapy



Administration/ Leadership/ Entrepreneurship



Global/Community/ Public Health



Research



Medical Nutrition Therapy Counseling/ Behavior Modification

Appendix F - Alignment of Courses with Curricular Map & ACEND's Future Education Model
Graduate Competencies⁸ (Revised Alignment – October, 2023)

* Denotes Enhanced Competency

Course Title, Code & Credits	Prerequisites	Course Description	ACEND'S Future Education Model Graduate Degree Competencies (K=know; S=show; D=does) (SYLLABLES approved VPAAR-UPR)	Submitted, ACEND Interim Report September -15-2022	
				Curricular Map	Competency Assessment Table
Research Methods in Nutrition and Dietetics NUTR 6002 (3)	Undergraduate: NUTR 4198 or equivalent undergraduate research course MATE 3026 or equivalent undergraduate statistical analysis course.	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 and the use of biomarkers. Students are expected to develop a research proposal to serve as part of their research project requirement.	<p>1.1 Applies an understanding of environmental, molecular factors (e.g. genes, proteins, metabolites) and food in the development and management of disease.</p> <p>1.10* Applies knowledge of math and statistics.</p> <p>1.13* Demonstrates computer skills and uses nutrition informatics in the decision-making process.</p>	<p>1.1.1 Analyzes the usefulness and limitations of epidemiological, clinical and other study designs and identifies trends in diet and disease. (S)</p> <p>1.1.3 Communicates epidemiological evidence related to the relationship between diet and the development of disease. (S)</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. (K)</p> <p>1.10.1 Chooses appropriate statistical methods, performs statistical analysis and interprets results in various data analysis situations. (S)</p> <p>1.10.2 Communicates information on statistical methods, results and interpretation, both orally and in writing. (S)</p> <p>1.13.5 Uses technology and informatics skills proficiently to aggregate data and enhance practice and client/patient care. (D)</p>	1.10* Applies knowledge of math and statistics. (S)

⁸ Alignment of competencies between syllables and Curricular Map may vary because of changes in accreditation standards.

Course Title, Code & Credits	Prerequisites	Course Description	ACEND'S Future Education Model Graduate Degree Competencies (K=know; S=show; D=does) (SYLLABLES approved VPAAR-UPR)	Submitted, ACEND Interim Report September -15-2022	
				Curricular Map	Competency Assessment Table
			<p>2.2 Selects, develops and/or implements nutritional screening tools for individuals, groups or populations. (D)</p> <p>4.1 * Utilizes program planning steps to develop, implement, monitor and evaluate community and population programs. (D)</p> <p>6.2 * Applies scientific methods utilizing ethical research practices when reviewing, evaluating and conducting research. (D)</p> <p>6.3 Applies current research and evidence-informed practice to services. (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>4.1.5 Interprets and uses nutrition surveillance and global health and safety data. (D)</p> <p>6.2.1 Identifies, explains and applies the steps of the scientific method and processes. (D)</p> <p>6.2.2 Articulates a clear research question or problem and formulates a hypothesis. (D)</p> <p>6.2.3 Identifies and demonstrates appropriate research methods. (D)</p> <p>6.2.4 Interprets and applies research ethics and responsible conduct in research. (D)</p> <p>6.2.5 Collects and retrieves data using a variety of methods (qualitative, quantitative) and technologies. (D)</p> <p>6.2.6 Analyzes research data using appropriate data analysis techniques (qualitative, quantitative, mixed). (D)</p> <p>6.2.7 Translates and communicates research findings and conclusions through a variety of media. (D)</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</p>	<p>6.2* Applies scientific methods utilizing ethical research practices when reviewing, evaluating and conducting research. (D)</p>

Course Title, Code & Credits	Prerequisites	Course Description	ACEND'S Future Education Model Graduate Degree Competencies (K=know; S=show; D=does) (SYLLABLES approved VPAAR-UPR)	Submitted, ACEND Interim Report September -15-2022	
				Curricular Map	Competency Assessment Table
				practice findings to determine the validity, reliability and credibility of information. (D) 6.3.4 Analyzes and formulates a professional opinion based on the current research and evidence-based findings and experiential learning. (D)	
Advanced Data Analysis and Experimental Design (3) MATE 6686	Undergraduate: MATE 3026 or another introductory course of Statistics at undergraduate level	This course will introduce the student to commonly used methods in Experimental Design and Statistical Data Analysis, with applications in Biology, Chemistry, Environmental Sciences, Nutrition, etc. The student will use statistical programming languages for performing the analysis of data sets using the techniques studied in the course.	1.10* Applies knowledge of math and statistics. (S) 6.2 * Applies scientific methods utilizing ethical research practices when reviewing, evaluating and conducting research. (D)	1.10* Applies knowledge of math and statistics. (S) 6.2* Incorporates critical thinking skills in practice. (D)	1.10* Applies knowledge of math and statistics. (S) 6.2* Incorporates critical thinking skills in practice. (D)
Ethics and Professionalism (1cr) NUTR 6004 Revised alignment	None	This course discusses the various components of professionalism in Nutrition and Dietetics with special emphasis on practice according to ethical and legal frameworks. Includes the discussion of personal attributes that comprise professionalism such as effective communication, interpersonal relations, commitment to lifelong learning and cultural	Interim Report, 2021 (Syllabi revised) 2.4* Implements or coordinates nutritional interventions for individuals, groups or populations. (D) 2.5* Prescribes, recommends and administers nutrition-related pharmacotherapy. (S)	2.4.5 Refers/transfers care to relevant professionals when client/patient needs or required interventions are beyond personal competence or professional scope of practice. (D) 2.5.10 Consults and refers/transfers client/patient to the appropriate health professional when client/patient's needs are beyond personal competence or professional scope of practice. (S)	

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				Curricular Map	Competency Assessment Table
		competence. Analysis of the Standards of Practice in various practice settings and of the Scope of Practice for the nutrition and dietetics professional.	<p>5.1* Demonstrates leadership skills to guide practice. (D)</p> <p>6.2* Applies scientific method utilizing ethical research practices when reviewing, evaluating and conducting research. (K)</p> <p>7.1 Assumes professional responsibilities to provide safe, ethical and effective nutrition services. (D)</p>	<p>5.1.1 Exhibits self-awareness in terms of personality, learning, leadership style and cultural orientation. (S)</p> <p>5.1.2 Demonstrates understanding of social cues and team dynamics. (K)</p> <p>6.2.4 Interprets and applies research ethics and responsible conduct in research. (D)</p> <p>7.1.1 Demonstrates ethical behaviors in accordance to the professional Code of Ethics. (D)</p>	<p>6.2* Applies scientific method utilizing ethical research practices when reviewing, evaluating and conducting research. (K)</p> <p>7.1 Assumes professional responsibilities to provide safe, ethical and effective nutrition services. (D)</p>
<p>Foodservice Management (3)</p> <p>NUTR 6112</p> <p>Revised alignment</p>	<p>Undergraduate:</p> <p>NUTR 4055</p> <p>NUTR 4068</p> <p>NUTR 4075</p> <p>NUTR 4076</p> <p>NUTR 4086</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 in an effective and efficient way. The course focuses on the competencies of</p>	<p>1.1 Applies an understanding of environmental, molecular factors (e.g. genes, proteins, metabolites) and food in the development and management of disease. (S)</p> <p>1.3 Applies knowledge of microbiology and food safety. (S)</p>	<p>1.1.1 Analyzes the usefulness and limitations of epidemiological, clinical and other study designs and identifies trends in diet and disease. (S)</p> <p>1.1.2 Demonstrates general understanding of nutrition and genetics, as it relates to health conditions. (K)</p> <p>1.3.1 Applies food safety principles of microbiological food spoilage and strategies for controlling microbial growth. (S)</p> <p>1.3.2 Implements key principles and practices to make foods safe for consumption at all stages during the flow of food. (S)</p>	<p>1.3 Applies knowledge of microbiology and food safety. (S)</p>

Course Title, Code & Credits	Prerequisites	Course Description	ACEND'S Future Education Model Graduate Degree Competencies (K=know; S=show; D=does) (SYLLABLES approved VPAAR-UPR)	Submitted, ACEND Interim Report September -15-2022	
				Curricular Map	Competency Assessment Table
		the professional in Nutrition and Dietetics working in the institutional or commercial foodservice sector. Through emphasis on teamwork, case studies, and projects, students will demonstrate their competency in applying dietetic skills in a foodservice system.	<p>1.4 Integrates knowledge of chemistry and food science as it pertains to food and nutrition product development and when making modifications to food. (S)</p> <p>1.6 Applies knowledge of social, psychological and environmental aspects of eating and food. (S)</p> <p>1.10*Applies knowledge of math and statistics. (S)</p> <p>1.12 Demonstrates knowledge of and is able to manage food preparation techniques. (D)</p> <p>3.1* Directs the production and distribution of quantity and quality food products. (D)</p>	<p>1.4.3 Evaluates the chemical nature and composition of food-on-food quality, acceptability and compatibility. (S)</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. (S)</p> <p>1.10.3 Applies math skills to perform food and nutrition calculations. (S)</p> <p>1.12.1 Demonstrates understanding of safe work habits and safety hazards and employs preventive safety measures. (K)</p> <p>1.12.3 Develops recipes and menus and increases or decreases quantities served from the recipe. (D)</p> <p>3.1.1 Manages or oversees the planning, designing and coordination of meals to ensure delivery of nutritionally sound meals. (D)</p> <p>3.1.2 Analyzes the workflow design and makes recommendations for modifications or approves for implementation. (D)</p> <p>3.1.3 Communicates the organization's mission and how work activities impact the services and organization. (D)</p> <p>3.1.4 Establishes and analyzes policies and performance measures for quality and quantity of work. (D)</p>	<p>1.4 Integrates knowledge of chemistry and food science as it pertains to food and nutrition product development and when making modifications to food. (S)</p> <p>3.1* Directs the production and distribution of quantity and quality food products. (D)</p>

Course Title, Code & Credits	Prerequisites	Course Description	ACEND'S Future Education Model Graduate Degree Competencies (K=know; S=show; D=does) (SYLLABLES approved VPAAR-UPR)	Submitted, ACEND Interim Report September -15-2022	
				Curricular Map	Competency Assessment Table
			3.2 * Oversees the purchasing, receipt and storage of products used in food production and services. (D)	<p>3.1.5 Implements systems to report on local, state and federal compliance. (D)</p> <p>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)</p> <p>3.1.7 Establishes a culture that is ethical and free of safety and health hazards. (D)</p> <p>3.1.8 Investigates and optimizes opportunities to reduce the environmental carbon footprint of foodservice operations and to enhance sustainability. (D)</p> <p>3.2.1 Follows a matrix or measures to evaluate the need for financial, technical and equipment resources for the provision of foodservices. (D)</p> <p>3.2.2 Applies ethical decision making to determine the need for reduction or increase in resources. (D)</p> <p>3.2.3 Creates internal or external professional relations and/or agreements to solve problems in foodservice operations. (D)</p> <p>3.2.4 Acts as a departmental and organizational liaison between contractual parties involved. (S)</p> <p>3.2.5 Demonstrates knowledge of inventory control as it pertains to the food and supplies of the foodservice operation. (K)</p> <p>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)</p>	

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				Curricular Map	Competency Assessment Table
			<p>3.3 Applies principles of food safety and sanitation to the storage, production and service of food.</p> <p>3.4 Applies and demonstrates an understanding of agricultural practices and processes. (S)</p> <p>5.1 * Demonstrates leadership skills to guide practice. (D)</p> <p>5.2 * Applies principles of organization management. (D)</p>	<p>3.2.7 Applies the relationship between forecasting and production as it pertains to recipe needs and organizational demand. (D)</p> <p>3.3.1 Maintains currency in and follows applicable legislation and guidelines. (D)</p> <p>3.3.2 Incorporates the required safety and nutritional health policies and procedures in the organization's mission and policies. (D)</p> <p>3.3.4 Takes into consideration food allergies when preparing menus and foods. (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>5.1.1 Exhibits self-awareness in terms of personality, learning, leadership style and cultural orientation. (S)</p> <p>Planning</p> <p>5.2.1 Establishes operational plan considering budget, inventory control, labor and regular daily tasks. (D)</p> <p>5.2.2 Aligns plans with the organizational strategic plan, mission and vision. (D)</p> <p>Organizing</p> <p>5.2.3 Assigns responsibilities to various team members according to scope of practice and personal competence. (D)</p> <p>5.2.4 Sets and monitors clear targets for team members, departments and the</p>	

Course Title, Code & Credits	Prerequisites	Course Description	ACEND'S Future Education Model Graduate Degree Competencies (K=know; S=show; D=does) (SYLLABLES approved VPAAR-UPR)	Submitted, ACEND Interim Report September -15-2022	
				Curricular Map	Competency Assessment Table
				<p>organization aligned with common objectives and goals. (D)</p> <p>5.2.5 Demonstrates an understanding of how individuals and groups interact within the organization. (D)</p> <p>5.2.6 Takes into consideration individual and organizational culture and behaviors when planning and managing. (D)</p> <p>Management</p> <p>5.2.7 Engages in, manages or leads human resource activities adhering to applicable legislation and regulations. (D)</p> <p>5.2.8 Integrates change management theories and conflict resolution skills to manage and promote positive change. (S)</p> <p>5.2.9 Uses persuasive communication skills to influence or produce a desired outcome during negotiations and conflict resolution discussions. (D)</p> <p>5.2.10 Understands and respects roles and responsibilities of interprofessional team members. (D)</p> <p>Controls</p> <p>5.2.11 Collects, understands and analyzes financial data to support fiscally responsible decision making. (D)</p> <p>5.2.12 Conducts cost effectiveness and cost benefit analyses to identify ways to meet budget priorities. (D)</p> <p>5.2.13 Analyzes components of a productivity system including units of service and work hours and makes recommendations. (D)</p> <p>5.2.14 Sets controls to analyze the progress and effectiveness of the operational plan and budget. (D)</p>	

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				Curricular Map	Competency Assessment Table
			<p>5.2.15 Collects and analyzes data to evaluate outcomes and determine if established goals and objectives are met. (D)</p> <p>Time Management</p> <p>5.2.17 Applies principles of time management to monitor and enhance personal productivity and productivity of others. (D)</p> <p>5.3 * Applies project management principles to achieve project goals and objectives. (D)</p> <p>5.5 Develops and leads implementation of risk management strategies and programs. (D)</p>	<p>5.3.1 Leads the development and completion of a project plan and budget. (D)</p> <p>5.5.3 Develops risk management plans and protocols. (D)</p>	<p>5.5 Develops and leads implementation of risk management strategies and programs. (D)</p>
<p>Global Nutrition (3 cr.)</p> <p>NUTR 6111</p>	None	<p>Fundamentals of health promotion and disease prevention using food and nutrition for individuals and communities, with emphasis on global food systems, international 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</p>	<p>1.1 Applies an understanding of environmental, molecular factors (e.g. genes, proteins, metabolites) and food in the development and management of disease. (S)</p> <p>1.2 Applies an understanding of anatomy, physiology, and biochemistry. (S)</p> <p>1.6 Applies knowledge of social, psychological and environmental aspects of eating and food. (S)</p>	<p>1.1.2 Demonstrates general understanding of nutrition and genetics, as it relates to health conditions. (K)</p> <p>1.1.5 Identifies the influence of food consumption on the development of diseases. (K)</p> <p>1.2.1 Analyzes the impact of food and nutrition on physiological processes. (S)</p> <p>1.6.1 Formulates food and nutrition services considering psychological and social factors to meet the needs of individuals, communities and populations. (S)</p> <p>1.6.3 Integrates knowledge of maximizing sustainability, food and water waste, reusable/ biodegradable items, local and</p>	<p>1.6 Applies knowledge of social, psychological and environmental aspects of eating and food. (S)</p>

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		participatory activities, as well as developing critical thinking through the evaluation of community nutrition case studies in different contexts around the globe.	<p>1.7 Integrates the principles of cultural competence within own practice and when directing services. (D)</p> <p>1.15 * Applies knowledge of nutritional health promotion and disease prevention for individuals, groups and populations. (S)</p> <p>1.16* Gains a foundational knowledge on public and global health issues and nutritional needs.</p>	<p>global produce sourcing and access to food. (S)</p> <p>1.6.4 Analyzes the environmental factors affecting access to services and/or adequate nutrition. (S)</p> <p>1.7.1 Demonstrates knowledge of the cultural competence models. (K)</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. (S)</p> <p>1.7.4 Identifies and implements strategies to address cultural biases and differences. (D)</p> <p>1.15.3 Examines the influence of the determinants of health on health and wellness. (S)</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. (K)</p> <p>1.16.2 Examines the impact of global food supply and sustainability and related factors. (K)</p> <p>1.16.3 Examines how globalizing processes impact nutrition, nutrition education and nutrition related diseases in developing countries. (K)</p>	<p>1.16*Gains a foundational knowledge on public and global health issues and nutritional needs. (K)</p>

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			<p>2.1 Applies a framework to assess, develop, implement and evaluate products, programs and services. (D)</p> <p>2.2 Selects, develops and/or implements nutritional screening tools for individuals, groups or populations. (D)</p> <p>2.3 Utilizes the nutrition care process with individuals, groups or populations in a variety of practice settings. (D)</p> <p>3.4 Applies and demonstrates an understanding of agricultural practices and processes. (S)</p>	<p>2.1.3 Creates a work plan or project plan to implement nutritional programs and services or launch products. (D)</p> <p>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)</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>2.2.4 Prioritizes care based on results of screening considering complexity of care needs. (D)</p> <p>2.3.9 Identifies signs and symptoms of nutrient deficiencies or excesses. (D)</p> <p>2.3.10 Determines barriers that might influence a client/patient's nutritional status. (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>2.1* Applies a framework to assess, develop, implement and evaluate products, programs and services. (D)</p> <p>3.4 Applies and demonstrates an understanding of agricultural practices and processes. (S)</p>

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			<p>4.1* Utilizes program planning steps to develop, implement monitor and evaluate community and population programs. (D)</p> <p>4.2 Engages in legislative and regulatory activities that address community, population and global nutrition health and nutrition policy. (D)</p> <p>5.1 * Demonstrates leadership skills to guide practice. (D)</p> <p>5.2 * Applies principles of organization management. (D)</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> <p>4.1.2 Conducts community and population-Based assessments considering all relevant factors. (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>4.2.1 Interprets legal terminology used to establish nutrition regulations and policies for populations. (K)</p> <p>4.2.2 Navigates governmental, intergovernmental and nongovernmental organizations to promote nutrition legislation and regulations that address public, population and global nutrition health. (D)</p> <p>4.2.3 Analyzes political interests and their impact on program development, goals and objectives. (D)</p> <p>5.1.5 Reflects on situations and critically evaluates outcomes and possible alternate courses of action. (D)</p> <p>5.2.2 Aligns plans with the organizational strategic plan, mission and vision. (D)</p>	<p>4.1* Utilizes program planning steps to develop, implement monitor and evaluate community and population programs. (D)</p>

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			<p>5.3* Applies project management principles to achieve project goals and objectives. (D)</p> <p>6.1 Incorporates critical thinking skills in practice. (D)</p> <p>7.2 Uses effective communication, collaboration and advocacy skills. (D)</p>	<p>5.3.1 Leads the development and completion of a project plan and budget. (D)</p> <p>5.3.2 Identifies the project strengths, weaknesses, opportunities and threats. (D)</p> <p>6.1.1 Considers multiple factors when problem solving. (D)</p> <p>6.1.3 Engages in reflective practice to promote change and continuous learning. (D)</p> <p>7.2.3 Participates in advocacy activities to change or promote new legislation and regulation. (D)</p>	<p>5.3* Applies project management principles to achieve project goals and objectives. (D)</p>
<p>Medical Nutrition Therapy and Pathophysiology (3 cr.)</p> <p>NUTR 6010</p> <p>Revised alignment</p>	<p>Undergraduate: NUTR 4158, NUTR 4042; NUTR 4165, NUTR 4169</p>	<p>The course focuses on the integration of the theories and principles of medical nutrition therapy into clinical practice. Case studies will be used to integrate and apply knowledge of nutrition, dietetics, metabolism, and physiology, with the goal of preparing 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.</p>	<p>1.1 Applies an understanding of environmental, molecular factors (e.g. genes, proteins, metabolites) and food in the development and management of disease. (S)</p> <p>1.2 Applies an understanding of anatomy, physiology, and biochemistry. (S)</p> <p>1.5 Applies knowledge of pathophysiology and nutritional biochemistry to physiology, health and disease. (S)</p> <p>1.8* Applies knowledge of pharmacology to recommend, prescribe and administer medical nutrition therapy. (S)</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. (K)</p> <p>1.2.1 Analyzes the impact of food and nutrition on physiological processes. (S)</p> <p>1.2.2 Integrates knowledge of anatomy, physiology, and biochemistry to make decisions related to nutrition care. (S)</p> <p>1.5.1 Examines nutritional biochemical indicators specific to the disease process. (K)</p> <p>1.8.1 Identifies the classifications of nutraceutical pharmacological agents and the action of the body. (K)</p>	<p>1.2 Applies an understanding of anatomy, physiology, and biochemistry. (S)</p>

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			<p>1.9* Applies an understanding of the impact of complementary and integrative nutrition on drugs, disease, health and wellness. (S)</p> <p>2.5* Prescribes, recommends and administers nutrition-related pharmacotherapy. (S)</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>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>1.9* Applies an understanding of the impact of complementary and integrative nutrition on drugs, disease, health and wellness. (S)</p> <p>2.5* Prescribes, recommends and administers nutrition-related pharmacotherapy. (S)</p>

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				delivery of safe and effective nutrition care. (D) 6.3.4 Analyzes and formulates a professional opinion based on the current research and evidence-based findings and experiential learning. (D)	
Nutrition Assessment Diagnosis (3) NUTR 6013, Revised alignment	Undergraduate: NUTR 4158 NUTR 4042 NUTR 4165 NUTR 4166 NUTR 4169	The course focuses on the analyses of advanced skills and 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 determine the degree of malnutrition will be discussed.	1.1 Applies an understanding of environmental, molecular factors (e.g. genes, proteins, metabolites) and food in the development and management of disease. (S) 1.2 Applies an understanding of anatomy, physiology, and biochemistry. (S) 1.5 Applies knowledge of pathophysiology and nutritional biochemistry to physiology, health and disease. (S) 1.6 Applies knowledge of social, psychological and environmental aspects of eating and food. (S) 1.7 Integrates the principles of cultural competence within own practice and when directing services. (D)	1.1.5 Identifies the influence of food consumption on the development of diseases. (K) 1.2.2 Integrates knowledge of anatomy, physiology, and biochemistry to make decisions related to nutrition care. (S) 1.5.1 Examines nutritional biochemical indicators specific to the disease process. (K) 1.5.2 Interprets and analyzes the effect of diet, fluids, electrolytes and nutritional status on the development and progress of the disease process. (S) 1.6.1 Formulates food and nutrition services considering psychological and social factors to meet the needs of individuals, communities and populations. (S) 1.6.2 Articulates the impact of nutritional health on psychiatric disorders. (S) 1.7.3 Identifies challenges that arise when different cultures, values, beliefs and experiences exist between clients/patients	1.5 Applies knowledge of pathophysiology and nutritional biochemistry to physiology, health and disease. (S)

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			<p>1.8* Applies knowledge of pharmacology to recommend, prescribe and administer medical nutrition therapy. (S)</p> <p>2.2 Selects, develops and/or implements nutritional screening tools for individuals, groups or populations. (D)</p> <p>2.3 Utilizes the nutrition care process with individuals, groups or populations in a variety of practice settings. (D)</p>	<p>and nutrition and dietetics professionals. (S)</p> <p>1.8.3 Identifies potential drug and food interactions based on physiological responses to pharmacological agents and takes appropriate actions. (S)</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>2.3.1 Selects and implements nutrition assessment tools for individuals, groups or populations. (D)</p> <p>2.3.3 Conducts a nutrition focused physical exam. (D)</p> <p>2.3.6 Collects, assesses and interprets anthropometric measures and body composition.</p> <p>2.3.7 Orders, collects and interprets biochemical tests. (D)</p> <p>2.3.9 Identifies signs and symptoms of nutrient deficiencies or excesses. (D)</p> <p>2.3.10 Determines barriers that might influence a client/patient's nutritional status. (D)</p> <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. (D)</p> <p>2.3.13 Analyzes and synthesizes nutrition assessment data to inform nutrition</p>	<p>1.8 *Applies knowledge of pharmacology to recommend, prescribe and administer medical nutrition therapy. (S)</p>

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			<p>2.5* Prescribes, recommends and administers nutrition-related pharmacotherapy. (S)</p> <p>6.2 * Applies scientific methods utilizing ethical research practices when reviewing, evaluating and conducting research. (D)</p>	<p>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>2.5.2 Demonstrates awareness of food and drug interactions. (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>2.5.8 Applies the principles of safe drug administration. (S)</p> <p>2.5.9 Monitors the response and the effects of the nutrition related drugs on the individual and takes the required action to make modifications or adjustments. (S)</p> <p>2.5.10 Consults and refers/transfers client/patient to the appropriate health professional when client/patient's needs are beyond personal competence or professional scope of practice. (S)</p> <p>6.2.1 Identifies, explains and applies the steps of the scientific method and processes. (D)</p>	

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			6.3 Applies current research and evidence-informed practice to services. (D)	6.3.2 Critically examines and interprets current research and evidence-informed practice findings to determine the validity, reliability and credibility of information. (D)	
Nutrition Education and Counseling (3 cr.) NUTR 6012 Revised alignment	Undergraduate: NUTR 4170	This course discusses evidence-based communication strategies, following the principles of cultural sensitivity, used for group and individual practice settings. Includes hands-on practice activities to develop interviewing skills and application of education and behavior change theories in educational interventions and written materials. Emphasis on how to present complex information to diverse groups, to identify barriers to learning and adjustments of educational interventions. Methods to evaluate effectiveness of counseling and education interventions are discussed.	1.6 Applies knowledge of social, psychological and environmental aspects of eating and food. (S) 1.7 Integrates the principles of cultural competence within own practice and when directing services. (D) 1.11 Applies knowledge of medical terminology when communicating with individuals, groups and other health professionals. (D) 1.15* Applies knowledge of nutritional health promotion and disease prevention for individuals, groups and populations. (S)	1.6.1 Formulates food and nutrition services considering psychological and social factors to meet the needs of individuals, communities and populations. (S) 1.7.1 Demonstrates knowledge of the cultural competence models. (K) 1.7.3 Identifies challenges that arise when different cultures, values, beliefs and experiences exist between clients/patients and nutrition and dietetics professionals. (S) 1.7.4 Identifies and implements strategies to address cultural biases and differences. (D) 1.7.5 Applies culturally sensitive approaches and communication skills. (D) 1.7.6 Develops awareness of one's own personal beliefs, values and biases to better serve clients/patients of different cultures and backgrounds. (S) 1.11.1 Interprets and communicates medical terminology to non-health professional audiences. (D) 1.15.1 Recognizes and communicates the cause of disease and nutrition risks. (K)	1.7.3 Identifies challenges that arise when different cultures, values, beliefs and experiences exist between clients/patients and nutrition and dietetics professionals. (S)

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			<p>2.3 Utilizes the nutrition care process with individuals, groups or populations in a variety of practice settings. (D)</p> <p>2.4* Implements or coordinates nutritional interventions for individuals, groups or populations. (S)</p>	<p>1.15.2 Identifies, prioritizes and implements health risk reduction strategies for individuals, groups and populations. (S)</p> <p>1.15.3 Examines the influence of the determinants of health on health and wellness. (S)</p> <p>1.15.4 Designs food and nutrition activities for various audiences considering factors relevant to individuals, groups and communities. (S)</p> <p>1.15.5 Applies behavior change theories for nutritional health promotion and disease prevention. (S)</p> <p>2.3.8 Analyzes diagnostic test results relevant to nutrition (e g. diagnostic imaging related to fluoroscopy, swallowing evaluation, enteral feeding tube placement). (D)</p> <p>2.3.13 Analyzes and synthesizes nutrition assessment data to inform nutrition diagnosis(es) and nutritional plan of care. (D)</p> <p>2.4.6 Applies education theories, adult learning, pedagogy and education principles when developing, modifying, delivering or implementing education materials. (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>2.4.10 Translates basic to advanced food and nutrition science knowledge into understandable language tailored to the audience. (D)</p>	<p>2.3 Utilizes the nutrition care process with individuals, groups or populations in a variety of practice settings. (D)</p>

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			4.1* Utilizes program planning steps to develop, implement, monitor and evaluate community and population programs. (D)	<p>2.4.13 Assesses client/patient's nutritional needs and appropriateness for the recommended counseling or therapy. (D)</p> <p>2.4.15 Identifies the indications, contraindications, benefits, risks and limitations of the counseling or therapy. (K)</p> <p>2.4.16 Demonstrates understanding of transference and counter transference in the therapeutic relationship. (K)</p> <p>2.4.17 Demonstrates awareness of various appropriate counseling techniques. (K)</p> <p>2.4.18 Evaluates effectiveness of the counseling or therapy and makes modifications as required. (D)</p> <p>2.4.19 Refers/transfers client/patient to appropriate health professionals when counseling therapy or client/patient's mental health issues are beyond personal competence or professional scope of practice. (D)</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> <p>4.1.2 Conducts community and population-based assessments considering all relevant factors. (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>4.1.6 Evaluates the program using measurement indicators and outcomes. (D)</p>	

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			7.2 Uses effective communication, collaboration and advocacy skills. (D)	7.2.4 Selects mode of communication appropriate to the messaging to meet the needs of the audience. (D)	7.2.4 Selects mode of communication appropriate to the messaging to meet the needs of the audience. (D)
Pathophysiology of Life Span (3 cr.) NUTR 6011 Revised alignment	Undergraduate: NUTR 4042, NUTR 4166, NUTR 4169, NUTR 4045	The course discusses the life stages of infancy, childhood, adolescence, pregnancy, and older adulthood from physiological, environmental, and behavioral perspectives. 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 of different nutrition-related conditions across the lifespan will be discussed.	Interim Report, 2021 (Syllabi revised) 1.1 Applies an understanding of environmental, molecular factors (e.g. genes, proteins, metabolites) and food in the development and management of disease. (S) 1.5 Applies knowledge of pathophysiology and nutritional biochemistry to physiology, health, and disease. (S) 1.6 Applies knowledge of social, psychological, and environmental aspects of eating and food. (S) 1.7 Integrates the principles of cultural competence within own practice and when directing services. (D) 1.8 * Applies knowledge of pharmacology to recommend, prescribe and administer medical nutrition therapy. (S)	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. (K) 1.5.4 Analyzes the correlation between mental health conditions and nutritional health. (S) 1.6.4 Analyzes the environmental factors affecting access to services and/or adequate nutrition. (S) 1.7.2 Applies knowledge of foods, cultural foods, eating patterns and food trends. (S) 1.7.3 Identifies challenges that arise when different cultures, values, beliefs and experiences exist between clients/patients and nutrition and dietetics professionals. (S) 1.7.6 Develops awareness of one's own personal beliefs, values and biases to better serve clients/patients of different cultures and backgrounds. (S) 1.8.2 Demonstrates understanding of pharmacokinetics, absorption, clearance, drug metabolism, latency period, drug and	1.5 Applies knowledge of pathophysiology and nutritional biochemistry to physiology, health, and disease. (S)

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			<p>1.9* Applies an understanding of the impact of complementary and integrative nutrition on drugs, disease, health, and wellness. (S)</p> <p>1.13* Demonstrates computer skills and uses nutrition informatics in the decision-making process. (D)</p> <p>1.14 Integrates knowledge of nutrition and physical activity in the provision of nutrition care across the life cycle. (D)</p> <p>2.5* Prescribes, recommends, and administers nutrition-related pharmacotherapy. (S)</p>	<p>supplement metabolism, accumulation, half-life, and routes of administration. (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>1.13.1 Analyzes appropriate data in electronic format to make best decisions related to nutrition and diet. (S)</p> <p>1.13.2 Evaluates accuracy and reliability when accessing and evaluating nutrition information in electronic format. (S)</p> <p>1.14.1 Evaluates, integrates and communicates nutritional requirements across the life cycle. (D)</p> <p>1.14.2 Identifies nutritional risk factors across the life cycle. (D)</p> <p>1.14.3 Teaches the benefits of physical activity across the life cycle to individuals, groups and populations. (D)</p> <p>1.14.4 Explains and takes into consideration how nutrients, nutritional supplements and hydration influence physical activity and wellness. (K)</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</p>	<p>1.14 Integrates knowledge of nutrition and physical activity in the provision of nutrition care across the life cycle. (D)</p>

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				<p>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>2.5.6 Prescribes, recommends and administers nutrition-related pharmacotherapy adhering to the professional standards and evidence-informed practice. (S)</p> <p>2.5.7 Applies the standard of practice, legislation, organizational policies and evidence-informed practices for prescribing. (S)</p> <p>2.5.8 Applies the principles of safe drug administration. (S)</p> <p>2.5.9 Monitors the response and the effects of the nutrition related drugs on the individual and takes the required action to make modifications or adjustments. (S)</p> <p>2.5.10 Consults and refers/transfers client/patient to the appropriate health professional when client/patient's needs are beyond personal competence or professional scope of practice. (S)</p>	
Research Project (3 cr.)	Undergraduate: NUTR 4198,	The course focuses on designing and carrying out	1.1 Applies an understanding of environmental, molecular factors (e.g.	1.1.1 Analyzes the usefulness and limitations of epidemiological, clinical and	

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NUTR 6110	<p>MATE 3026</p> <p>Graduate: Research Methods in Nutrition and Dietetics NUTR 6002 (3)</p> <p>Advanced Data Analysis and Experimental Design MATE 6686 (3 cr.)</p>	a research project, presentation of the results and its application in the practice of Nutrition and Dietetics. Opportunities to students will be provided to gain experience conducting research in Nutrition and Dietetics. Students will develop and carry out a research project that will be disseminated in an oral presentation. Research experience will be under the supervision of a faculty member.	<p>genes, proteins, metabolites) and food in the development and management of disease. (S)</p> <p>1.10 * Applies knowledge of math and statistics. (S)</p> <p>1.11 Applies knowledge of medical terminology when communicating with individuals, groups and other health professionals. (D)</p> <p>5.3* Applies project management principles to achieve project goals and objectives.</p> <p>6.1 Incorporates critical thinking skills in practice. (D)</p> <p>6.1 Incorporates critical thinking skills in practice. (D)</p>	<p>other study designs and identifies trends in diet and disease. (S)</p> <p>1.1.3 Communicates epidemiological evidence related to the relationship between diet and the development of disease. (S)</p> <p>1.10.1 Chooses appropriate statistical methods, performs statistical analysis and interprets results in various data analysis situations. (S)</p> <p>1.10.2 Communicates information on statistical methods, results and interpretation, both orally and in writing. (S)</p> <p>1.11.1 Interprets and communicates medical terminology to non-health professional audiences. (D)</p> <p>1.11.2 Uses acceptable medical abbreviations and appropriate medical terminology in all forms of communication. (D)</p> <p>5.3.3 Identifies and manages potential and real risks to the plan, individuals or organization. (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>6.1.1 Considers multiple factors when problem solving. (D)</p>	

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			<p>6.2* Applies scientific methods utilizing ethical research practices when reviewing, evaluating and conducting research. (D)</p> <p>6.3 Applies current research and evidence-informed practice to services. (D)</p> <p>7.1 Assumes professional responsibilities to provide safe, ethical and effective nutrition services. (D)</p> <p>7.2 Uses effective communication, collaboration and advocacy skills. (D)</p>	<p>6.2.5 Collects and retrieves data using a variety of methods (qualitative, quantitative) and technologies. (D)</p> <p>6.2.6 Analyzes research data using appropriate data analysis techniques (qualitative, quantitative, mixed). (D)</p> <p>6.2.7 Translates and communicates research findings and conclusions through a variety of media. (D)</p> <p>6.3.1 Uses research terminology when communicating with other professionals and publishing research. (D)</p> <p>7.1.8 Maintains confidentiality and security in the sharing, transmission, storage and management of protected health information. (D)</p> <p>7.2.4 Selects mode of communication appropriate to the messaging to meet the needs of the audience. (D)</p>	<p>6.1 Incorporates critical thinking skills in practice. (D)</p>
<p>Advanced Concepts in Nutrition NUTR 6113 (3cr.)</p> <p>Revised alignment</p>	<p>Graduate: Research Methods in Nutrition and Dietetics NUTR 6002 (3)</p> <p>Advanced Data Analysis and Experimental Design MATE 6686 (3)</p>	<p>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 face-to-face, hybrid, and online. Courses can be offered in Spanish or English.</p>	<p>1.1 Applies an understanding of environmental, molecular factors (e.g., genes, proteins, metabolites) and food in the development and management of disease. (S)</p>	<p>1.1.2 Demonstrates general understanding of nutrition and genetics, as it relates to health conditions. (K)</p> <p>1.1.3 Communicates epidemiological evidence related to the relationship between diet and the development of disease. (S)</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. (K)</p>	

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			<p>1.2 Applies an understanding of anatomy, physiology, and biochemistry. (S)</p> <p>1.5 Applies knowledge of pathophysiology and nutritional biochemistry to physiology, health and disease. (S)</p> <p>1.10 * Applies knowledge of math and statistics. (S)</p> <p>1.13 * Demonstrates computer skills and uses nutrition informatics in the decision-making process. (D)</p> <p>1.15 * Applies knowledge of nutritional health promotion and disease prevention for individuals, groups and populations. (S)</p> <p>4.1 * Utilizes program planning steps to develop, implement, monitor and evaluate community and population programs. (D)</p> <p>4.2 Engages in legislative and regulatory activities that address community, population and global nutrition health and nutrition policy. (D)</p>	<p>1.2.1 Analyzes the impact of food and nutrition on physiological processes. (S)</p> <p>1.5.1 Examines nutritional biochemical indicators specific to the disease process. (K)</p> <p>1.10.1 Chooses appropriate statistical methods, performs statistical analysis and interprets results in various data analysis situations. (S)</p> <p>1.13.1 Analyzes appropriate data in electronic format to make best decisions related to nutrition and diet. (S)</p> <p>1.13.4 Uses electronic databases to obtain nutrition information and evaluate credible sources in decision making. (D)</p> <p>1.15.3 Examines the influence of the determinants of health on health and wellness. (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> <p>4.2.3 Analyzes political interests and their impact on program development, goals and objectives. (D)</p>	

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			<p>5.1 * Demonstrates leadership skills to guide practice. (D)</p> <p>5.2 * Applies principles of organization management. (D)</p> <p>6.1 Incorporates critical thinking skills in practice. (D)</p> <p>6.3 Applies current research and evidence-informed practice to services. (D)</p>	<p>5.1.5 Reflects on situations and critically evaluates outcomes and possible alternate courses of action. (D)</p> <p>5.2.20 Models behaviors that maximize group participation by consulting, listening and communicating clearly. (D)</p> <p>6.1.1 Considers multiple factors when problem solving. (D)</p> <p>6.1.3 Engages in reflective practice to promote change and continuous learning. (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>6.1 Incorporates critical thinking skills in practice. (D)</p> <p>6.3 Applies current research and evidence-informed practice to services.</p>
<p>Clinical Nutrition Supervised Experiential Learning (3 cr.)</p> <p>NUTR 6014</p> <p>Revised alignment</p>	<p>Undergraduate: NUTR 4165 NUTR 4169 NUTR 4166 or equivalent.</p> <p>Graduate: Medical Nutrition Therapy and Pathophysiology NUTR 6010 (3)</p>	<p>This course will provide 270 hours of supervised experiential learning experiences in clinical of institutionalized patients and outpatient clinics. The purpose of the course is to provide the student with the opportunity to apply knowledge and skills in the clinical area in a real scenario. Learning experiences are offered off campus under the supervision of a preceptor or licensed nutritionist and dietitian.</p>	<p>Interim Report, 2021 (Syllabi revised)</p> <p>1.11 Applies knowledge of medical terminology when communicating with individuals, groups and other health professionals. (D)</p> <p>1.13 Demonstrates computer skills and uses nutrition informatics in the decision-making process. (D)</p>	<p>1.11.2 Uses acceptable medical abbreviations and appropriate medical terminology in all forms of communication. (D)</p> <p>1.13.1 Analyzes appropriate data in electronic format to make best decisions related to nutrition and diet. (S)</p> <p>1.13.2 Evaluates accuracy and reliability when accessing and evaluating nutrition information in electronic format. (S)</p> <p>1.13.3 Operates nutrition informatics systems in practice. (D)</p> <p>1.13.4 Uses electronic databases to obtain nutrition information and evaluate credible sources in decision making. (D)</p>	<p>1.13* Demonstrates computer skills and uses nutrition informatics in the decision-making process. (D)</p>

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			<p>2.2 Selects, develops and/or implements nutritional screening tools for individuals, groups, or populations. (D)</p> <p>2.3 Utilizes the nutrition care process with individuals, groups, or populations in a variety of practice settings. (D)</p>	<p>1.13.5 Uses technology and informatics skills proficiently to aggregate data and enhance practice and client/patient care. (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>2.3.1 Selects and implements nutrition assessment tools for individuals, groups or populations. (D)</p> <p>2.3.2 Interviews client/patient to collect subjective information considering the determinants of health. (D)</p> <p>2.3.3 Conducts a nutrition focused physical exam. (D)</p> <p>2.3.4 Takes a food and nutrition related medical history. (D)</p> <p>2.3.5 Assesses physical activity and history of physical activity. (D)</p> <p>2.3.6 Collects, assesses and interprets anthropometric measures and body composition.</p> <p>2.3.7 Orders, collects and interprets biochemical tests. (D)</p> <p>2.3.8 Analyzes diagnostic test results relevant to nutrition (e.g. diagnostic imaging related to fluoroscopy, swallowing evaluation, enteral feeding tube placement). (D)</p> <p>2.3.9 Identifies signs and symptoms of nutrient deficiencies or excesses. (D)</p>	<p>2.2 Selects, develops and/or implements nutritional screening tools for individuals, groups, or populations. (D)</p> <p>2.3 Utilizes the nutrition care process with individuals, groups, or populations in a variety of practice settings. (D)</p>

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				<p>2.3.10 Determines barriers that might influence a client/patient's nutritional status. (D)</p> <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. (D)</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>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>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>	

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			2.4* Implements or coordinates nutritional interventions for individuals, groups, or populations. (D)	<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>2.3.26 Documents all elements of the nutrition care process following professional standards and organizational policies. (D)</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>	

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				2.4.4 Considers and applies all relevant factors when recommending the use of oral nutritional supplements. (D) 2.4.5 Refers/transfers care to relevant professionals when client/patient needs or required interventions are beyond personal competence or professional scope of practice. (D) 2.4.8 Develops or modifies nutrition education materials or delivery methods to meet the needs of the audience. (D) 2.4.13 Assesses client/patient's nutritional needs and appropriateness for the recommended counseling or therapy. (D) 2.4.14 Applies counseling principles and evidence-informed practice when providing individual or group sessions. (D) 2.4.19 Refers/transfers client/patient to appropriate health professionals when counseling therapy or client/patient's mental health issues are beyond personal competence or professional scope of practice. (D)	
			7.1 Assumes professional responsibilities to provide safe, ethical and effective nutrition services. (D) 7.2 Uses effective communication, collaboration, and advocacy skills. (D)	7.1.8 Maintains confidentiality and security in the sharing, transmission, storage and management of protected health information. (D) 7.2.4 Selects mode of communication appropriate to the messaging to meet the needs of the audience. (D)	7.1 Assumes professional responsibilities to provide safe, ethical and effective nutrition services. (D)
Community Nutrition Supervised	Undergraduate; NUTR 4170 NUTR 4175	This course will provide 180 hours of supervised experiential learning experiences in the	1.6 Applies knowledge of social, psychological and environmental aspects of eating and food. (S)	1.6.4 Analyzes the environmental factors affecting access to services and/or adequate nutrition. (S)	

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Experiential Learning (2 cr.) NUTR 6115	NUTR 4176 or equivalent Graduate: Global Nutrition NUTR 6111 (3)	facilities that serve the community. The purpose of the course is to provide the student with the opportunity to apply knowledge and skills in the community area in a real scenario. Learning experiences are offered in practice sites off campus under the supervision of preceptors or licensed Nutritionists and Dietitians.	1.7 Integrates the principles of cultural competence within own practice and when directing services. (D) 1.11 Applies knowledge of medical terminology when communicating with individuals, groups and other health professionals. (D) 1.14 Integrates knowledge of nutrition and physical activity in the provision of nutrition care across the life cycle. (D) 1.15* Applies knowledge of nutritional health promotion and disease prevention for individuals, groups and populations. (S) 2.1 * Applies a framework to assess, develop, implement and evaluate products, programs and services. (D)	1.7.4 Identifies and implements strategies to address cultural biases and differences. (D) 1.7.5 Applies culturally sensitive approaches and communication skills. (D) 1.11.1 Interprets and communicates medical terminology to non-health professional audiences. (D) 1.14.1 Evaluates, integrates and communicates nutritional requirements across the life cycle. (D) 1.14.3 Teaches the benefits of physical activity across the life cycle to individuals, groups and populations. (D) 1.14.4 Explains and takes into consideration how nutrients, nutritional supplements and hydration influence physical activity and wellness. (K) 1.15.4 Designs food and nutrition activities for various audiences considering factors relevant to individuals, groups and communities. (S) 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)	1.7 Integrates the principles of cultural competence within own practice and when directing services. (D) 1.11 Applies knowledge of medical terminology when communicating with individuals, groups and other health professionals. (D) 1.15* Applies knowledge of nutritional health promotion and disease prevention for individuals, groups and populations. (S)

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			<p>2.2 Selects, develops and/or implements nutritional screening tools for individuals, groups or populations. (D)</p> <p>2.3 Utilizes the nutrition care process with individuals, groups or populations in a variety of practice settings. (D)</p> <p>2.4* Implements or coordinates nutritional interventions for individuals, groups or populations. (D)</p>	<p>2.1.2 Designs nutritional products, programs or services that promote consumer nutritional health, dimensions of wellness and lifestyle management. (D)</p> <p>2.2.3 Leads the implementation of nutrition screening tools in collaboration with other health professionals. (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>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* Implements or coordinates nutritional interventions for individuals, groups or populations. (D)</p>

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			<p>2.5* Prescribes, recommends and administers nutrition-related pharmacotherapy. (S)</p> <p>3.4 Applies and demonstrates an understanding of agricultural practices and processes. (S)</p> <p>4.1 * Utilizes program planning steps to develop, implement, monitor and evaluate community and population programs. (D)</p>	<p>2.4.12 Evaluates effectiveness of nutrition education and makes modifications as required. (D)</p> <p>2.4.14 Applies counseling principles and evidence-informed practice when providing individual or group sessions. (D)</p> <p>2.4.19 Refers/transfers client/patient to appropriate health professionals when counseling therapy or client/patient's mental health issues are beyond personal competence or professional scope of practice. (D)</p> <p>2.5.7 Applies the standard of practice, legislation, organizational policies and evidence-informed practices for prescribing. (S)</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>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>4.2.2 Navigates governmental, intergovernmental and nongovernmental organizations to promote nutrition</p>	<p>4.2 Engages in legislative and regulatory activities</p>

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			<p>4.2 Engages in legislative and regulatory activities that address community, population and global nutrition health and nutrition policy. (D)</p> <p>5.2 * Applies principles of organization management. (D)</p> <p>5.5 Develops and leads implementation of risk management strategies and programs. (D)</p> <p>7.2 Uses effective communication, collaboration and advocacy skills. (D)</p>	<p>legislation and regulations that address public, population and global nutrition health. (D)</p> <p>5.2.18 Prioritizes activities to effectively manage time and workload. (D) Motivation and Recognition 5.2.19 Promotes team involvement and values the skills of each member. (D) 5.2.20 Models behaviors that maximize group participation by consulting, listening and communicating clearly. (D) 5.2.21 Takes innovative approaches to build support and maintain a diverse workforce. (D) 5.2.22 Coaches and advises team leaders on resolving differences or dealing with conflict. (D)</p> <p>5.5.1 Assesses potential and real risks to an individual, group and or organization. (D)</p> <p>7.2.2 Works with and facilitates intraprofessional and interprofessional collaboration and teamwork. (D)</p>	<p>that address community, population and global nutrition health and nutrition policy. (D)</p> <p>7.2 Uses effective communication, collaboration and advocacy skills. (D)</p>
<p>Foodservice Management Supervised Experiential Learning (3 cr.)</p> <p>NUTR 6116</p>	<p>Undergraduate:</p> <p>NUTR 4075 NUTR 4076 NUTR 4085 NUTR 4086</p>	<p>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</p>	<p>1.3 Applies knowledge of microbiology and food safety. (S)</p>	<p>1.3.1 Applies food safety principles of microbiological food spoilage and strategies for controlling microbial growth. (S) 1.3.2 Implements key principles and practices to make foods safe for consumption at all stages during the flow of food. (S)</p>	

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Revised alignment	Graduate: Foodservice Management NUTR 6112 (3)	with the opportunity to apply knowledge and skills in food service management in a health care setting. Experiences are offered in practice sites that may be off campus, under the supervision of preceptors or a licensed Nutritionist and Dietitian	<p>1.4 Integrates knowledge of chemistry and food science as it pertains to food and nutrition product development and when making modifications to food. (S)</p> <p>1.6 Applies knowledge of social, psychological and environmental aspects of eating and food. (S)</p> <p>1.10 * Applies knowledge of math and statistics. (S)</p> <p>1.12 Demonstrates knowledge of and is able to manage food preparation techniques. (D)</p> <p>1.13* Demonstrates computer skills and uses nutrition informatics in the decision-making process. (D)</p> <p>3.1* Directs the production and distribution of quantity and quality food products. (D)</p>	<p>1.4.3 Evaluates the chemical nature and composition of food-on-food quality, acceptability and compatibility. (S)</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. (S)</p> <p>1.10.3 Applies math skills to perform food and nutrition calculations. (S)</p> <p>1.12.1 Demonstrates understanding of safe work habits and safety hazards and employs preventive safety measures. (K) 1.12.2 Converts recipes and ingredients based on client/patient's preferences or dietary needs. (D) 1.12.4 Evaluates recipes using sensory evaluation methods. (D)</p> <p>1.13.4 Uses electronic databases to obtain nutrition information and evaluate credible sources in decision making. (D)</p> <p>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)</p>	1.12 Demonstrates knowledge of and is able to manage food preparation techniques. (D)

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			<p>3.2* Oversees the purchasing, receipt and storage of products used in food production and services. (D)</p> <p>3.3 Applies principles of food safety and sanitation to the storage, production and service of food. (D)</p> <p>5.1 * Demonstrates leadership skills to guide practice. (D)</p> <p>5.2* Applies principles of organization management. (D)</p>	<p>3.1.8 Investigates and optimizes opportunities to reduce the environmental carbon footprint of foodservice operations and to enhance sustainability. (D)</p> <p>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)</p> <p>3.2.7 Applies the relationship between forecasting and production as it pertains to recipe needs and organizational demand. (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>5.1.5 Reflects on situations and critically evaluates outcomes and possible alternate courses of action. (D)</p> <p>Planning</p> <p>5.2.1 Establishes operational plan considering budget, inventory control, labor and regular daily tasks. (D)</p> <p>5.2.2 Aligns plans with the organizational strategic plan, mission and vision. (D)</p> <p>Organizing</p> <p>5.2.3 Assigns responsibilities to various team members according to scope of practice and personal competence. (D)</p>	<p>3.2* Oversees the purchasing, receipt and storage of products used in food production and services. (D)</p> <p>3.3 Applies principles of food safety and sanitation to the storage, production and service of food. (D)</p> <p>5.1* Demonstrates leadership skills to guide practice. (D)</p>

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				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) 5.2.10 Understands and respects roles and responsibilities of interprofessional team members. (D) Controls 5.2.11 Collects, understands and analyzes financial data to support fiscally responsible decision making. (D) 5.2.12 Conducts cost effectiveness and cost benefit analyses to identify ways to meet budget priorities. (D) 5.2.14 Sets controls to analyze the progress and effectiveness of the operational plan and budget. (D) 5.2.15 Collects and analyzes data to evaluate outcomes and determine if established goals and objectives are met. (D) 5.2.16 Reevaluates the plan to make modifications to ensure positive outcomes and that goals and objectives are met. (D) Time Management	

Course Title, Code & Credits	Prerequisites	Course Description	ACEND'S Future Education Model Graduate Degree Competencies (K=know; S=show; D=does) (SYLLABLES approved VPAAR-UPR)	Submitted, ACEND Interim Report September -15-2022	
				Curricular Map	Competency Assessment Table
			<p>5.2.17 Applies principles of time management to monitor and enhance personal productivity and productivity of others. (D)</p> <p>5.2.18 Prioritizes activities to effectively manage time and workload. (D)</p> <p>Motivation and Recognition</p> <p>5.2.19 Promotes team involvement and values the skills of each member. (D)</p> <p>5.2.20 Models behaviors that maximize group participation by consulting, listening and communicating clearly. (D)</p> <p>5.2.21 Takes innovative approaches to build support and maintain a diverse workforce. (D)</p> <p>5.2.22 Coaches and advises team leaders on resolving differences or dealing with conflict. (D)</p> <p>5.4 Leads quality and performance improvement activities to measure evaluate and improve a program services products and initiatives. (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 monitor's impact. (D)</p> <p>5.4.4 Develops, implements and communicates an ongoing measuring and</p>	<p>5.4 Leads quality and performance improvement activities to measure evaluate and improve a program services products and initiatives. (D)</p>

Course Title, Code & Credits	Prerequisites	Course Description	ACEND'S Future Education Model Graduate Degree Competencies (K=know; S=show; D=does) (SYLLABLES approved VPAAR-UPR)	Submitted, ACEND Interim Report September -15-2022	
				Curricular Map	Competency Assessment Table
			<p>5.5 Develops and leads implementation of risk management strategies and programs. (D)</p> <p>7.2 Uses effective communication, collaboration and advocacy skills. (D)</p>	<p>monitoring system to ensure ongoing quality and performance improvement. (D) 5.4.5 Applies change management theories and principles to effectively implement change. (D)</p> <p>5.5.2 Identifies and takes action to manage, reduce and or eliminate risk to self, others and the organization. (D)</p> <p>7.2.1 Applies effective and ethical communication skills and techniques to achieve desired goals and outcomes. (D)</p>	

Appendix G – Graduate Catalog (Revised)

**University of Puerto Rico
Río Piedras Campus
Deanship for Graduate Studies and Research**

Graduate Catalog



2024-2025

**University of Puerto Rico
Río Piedras Campus
College of Natural Sciences**

Address: 17 Ave Universidad Ste. 1701, San Juan, PR 00925-2537

Phone: 787-764-0000 ext. 88581

Email:

Director, Nutrition and Dietetics Program

Brenda Toro Enríquez, Ph.D., LND

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Director, Graduate Program

Nivia A. Fernández Hernández, Ed.D., RDN, LND, CFCS

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Webpage: <https://natsci.uprrp.edu/nutricion/prospective-msnd-students/>

DEGREE: **Master of Science in Nutrition and Dietetics with Supervised Experiential Learning (Distance Education Program)**

OFFERING MODALITY: Distance Program

ACCREDITATION: The **Accreditation Council for Education in Nutrition and Dietetics** (ACEND®) is the Academy of Nutrition and Dietetics' (AND) accrediting agency for education programs preparing students for careers as registered dietitian nutritionists.

FACULTY:

Colón Morales, Edgardo, Ph. D., Assistant Professor (Contract)
Correa Matos, Nancy, Ph.D., RDN, Associate Professor
Fernández Hernández, Nivia A. Ed.D., RDN, LND, CFCS, Full Professor
Mir Franqui, Celia, Ed.D., RDN, LND, Full Professor
Pérez Hernández, María Eglee, Ph.D., Full Professor
Pérez Velázquez, Carmen M., DrPH, RDN, LND, Assistant Professor (Contract)
Pinto López, Elsa, Ph.D., RDN, LND, Full Professor
Rivera Sánchez, Sasha M., Ph.D., Assistant Professor
Toro Enríquez, Brenda, Ph.D., LND, Full Professor

ADMISSION CRITERIA:

UPR Río Piedras Campus general admission criteria for graduate programs

1. Bachelor's degree (or its equivalent) from an accredited or recognized university or college.
2. General Grade Point Average (GPA) equal or greater than 3.00 on a scale of 4.00. Each program will address exceptional cases according to each applicant's merits.
3. Be able to communicate orally and in writing in two languages, one of which should be Spanish or English.
4. The UPR-RP will provide the academic instance or unit that will determine and inform programs of the proficiency of their students in the second or third language (if the program requires a third language).

Specific Admission criteria for the MSND-SEL program

Admission criteria 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 Pathways

PATHWAY ONE

Direct entry admission for students with an ACEND's accredited bachelor's degree in Nutrition and Dietetics and receive a Verification Statement upon completion. Must comply with UPR-Río Piedras Campus general admission criteria for graduate programs.

As an accredited Future Education Model Graduate Program, the MSND-SEL provides the required Nutrition and Dietetics coursework and supervised experiential learning to meet ACEND's competency requirements to be eligible to sit in national exam to become a Registered Dietitian Nutritionist (RDN). Moreover, complies with Puerto Rico's Law 82 of 1972⁹, that requires a bachelor's degree in Nutrition or Dietetics to be eligible to sit for the local licensure exam and, upon approval, practice as Licensed Nutritionist Dietitian (LND).

⁹ Law No. 82 of May 31, 1972, as amended, rules the practice of Nutrition and Dietetics in Puerto Rico, creates the Board of Nutritionists and Dietitians, and establishes the College of Nutritionists and Dietitians of Puerto Rico. Article 6.b, Requirements to obtain license specifies the following⁹: Bachelor degree awarded with major in nutrition or dietetics of an accredited higher education or college institutions by the Higher Education Council (known today as Board of Postsecondary Institutions) or by one of the regional organisms of national accreditation and have completed an internship in nutrition or dietetics in a hospital or accredited institution for such training, or in substitution of this internship, possess a master or doctor degree in nutrition or dietetics of a higher education or college institution recognized by the Higher Education Council or by one of the regional organisms of national accreditation. <https://bvvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/82-1972.pdf>

Because the program is committed to the ACEND's master's-level graduate expectations, as Pathway One, the MSND-SEL will provide a "direct entry admission" for students with a bachelor's degree in Nutrition and Dietetics, accredited by ACEND. Graduates of an accredited program receive a Verification Statement, an official document that certifies successful completion of the bachelor's degree and the requirements of an ACEND accredited program.

Admission criteria are the following:

- BS in Nutrition and Dietetics, accredited by ACEND, with Verification Statement upon completion
- Minimum 3.00 Grade Point Average on a 4.00-point scale
- Three letters of recommendation, two from university professors
- Short essay (500 words) indicating how pursuing graduate studies will contribute to your development.
- Spanish and English proficiency
- Students for whom English is a second language must obtain a minimum score in TOEFL exam of 550 (paper-based) or 213 (computer-based). Exam must have been taken no more than five-years prior.

For approved Foreign Degrees: <https://www.cdrnet.org/RDNeligibility>

- If the degree is an ACEND-accredited Foreign Dietitian Education (FDE) program and was issued a Verification Statement, the FDE Verification Statement must be presented (NOTE: the FDE degree has already been evaluated as equivalent to a U.S. degree by ACEND).

PATHWAY TWO

For students with a bachelor's degree in Nutrition and Dietetics. Must comply with UPR-Río Piedras Campus general admission criteria for graduate programs.

Admission criteria are the following:

- Bachelor's degree in Nutrition and Dietetics or equivalent from an authorized and accredited higher education institution in the US
- Undergraduate courses that constitute the Alternate Second major in Nutrition and Dietetics
- Must have approved with C or more undergraduate courses
- Minimum 3.00 Grade Point Average on a 4.00-point scale
- Minimum 3.00 Grade Point Average in science and math courses on a 4.00-point scale
- Three letters of recommendation, two from university professors
- Short essay (500 words) indicating how pursuing graduate studies will contribute to your development
- Spanish and English proficiency

- Students for whom English is a second language must obtain a minimum score in TOEFL exam of 550 (paper-based) or 213 (computer-based). Exam must have been taken no more than five-years prior.

To be eligible and prior to submitting an admission application to the graduate program:

- The Program will determine if any additional coursework is needed to complete undergraduate requirements. A course-by-course evaluation is required by corresponding institutional academic departments.
- Conditioned admission:
 - If at the deadline for admission application to the graduate program the Alternate Second Major requirements are in progress, upon evaluation of an official transcript, the Program will determine eligibility for a conditioned admission to the graduate program.
 - Students with conditioned admission are allowed up to a maximum of 9 credits of required undergraduate courses.
 - Students with conditioned admission are allowed a maximum extension of time to the first semester of the graduate program.
 - During the allowed extension of time, the student must complete successfully all undergraduate requirements for official admission to the graduate program.
 - Students under conditioned admission who do not comply will all undergraduate requirements during the maximum extension of time of the first semester will be dismissed from the graduate program.

For approved Foreign Degrees: <https://www.cdrnet.org/RDNeligibility>

- If the degree is an ACEND-accredited Foreign Dietitian Education (FDE) program and was issued a Verification Statement, the FDE Verification Statement must be presented (NOTE: the FDE degree has already been evaluated as equivalent to a U.S. degree by ACEND).
- If the degree is from outside the US, it is required to have the official transcript evaluated by an approved Foreign Degree Evaluation Agency.
<https://www.eatrightpro.org/acend/students-and-advancing-education/international-students/foreign-degree-evaluation-agencies>
 - ✓ After receiving the evaluation report, contact the MSND-SEL program director to request a review of the official transcript and foreign degree evaluation report.
 - ✓ The program will determine if any additional coursework is needed to complete program undergraduate requirements. A course-by-course evaluation is required by corresponding institutional academic departments.

PATHWAY THREE

For students who have completed an undergraduate degree in:

- ✓ **science other than Nutrition and Dietetics**
- ✓ **fields not related to science**

and need a Second Major in Nutrition and Dietetics. Must comply with UPR-Río Piedras Campus general admission criteria for graduate programs.

Admission criteria are the following:

- Bachelor's degree or equivalent from an authorized and accredited higher education institution in the US.
- Undergraduate courses that constitute the Alternate Second major in Nutrition and Dietetics
- Must have approved with C or more undergraduate courses
- Minimum 3.00 Grade Point Average on a 4.00-point scale
- Minimum 3.00 Grade Point Average in science and math courses on a 4.00-point scale
- Three letters of recommendation, two from university professors
- Short essay (500 words) indicating how pursuing graduate studies will contribute to your development.
- Spanish and English proficiency
- Students for whom English is a second language must obtain a minimum score in TOEFL exam of 550 (paper-based) or 213 (computer-based). Exam must have been taken no more than five-years prior.

To be eligible and prior to submitting an admission application to the graduate program:

- Admission to the Alternate Second Major is required for a course-by-course evaluation by corresponding institutional academic departments.
- Also, if any additional coursework is needed to complete program undergraduate requirements.
- Conditioned admission:
 - If at the deadline for admission application to the graduate program the Alternate Second Major requirements are in progress, upon evaluation of an official transcript, the Program will determine eligibility for a conditioned admission to the graduate program.
 - Students with conditioned admission are allowed up to a maximum of 9 credits of required undergraduate courses.
 - Students with conditioned admission are allowed a maximum extension of time to the first semester of the graduate program.
 - During the allowed extension of time, the student must complete successfully all undergraduate requirements for official admission to the graduate program.
 - Students under conditioned admission who do not comply will all undergraduate requirements during the maximum extension of time of the first semester will be dismissed from the graduate program.

For approved Foreign Degrees: <https://www.cdrnet.org/RDNeeligibility>

- If the degree is from outside the US, it is required to have the official transcript evaluated by an approved Foreign Degree Evaluation Agency
<https://www.eatrightpro.org/acend/students-and-advancing-education/international-students/foreign-degree-evaluation-agencies>
- After receiving the evaluation report, contact the MSND-SEL program director to request a review of the official transcript and foreign degree evaluation report.

- The Program will determine if any additional coursework is needed to complete undergraduate requirements. A course-by-course evaluation is required by corresponding institutional academic departments.

As established by the accrediting agency, the Graduate Future Education Model programs may allow admission through Pathway Three: students that completed their undergraduate degree in science other than Nutrition and Dietetics and in fields not related to science. As an admission criterion to the MSND-SEL, this students' population is required a set of undergraduate courses and prerequisites. Because the program is committed with the ACEND's master's-level graduate expectations, the MSND-SEL will admit students through this third pathway with prior approval of the *Second Major in Nutrition and Dietetics*.

An Alternate Second Major in Nutrition and Dietetics (41 credits of NUTR courses) has been established for students interested to apply to the MSND-SEL with bachelors' degrees other than an accredited BS in Nutrition and Dietetics, under the BS in Nutrition and Dietetics Program of the Río Piedras Campus, accredited by ACEND. Some Nutrition (NUTR) courses have prerequisites that must be approved previous to register these courses. Upon approval of the Alternate Second Major and compliance of all other admission criteria, students will be admitted to the graduate program. The "Verification Statement" (VS), which certifies adherence with academic and ACEND's undergraduate requirements, will be deferred until satisfactory completion of the MSND-SEL program graduation requirements. Students who, during the course of the graduate program, opt not to continue studies toward the degree, in order to receive the VS, approval of all courses that constitute the regular Second Major in Nutrition and Dietetics (46 credits of NUTR courses) will be required.

Students admitted to the Alternate Second Major sit in the daytime, presential-regular programming of courses and sections offered for the BS in Nutrition and Dietetics. It is estimated that the student will take up to at least two years and a half to approve the Alternate Second Major requirements with concurrent or previous approval of science and math courses prerequisites. Once the candidate is admitted, an official evaluation of the academic record or official transcript will be performed by corresponding institutional academic departments. The evaluation of courses for equivalencies will determine requirements that need to be approved.

According to the Academic Change Proposal to the BS in Nutrition and Dietetics Program, submitted to comply with ACEND's requirements¹⁰, currently under

¹⁰ **Executive Summary** -The purpose of the proposal is to implement curricular changes to support the continuous improvement of the Bachelor of Science (BS) in Nutrition and Dietetics offered by the College of Natural Sciences, Río Piedras Campus of the University of Puerto Rico (UPR-RPC). Significant curricular changes respond to recommendations presented in the Site Visit Report received on March 2019 from the Accreditation Council for Education in Nutrition and Dietetics (ACEND) (Appendix A). The specific recommendation states: "*The program must provide evidence that the program can realistically be completed in four years in order to base the program's materials and advertising on this timeframe*". (Page 11 of the report). Although the proposal is responding to accreditation recommendations, an analysis to redistribute courses, credits and contact hours to impact the time-to-degree of five or more years to four years was made. Also, a transitional curricular sequence was developed for students enrolled in the current sequence, ensuring course content and formative experiences.

consideration, an Alternate *Second Major in Nutrition and Dietetics for Students Interested in Admission to the MS in Nutrition and Dietetics with Supervised Experiential Learning* will be the following¹¹:

*Alternate Second Major in Nutrition and Dietetics for Students Interested in Admission to the MS in Nutrition and Dietetics with Supervised Experiential Learning			
Nutrition and Dietetics (Approved with C or higher)		Credits	Prerequisites
NUTR 4031	Food Science	3	CHEM 3001
NUTR 4040 [NUTR 4041+ NUTR 4045]	Principles of Human Nutrition [Human Nutrition I (3cr) + Applied Human Nutrition (1cr)]	3	CHEM 3001 BIOL I-II 3101-3102
NUTR 4050 [NUTR 4055 + NUTR 4068]	Introduction to Foodservice Systems [Food Purchasing for FSS (2cr) + Equipment and Design for FSS Facilities (2cr)]	3	NUTR 4031
NUTR 4075	Management for Foodservice Systems	3	NUTR 4050
NUTR 4076	Applied Concepts of Management for Foodservice Systems	2	NUTR 4075
NUTR 4086	Menu for Foodservice Systems	3	NUTR 4040, NUTR 4075 (Prerequisite NUTR 4050) and previous or concurrent BIOL 3705
NUTR 4158	Human Biochemistry	3	CHEM 3015, BIOL 3711-3712, NUTR 4040
NUTR 4159	Human Biochemistry Laboratory	1	CHEM 3015, BIOL 3711-3712, NUTR 4040, concurrent with NUTR 4158
NUTR 4160 [NUTR 4042]	Human Nutrition II [Human Nutrition II (3cr)]	4	NUTR 4158, NUTR 4159
NUTR 4161 [NUTR 4165]	Clinical Dietetics	4	NUTR 4158, NUTR 4159, concurrent with NUTR 4162 previous or concurrent with NUTR 4160
NUTR 4163 [NUTR 4166]	Advanced Clinical Dietetics	4	NUTR 4160, NUTR 4161, NUTR 4162
NUTR 4162 [NUTR 4169]	Applied Clinical Dietetics	1	Previous or concurrent with NUTR 4160 4 cr. and concurrent with NUTR 4161 Clinical Dietetics 4 cr.
NUTR 4170	Methods for Nutrition Education	2	NUTR 4031, NUTR 4040
NUTR 4180 [NUTR 4176]	Community Nutrition	3	NUTR 4170
NUTR 4198	Methods for Nutrition Research	2	NUTR 4040, MATE 3026
Total		41	
<p>* Upon approval of the Alternate Second Major in Nutrition and Dietetics and compliance with all other admission criteria, students will be admitted to the graduate program. The "Verification Statement" (VS), which certifies adherence with academic and ACEND's undergraduate requirements, will be deferred until satisfactory completion of the MSND-SEL program graduation requirements. Students who, during the course of the graduate program, opt not to continue studies toward the degree, in order to receive the VS, approval of all courses that constitute the regular Second Major in Nutrition and Dietetics (46 credits of NUTR courses) will be required.</p>			

¹¹ Previous courses' codes in parenthesis

Some NUTR courses have prerequisites that must be approved previous to register. These courses are the following:

Prerequisites of NUTR courses (Approved with C o higher)		Credits	Prerequisites
BIOL 3102	General Biology II	4	
BIOL 3101	General Biology I	4	CHEM 3001
BIOL 3711	Human Biology I	3	BIOL 3102
BIOL 3712	Human Biology II	3	BIOL 3711
BIOL 3705	Microbiology	4	BIOL 3101
CHEM 3001-3002	General Chemistry I y II	4-4	MATE 3171-3172
CHEM 3015	Organic Chemistry Compendium	4	CHEM 3002
MATH 3026	Introduction to Statistics with the Computer	3	MATE 3171-3172 or MATH 3018

SUGGESTED CURRICULAR SEQUENCE Alternate Second Major in Nutrition and Dietetics for Students Interested in Admission to the MS in Nutrition and Dietetics with Supervised Experiential Learning With Prerequisites of Science and Math Courses Approved							
FIRST YEAR				SECOND YEAR			
First Semester		Second Semester		First Semester		Second Semester	
Courses	Creds.	Courses	Creds.	Courses	Creds.	Courses	Creds.
NUTR 4031	3	NUTR 4050	3	NUTR 4161	4	NUTR 4086	3
NUTR 4040	3	NUTR 4170	2	NUTR 4162	1	NUTR 4076	2
		NUTR 4158	3	NUTR 4075	3	NUTR 4163	4
		NUTR 4159	1	NUTR 4160	4	NUTR 4180	3
		NUTR 4198	2				
Sub-total	6	Sub-total	11	Sub-total	12	Sub-total	12
TOTAL CREDITS for second major in Nutrition and Dietetics: 41							

SUGGESTED CURRICULAR SEQUENCE							
Second Major in Nutrition and Dietetics							
For students who opt not to continue studies toward the degree, in order to receive the VS, approval of all courses that constitute the Second Major in Nutrition and Dietetics will be required.							
With Prerequisites of Science and Math Courses Approved							
FIRST YEAR				SECOND YEAR			
First Semester		Second Semester		First Semester		Second Semester	
Courses	Creds.	Courses	Creds.	Courses	Creds.	Courses	Creds.
NUTR 4031	3	NUTR 4050	3	NUTR 4161	4	NUTR 4086	3
NUTR 4225	1	NUTR 4170	2	NUTR 4162	1	NUTR 4076	2
NUTR 4040	3	NUTR 4158	3	NUTR 4075	3	NUTR 4163	4
		NUTR 4159	1	NUTR 4160	4	NUTR 4501	1
		NUTR 4198	2	NUTR 4180	3	NUTR 4175	1
Sub-total	7	Sub-total	11	Sub-total	15	Sub-total	11
SUMMER				SUMMER			
				NUTR 4503	1		
				NUTR 4502	1		
TOTAL CREDITS for Second Major in Nutrition and Dietetics: 46 (5 additional credits than Alternate Sequence)							

SUGGESTED CURRICULAR SEQUENCE							
Second Major in Nutrition and Dietetics							
Including All Prerequisites of Science and Math Courses							
FIRST YEAR				SECOND YEAR			
First Semester		Second Semester		First Semester		Second Semester	
Courses	Creds.	Courses	Creds.	Courses	Creds.	Courses	Creds.
QUIM 3001	4	QUIM 3002	4	BIOL 3711	3	BIOL 3712	3
BIOL 3102	4	BIOL 3101	4	QUIM 3015	4	NUTR 4040	3
NUTR 4031	3	NUTR 4050	3	NUTR 4075	3	NUTR 4158	3
		MATE 3026	3			NUTR 4159	1
Sub-total	11	Subtotal	14	Subtotal	10	Subtotal	10
THIRD YEAR				FOURTH YEAR			
First Semester		Second Semester		First Semester		Second Semester	
Courses	Creds.	Courses	Creds.	Courses	Creds.	Courses	Creds.
NUTR 4162	1	NUTR 4086	3	NUTR 4180	3		
NUTR 4161	4	BIOL 3705	4				
NUTR 4160	4	NUTR 4163	4				
NUTR 4170	2	NUTR 4076	2				
NUTR 4198	2						
Subtotal	13	Subtotal	13	Subtotal	3		
TOTAL CREDITS: 74							

LANGUAGE PROFICIENCIES

It is a requirement for admission that all applicants be proficient in both, Spanish and English.

DOCUMENTS REQUIRED FOR ADMISSION APPLICATION:

- Application for Admission to Graduate Studies, Río Piedras Campus (UPR), electronic format.
- Three letters of recommendation, two from university professors, in electronic format
- Three official transcripts with conferred degrees. Initially, may submit a copy to open the application file.
- Verification Statement or Foreign Dietitian Education Verification Statement, in electronic format, if applicable.
- Evaluation Report by an approved Foreign Degree Evaluation Agency, if applicable.
- Short essay (500 words), included in the Application for Admission to Graduate Studies, indicating how pursuing graduate studies will contribute to your development.
- Official results of the TOEFL exam, taken no more than five-years prior to application date.

GRADUATION REQUIREMENTS:

At the UPR Río Piedras Campus, to qualify as a degree candidate, students must comply with the following requirements:

1. Satisfactory completion of program's coursework with minimum GPA of 3.00 or more.
2. Complete graduation requirements within the length of time established by the University.
3. Not having debts with the institution.
4. Official submission of the Graduation Request to the Registrar's Office during the semester in which is expected to complete program's requirements and, in any case, later than the stipulated date established in the Academic Calendar for the specific semester. These requests become official once graduation fee is paid, which is non-reimbursable.
5. Degree recommendation by the College-specific program and the institutional administration.

Students who complete the 45 credits with a minimum grade point average of 3.0 or more and completed the minimum of 1,000 hours of supervised experiential learning will be recommended to the Office of the Registrar to be granted the master's degree. After the degree is conferred by the University of Puerto Rico, Río Piedras Campus, the Verification Statement will be provided to program graduates by the MSND-SEL Program director, which verifies completion of requirements necessary to sit for the Commission on Dietetic Registration (CDR) credentialing exam.

PROGRAM OF STUDY:

Curricular Components			
Core Courses			
Course code	Course Title		Credits
MATH 6686	Advanced Data Analysis and Experimental Design		3
NUTR 6002	Research Methods in Nutrition and Dietetics		3
NUTR 6003	Nutrient Metabolism		3
NUTR 6004	Ethics and Professionalism		1
		Subtotal	10
Specialty Courses			
Course code	Course Title		Credits
NUTR 6112	Foodservice Management		3
NUTR 6013	Nutrition Assessment Diagnosis		3
NUTR 6010	Medical Nutrition Therapy and Pathophysiology		3
NUTR 6012	Nutrition Education and Counseling		3
NUTR 6111	Global Nutrition		3
NUTR 6011	Pathophysiology of Life Span		3
NUTR 6113	Advanced Concepts in Nutrition		3
		Subtotal	21
Research Project			
Course code	Course Title		Credits
NUTR 6110	Research Project		3
NUTR 6110	Research Project (Continuation)		0
		Subtotal	3
Supervised Experiential Learning (SEL)			
Course code	Course Title	Contact hours (Each semester)	Credits
NUTR 6014	Clinical Nutrition Supervised Experiential Learning	270	3
NUTR 6115	Community Nutrition Supervised Experiential Learning	180	2
NUTR 6116	Foodservice Management Supervised Experiential Learning	270	3
		Subtotal	8
Electives			
Course code	Course Title		Credits
n/a	Electives		3
		Subtotal	3
		Total	45

COURSES DESCRIPTION:

MATH 6686	Advanced Data Analysis and Experimental Design	3
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This course will introduce the student to commonly used methods in Experimental Design and Statistical Data Analysis, with applications in Biology, Chemistry, Environmental Sciences, Nutrition, etc. The student will use statistical programming languages for performing the analysis of data sets using the techniques studied in the course. This course may be offered face-to-face, hybrid and online.

En este curso se introducirá al estudiante a métodos comúnmente usados en las áreas de Diseño Experimental y Análisis Estadístico de Datos, aplicados a disciplinas tales como Biología, Química, Ciencias Ambientales, Nutrición, entre otras. Los estudiantes utilizarán lenguajes de programación estadística para realizar análisis de datos siguiendo las técnicas estudiadas en el curso. Este curso se ofrecerá presencial, híbrido y en línea.

NUTR 6002	Research Methods in Nutrition and Dietetics	3
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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 and the use of biomarkers. Students are expected to develop a research proposal to serve as part of their research project requirement. This course may be offered face-to-face, hybrid and online. Courses can be offered in Spanish or English.

Discusión de los diseños de investigación, conceptos de investigación y terminología asociadas a la investigación en nutrición. Se enfatiza la interpretación de los hallazgos de investigación y el rol de las investigaciones en la práctica de nutrición y dietética. Discusión de la validez y confiabilidad de los instrumentos y el uso de biomarcadores. Los estudiantes desarrollarán una propuesta de investigación que será parte del requisito del proyecto de investigación. Este curso se ofrecerá presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6003	Nutrient Metabolism	3
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The course focuses on the biochemical function and metabolism of macronutrients, micronutrients and bioactive components in foods in different tissues and organs and its impact in health and disease states. Recent research in nutrient deficiency and excess and its implications in prevention and treatment of different health and disease states will be reviewed. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English.

El curso se enfoca en las funciones bioquímicas y metabolismo de los macronutrientes, micronutrientes y componentes bioactivos de los alimentos en los diferentes órganos y tejidos, y su impacto en la salud y enfermedad. Se revisarán las investigaciones recientes sobre la deficiencia y el exceso de nutrientes y sus implicaciones en la prevención y el tratamiento de diferentes estados de salud y enfermedad. Este curso se podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6004	Ethics and Professionalism	1
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This course discusses the various components of professionalism in Nutrition and Dietetics with special emphasis on practice according to ethical and legal frameworks. Includes the discussion of personal attributes that comprise professionalism such as effective communication, interpersonal relations, commitment to lifelong learning and cultural competence. Analysis of the Standards of Practice in various practice settings and of the Scope of Practice for the nutrition and dietetics professional. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English.

El curso discute los diferentes componentes del profesionalismo en nutrición y dietética con énfasis en la práctica alineada a los principios éticos y legales. Se analizan las características personales que reflejan el profesionalismo como la comunicación efectiva, el compromiso con el aprendizaje durante toda la vida, relaciones interpersonales y competencia cultural. Se discuten los estándares de la práctica en diferentes escenarios y el alcance de las funciones en la práctica. Este curso se podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6010	Medical Nutrition Therapy and Pathophysiology	3
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The course focuses on the integration of the theories and principles of medical nutrition therapy into clinical practice. Case studies will be used to integrate and apply knowledge of nutrition, dietetics, metabolism, and physiology, with the goal of preparing 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 may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English.

El curso se enfoca en la integración de las teorías y principios del cuidado médico nutricional en la práctica clínica. Se utilizan los estudios de casos en la integración y aplicación de los conocimientos en nutrición, dietética, metabolismo y fisiología, con la meta de desarrollar estudiantes que puedan planificar y manejar efectivamente 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 presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6011	Pathophysiology of Life Span	3
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The course discusses the life stages of infancy, childhood, adolescence, pregnancy, and older adulthood from physiological, environmental, and behavioral perspectives. 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 of different nutrition-related conditions across the lifespan will be discussed. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English.

En el curso se discuten las etapas de la infancia, niñez, adolescencia, embarazo y del adulto mayor desde las perspectivas fisiológicas, ambientales y de comportamiento. 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 la prevención y tratamiento para diferentes condiciones de salud asociadas a la nutrición. Este curso se podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6012	Nutrition Education and Counseling	3
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This course discusses evidence-based communication strategies, following the principles of cultural sensitivity, used for group and individual practice settings. Includes hands-on practice activities to develop interviewing skills and application of education and behavior change theories in educational interventions and written materials. Emphasis on how to present complex information to diverse groups, to identify barriers to learning and adjustments of educational interventions. Methods to evaluate effectiveness of counseling and education interventions are discussed. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English.

Este curso discute las estrategias de comunicación basadas en evidencia, siguiendo los principios de sensibilidad cultural, para uso en la práctica a nivel individual y grupal. Se realizarán actividades prácticas para desarrollar destrezas de entrevistas y para la aplicación de las teorías de modificación de conducta en las intervenciones educativas y materiales escritos. Se enfatiza en la presentación de información compleja a grupos con características diversas, la identificación de las barreras para el aprendizaje y la modificación de las intervenciones educativas. Discusión de los métodos para evaluar la efectividad de las intervenciones de consejería y educativas. Este curso se podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6013	Nutrition Assessment Diagnosis	3
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The course focuses on the analyses of advanced skills and 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 determine the degree of malnutrition will be discussed. This course may be offered face-to-face, hybrid and online. Courses can be offered in Spanish or English.

El curso se enfoca en el análisis de las destrezas avanzadas y los métodos de evaluación nutricional para individuos y en las comunidades. Medición e interpretación del examen físico enfocado en nutrición y se evaluará la interacción de medicamentos y los parámetros de laboratorios. El diagnóstico de malnutrición y las deficiencias de nutrientes, incluyendo las características clínicas que se utilizan para determinar el nivel de malnutrición serán discutidas. Este curso se podrá ofrecer en modalidad presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6110	Research Project	3
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The course focuses on designing and carrying out a research project, presentation of the results and its application in the practice of Nutrition and Dietetics. Opportunities to students will be provided to gain experience conducting research in Nutrition and Dietetics. Students will develop and carry out a research project that will be disseminated in an oral presentation. Research experience will be under the supervision of a faculty member. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English. Constitutes a full-time academic load for the student.

El curso se enfoca en el diseño y conducción de un proyecto de investigación, la presentación de los resultados y su aplicación a la práctica de nutrición y dietética. Proveerá al estudiante oportunidades para obtener experiencia en el desarrollo de una investigación en el área de nutrición y dietética. Los estudiantes desarrollarán y realizarán un proyecto de investigación, que darán a conocer mediante una presentación oral. La experiencia de investigación se llevará a cabo bajo la supervisión de un facultativo. Este curso se podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés. Constituye carga académica completa para el estudiante.

NUTR 6111	Global Nutrition	3
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Fundamentals of health promotion and disease prevention using food and nutrition for individuals and communities, with emphasis on global food systems, international 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 developing critical thinking through the evaluation of community nutrition case studies in different contexts around the globe. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English.

Fundamentos de la promoción de la salud y prevención de enfermedades utilizando alimentos y nutrición para individuos y comunidades, con énfasis en los sistemas globales de alimentación, poblaciones internacionales, sus culturas y contextos geopolíticos. Conceptos y métodos para cernimiento en la comunidad y programas de investigación como evidencia para desarrollar, implantar y evaluar políticas de salud pública y nutrición utilizando actividades participativas, de formación de destrezas, así como el desarrollo de pensamiento crítico a través de la evaluación de estudios de caso de nutrición en la comunidad alrededor del mundo. Este curso se podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6112	Foodservice Management	3
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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 in an effective and efficient way. The course focuses on the competencies of the professional in Nutrition and Dietetics working in the institutional or commercial foodservice sector. Through emphasis on teamwork, case studies, and projects, students will demonstrate their competency in applying dietetic skills in a foodservice system. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English.

Discusión de los procesos 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 profesionales en nutrición y dietética que trabajan en el sector institucional o comercial de 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 podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6113	Advanced Concepts in Nutrition	3
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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 face-to-face, hybrid, and online. Courses can be offered in Spanish or English.

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 podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés.

NUTR 6014	Clinical Nutrition Supervised Experiential Learning	270	3
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This course will provide 270 hours of supervised experiential learning experiences in clinical of institutionalized patients and outpatient clinics. The purpose of the course is to provide the student with the opportunity to apply knowledge and skills in the clinical area in a real scenario. Learning experiences are offered off campus under the supervision of a preceptor or licensed nutritionist and dietitian. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English. Constitutes a full-time academic load for the student.

Este curso proveerá 270 horas de experiencia de aprendizaje supervisada en el área clínica de pacientes institucionalizados y en las clínicas externas. El objetivo del curso es proveer al estudiante la oportunidad de aplicar los conocimientos y destrezas en el área clínica en un escenario real. Las experiencias de aprendizaje se llevan a cabo fuera del recinto bajo la supervisión de un preceptor o profesional de nutrición y dietética licenciado. Este curso se podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés. Constituye carga académica completa para el estudiante.

NUTR 6115	Community Nutrition Supervised Experiential Learning	180	2
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This course will provide 180 hours of supervised experiential learning experiences in the facilities that serve the community. The purpose of the course is to provide the student with the opportunity to apply knowledge and skills in the community area in a real scenario. Learning experiences are offered in practice sites off campus under the supervision of preceptors or licensed Nutritionists and Dietitians. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English. Constitutes a full-time academic load for the student.

Este curso proveerá 180 horas de experiencia de aprendizaje supervisada en las facilidades de servicio a la comunidad. El objetivo del curso es proveer al estudiante la oportunidad de aplicar las destrezas y conocimiento en el área de la comunidad en un escenario real. Las experiencias de aprendizaje se llevan a cabo fuera del recinto bajo la supervisión de un preceptor o profesional de nutrición y dietética licenciado. Este curso se podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés. Constituye carga académica completa para el estudiante.

NUTR 6116	Foodservice Management Supervised Experiential Learning	270	3
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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 skills in food service management in a health care setting. Experiences are offered in practice sites that may be off campus, under the supervision of preceptors or a licensed Nutritionist and Dietitian. This course may be offered face-to-face, hybrid, and online. Courses can be offered in Spanish or English. Constitutes a full-time academic load for the student.

Este curso provee 270 horas de práctica supervisada en la administración de sistemas de servicios de alimentos. El objetivo de la práctica es proveer al estudiante la oportunidad de aplicar las destrezas y conocimiento en el área de servicios de alimentos en un escenario real. Las actividades de práctica pueden ser ofrecidas fuera del recinto bajo la supervisión de un preceptor o profesional de nutrición y dietética licenciado. Este curso se podrá ofrecer presencial, híbrido y en línea. Los cursos se pueden ofrecer en español e inglés. Constituye carga académica completa para el estudiante.