



UNDERGRADUATE CERTIFICATE – ADDITIONAL INFORMATION FORM

This document has been updated as of 1/21 following consultation with Greg Heileman, James Hunt, Kelly Jackson, Scott Going, Sabrina Benedict-Monteverde, Alex Underwood, Ashlee Linares-Gaffer and Liz Sandoval. The primary changes reflected on this document are:

1. Change of title from *Undergraduate Didactic Program in Dietetics (DPD) Certificate Program* to **Didactic Program in Dietetics Post-baccalaureate Certificate**
2. Updated the table with required vs “supporting” coursework to reflect suggested changes.

Note: Certificate programs offered at the University of Arizona, at the undergraduate or graduate level, are not approved as eligible programs for federal student financial aid. Although students enrolled in certificate programs are not eligible for any federal student aid programs, students may be eligible for private loans, outside scholarships, and University of Arizona department funding. For more information, please see [Federal Student Financial Aid Eligibility for Programs](#).

- I. **CERTIFICATE DESCRIPTION-** provide a catalog description of this program to be used to market the certificate. Include information regarding the main content, knowledge areas, key questions to be explored, skillsets to be developed and opportunities for application of the subject matter. The description should match departmental and college websites, handouts, promotional materials, etc.

The University of Arizona offers a [Didactic Program in Dietetics \(DPD\)](#), which is nationally accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Students can complete the DPD by earning a Bachelor's of Science in Nutritional Sciences-Dietetics Option, but for those who have already completed a bachelor's degree in another area of study or at a different institution, this certificate provides a transcriptable opportunity to complete the DPD coursework without pursuing another bachelor's degree. Upon completion of the certificate, students will receive a [verification statement](#) from the DPD Program Director, verifying completion of the DPD program at the University of Arizona, according to ACEND protocol.

Possession of a DPD verification statement establishes eligibility to sit for the Nutrition and Dietetic Technician, Registered (NDTR) examination to earn the NDTR credential. Possession of a DPD verification statement also signifies eligibility to move forward in the process of earning the RDN credential. After completing this certificate program, graduates will be eligible to

apply for [ACEND accredited supervised practice programs](#) through a competitive admissions process. Those who complete an ACEND accredited supervised practice program will be eligible to sit for the [Registration Examination for Registered Dietitian Nutritionists](#), and if passed, will earn the RDN credential.

II. **PURPOSE-** discuss the primary intent of this certificate and describe what makes this program distinct from other existing programs on campus.

The purpose of this certificate is to provide a formalized method of record keeping for those pursuing or who have completed the DPD verification statement requirements as non-degree seeking students. Additionally, it will provide access to established UArizona mechanisms for student tracking, including use of an ADVIP and a program code.

*Historically through the present, students who complete the DPD program as non-degree seeking students cannot be differentiated from other non-degree seeking students in the UAccess system which has required manually tracking of student completion within the department. With the launch of the DPD program through the Arizona Online Campus, which is one of four accredited online DPD programs in the nation, the demand for the DPD program from non-degree seeking students has dramatically increased from approximately 2-3 per year to approximately 30 at this time, with the number increasing each semester. The DPD program director and academic advisors have the responsibility to keep close track and an open line of communication with all students completing our DPD program to pursue a verification statement in order to provide advising and program updates. This is an accreditation standard that we must uphold, but the rising number of students who are non-degree seeking in our DPD program has proven too unwieldy to continue to track manually. **These challenges and potential solutions have been discussed with Curricular Affairs within the past academic year (Martin Marquez and Pam Coonan), Arizona Online (Carmin Chan, Director of Student Success), and the creation of an undergraduate certificate has been recommended as the institutional mechanism to formalize tracking of these non-degree seeking students.***

The creation of a certificate program for non-degree seeking students who are pursuing the DPD program will offer the following benefits:

- *The department will be able to query UAccess to identify all of the students who are currently pursuing this pathway. This will enable more proactive communication, advising interventions that promote student retention and success, and forecast course needs.*

- *The DPD Director is required to monitor and report enrollment in our DPD program, including degree-seeking and non-degree seeking students, in order to comply with accreditation requirements and abide with the DPD program enrollment limits that have been established for our program. This certificate will enable more accurate and efficient reporting.*
- *The certificate will provide a formal record in the university system that accurately reflects who has completed the DPD program and when. This is important because former students may reach out years after completing the DPD Program to request a duplicate verification statement, and the DPD Director may be relying on inconsistent internal record keeping as a reference to produce that duplicate. Completion of a certificate will be verifiable on a transcript and will create continuity in record keeping regarding who has completed the DPD program moving forward.*

III. PROGRAM AFFILIATION – specify whether the UA offers an affiliated undergraduate program – the affiliated program may or may not have the same name as the proposed certificate.

The Department of Nutritional Sciences currently offers a B.S. in Nutritional Sciences, Dietetics subplan. This certificate will be called the Undergraduate Didactic Program in Dietetics (DPD) Certificate Program.

IV. CERTIFICATE DEMAND– *is there sufficient student demand for the certificate?*

- a. What is the anticipated student enrollment for this certificate by the third year the certificate is offered? Please provide measurable indicators of student interest in the certificate (survey results of current students or alumni) and with reference to similar programs elsewhere. Provide market analysis or other tangible evidence to support projected enrollment numbers. Curricular Affairs can provide a job posting/demand report by skills obtained/outcomes of the proposed certificate. Please contact [Martin Marquez](#) to request the report(s) for your proposal.

The anticipated student enrollment is 15-20 new students added each year. This projection is based off of actual numbers of students who are currently pursuing our DPD program as non-degree seeking students, primarily through the Arizona Online campus.

What community needs, preparation for professional certification exams, degree program recruitment, or employability enhancements will this certificate provide? Please provide evidence of feedback from potential employers regarding the value of the proposed program.

The University of Arizona offers a [Didactic Program in Dietetics \(DPD\)](#), which is nationally accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Students can complete the DPD by earning a Bachelor's of Science in Nutritional Sciences-Dietetics Option, but for those who have already completed a bachelor's degree in another area of study or at a different institution, this certificate provides an opportunity to complete the DPD coursework without pursuing another bachelor's degree. The UA certificate program is very different than many certificate programs offered throughout the U.S. as our program reflects a more robust, rigorous program that leads to a verification statement. A verification statement is required in order to be eligible to complete a supervised practice program (also known as a dietetic internship). The [verification statement](#) is provided by DPD Program Director, verifying that completion of the DPD requirements have been met through course complete at the University of Arizona; for transfer students, transfer of course credit from other institutions in addition to completion of UA DPD course requirements leads to students obtaining a verification statement.

- b. Additionally, possession of a DPD verification statement establishes eligibility to take the Nutrition and Dietetic Technician, Registered (NDTR) examination to earn the NDTR credential. After completing this certificate program, graduates will be eligible to apply for [ACEND accredited supervised practice programs](#) through a competitive admissions process. Those who complete an ACEND accredited supervised practice program will be eligible to sit for the [Registration Examination for Registered Dietitian Nutritionists](#), and if passed, will earn the RDN credential.

The NDTR and RDN have a [professional scope of practice](#), providing guidance for RDN's to offer a more advanced level of care and sometimes leadership/management of food and nutrition operations. There are many jobs for nutrition professionals which require that applicants possess the NDTR or RDN credential based on the scope of practice that is required for the role, and there are many others which indicate those credentials as preferred qualifications. Employers that prefer or sometimes require that applicants possess the NDTR credential for nutrition and food professionals include hospitals, long term care centers, school and hospital food service operations, and government programs (such as Women, Infants and Children). Employers that require applicants to possess the RDN credential for employment as a dietitian includes hospitals, long term care centers, school and hospital foodservice operations, and government funded programs (Women, Infants and Children, SNAP-ED, Senior Meal programs). There are also a wide range of career paths in industry which require that applicants possess the RDN credential including agricultural trade organizations, food and nutrition manufacturing companies, collegiate and professional sports teams, among others. Finally, all states with the exception of Arizona and Michigan, require nutrition professionals to possess NDTR or RDN credentials to qualify for state licensure or certification, and the state level credentialing is required for eligibility to work in several areas of practice, including private practice. According to the [U.S. Bureau of Labor Statistics](#)

[Occupational Outlook Handbook](#), the job outlook for dietitians and nutritionists is expected to grow by 11% much faster than average) for 2018-2028.

Will there be any collaboration with other departments or universities to maximize resources? If there is collaboration, please include a memo of support from the applicable parties.

There will not be any formal collaboration, or new collaborations, with another unit for the purposes of this certificate.

V. TARGET AUDIENCE(S)- describe the target audience(s) for this certificate and the specific audience needs this certificate aims to address. Address the relevant points below based on your target audience(s).

a. Does this certificate meet the needs of an **industry or workforce partner**? Explain the industry needs this certificate is proposing to address. Provide a list of industry partners with whom you are working and confirmation of this support.

NA

b. Does this certificate provide an **introductory pathway to an existing graduate degree**? Provide the name(s) of the degree(s).

Completion of this certificate will formally record on the university transcript when a non-degree seeking student has met the Didactic Program in Dietetics Program requirements to earn a DPD Verification Statement. The DPD program already exists within the university but verification of completion by non-degree seeking students is currently tracked manually within the Department of Nutritional Sciences and is not officially notated on the transcript. Possession of a DPD verification statement establishes eligibility to sit for the Nutrition and Dietetic Technician, Registered (NDTR) examination to earn the NDTR credential. Possession of a verification statement also signifies eligibility to move forward in the process of earning the RDN credential. After completing this certificate program, graduates will be eligible to apply for [ACEND accredited supervised practice programs](#) through a competitive admissions process. Some ACEND accredited supervised practice pathways award a graduate degree and some are strictly experiential programs which do not result in a graduate degree. There are over 260 ACEND accredited supervised practice programs that our certificate holders will be eligible to apply to, and over 60 of these offer a graduate degree as a required component of the program.

Those who complete an ACEND accredited supervised practice program will be eligible to sit for the [Registration Examination for Registered Dietitian Nutritionists](#), and if passed, will earn the RDN credential.

- c. Does this certificate serve as **professional development for the targeted audience**? Explain how this certificate will help the audience develop professionally.

The current demographic of non-degree seeking students who are pursuing the DPD program is exclusively comprised of professionals who are working in a variety of industries, but who are lacking formal dietetics education. Completion of our DPD program through this certificate program will be utilized as a professional development opportunity for professionals who want to enhance their credibility and employment prospects working in nutrition, food and healthcare settings.

- VI. CERTIFICATE REQUIREMENTS** - complete the table below to list the certificate requirements, including number of credit hours required and any special requirements for completion. Certificate requirements should include sufficient units to provide a substantive program and an appropriate level of academic rigor and in no case be less than 12 units of credit. Delete the EXAMPLE column before submitting/uploading. **Note: future changes to the curriculum originally approved for the certificate must be approved by the Undergraduate Council.**

Minimum total units required <i>*minimum 12 units</i>	Minimum 86 units 23 units
Minimum upper-division units required <i>*minimum 6 units of credit must be upper division UA coursework</i>	Minimum 41 units of credit must be upper division; minimum of 23 units of upper division credit must be UA coursework Minimum of 23 units of upper division credit must be UA coursework.
Total transfer units that may apply to the certificate.	Up to 41 units of transfer credit may apply to the certificate No transfer credit may be applied to this certificate.
List any special requirements to declare/admission to this certificate (completion of specific coursework, minimum GPA, interview, application, etc.)	Completion of a minimum bachelor's degree required for admission. Prospective applicants who do not already have a bachelors degree will be directed to our B.S. Nutritional Sciences-Dietetics degree program. The DPD Verification

	<p>Statement can only be pursued independent of a degree program if the student already possesses a bachelors degree.</p> <p>Core: 11 Nutrition courses (23 units) were moved out of the core certificate requirements to supporting coursework section.</p> <p>Complete 8 NSC courses (23 units): NSC 308 (3) Nutrition & Metabolism or NSC 408 (3) Nutritional Biology NSC 325 (4) Foundations of MNT NSC 325L (1) Foundations of MNT Lab NSC 425 (4) Medical Nutrition Therapy I NSC 435 (4) Medical Nutrition Therapy II NSC 444 (3) Community Nutrition NSC 458 (3) Food Service Organization & Management NSC 495A (1) Dietetic Internship Prep Workshop</p> <p>Complete 10 supporting sciences (34 units): CHEM 151 (4) or CHEM 141 (3) + CHEM 143 (1) General Chemistry I CHEM 152 (4) or CHEM 142 (3)+ CHEM 144 (1) General Chemistry II CHEM 241A (3) Organic Chemistry I BIOC 384 (3) Foundations in Biochemistry BIOC 385 (3) Metabolic Biochemistry SOC 350 (3) Environment, Health & Society PSIO 201 (4) Anatomy & Physiology I PSIO 202 (4) Anatomy & Physiology II MIC 205A (3) + MIC 205L (1) Microbiology MCB 181R (3) + MCB 181L (1) Introductory Biology I</p> <p>Complete 1 statistics course (3 units): PSY 230</p>
<p>Certificate requirements. List all required certificate</p>	<p>Complete 11 supporting nutrition courses (23 units):</p>

<p>requirements including core and electives. Courses listed must include course prefix, number, units, and title. Mark new coursework (New). Include any limits/restrictions needed (house number limit, etc.). Provide email(s)/letter(s) of support from home department head(s) for courses not owned by your department.</p>	<p>NSC 101 (3) Intro to Human Nutrition NSC 225 (2) Foundational Skills in Nutrition NSC 260 (3) Nutrition Communication & Scientific Literacy NSC 301 (3) Nutrition & the Life Cycle NSC 351R (3) Fundamentals of Food Science NSC 351L (1) Fundamentals of Food Science Lab NSC 358R (2) Institutional Food Management NSC 358L (1) Institutional Food Management Lab NSC 395A (2) Experiential Learning NSC 396A (1) Survey of Nutrition Careers NSC 420 (2) Nutrition Counseling & Education</p>
<p>Internship, practicum, applied course requirements (Yes/No). If yes, provide description.</p>	<p>NSC 395A- <i>Experiential Learning</i> Students complete ~40 hours of food and nutrition related work at community sites developing soft skills. NSC 351L-<i>Food Science Lab</i> Students apply concepts of food science while preparing a variety of foods.</p> <p>NSC 358R-<i>Institutional Foodservice Management Lab</i> Students gain experience working in commercial foodservice environments. NSC 444-<i>Community Nutrition</i>- Students complete projects focused on delivering nutrition education in the community. NSC 325L <i>Medical Nutrition Therapy Lab</i>- Students learn how to take anthropometric measurements and perform Nutrition Focused Physical Exams and practice with peers.</p>
<p>Additional requirements (provide description)</p>	<p>Students will be required to complete a “Certificate Completion Checkout” meeting with an advisor to verify that all requirements have been met, as well as the certificate application form to be submitted to Graduation Services.</p>
<p>Any <u>double-dipping restrictions</u> (Yes/No)? If yes, provide description.</p>	<p>No double dipping policy.</p>

**A maximum of 6 units may double-dip with a degree requirement (major, minor, General Education) or second certificate.*

VII. CURRENT COURSES—using the table below, list all existing courses included in the proposed certificate. You can find information to complete the table using the [UA course catalog](#) or [UAnalytics](#) (Catalog and Schedule Dashboard> “Printable Course Descriptions by Department” On Demand Report; right side of screen). If the courses listed belong to a department that is not a signed party to this implementation request, upload the department head’s permission to include the courses in the proposed certificate and information regarding accessibility to and frequency of offerings for the course(s). Upload letters of support/emails from department heads to the “Letter(s) of Support” field on the UAccess workflow form. Add rows to the table, as needed.

Course prefix and number (include cross-listings)	Units	Title	Course Description	Pre-requisites	Modes of delivery (online, in-person, hybrid)	Typically Offered (F, W, Sp, Su)	Dept signed party to proposal? (Yes/No)
NSC 101	3	Introduction to Human Nutrition	Current concepts and controversies in human nutrition. Carbohydrate, protein, lipids, vitamins and minerals in nutrition; and the relation of nutrition to health throughout the life cycle.	Only for students who have NOT taken NSC 170C1 (Nutrition, Food and You).	Main campus Online campus Distance campus	Main campus: Fall, Winter, Spring, Summer Online campus: Fall, Winter, Spring, Summer Distance campus: Fall	NA
NSC 225	2	Foundational Skills in Nutritional Sciences	This course will build on fundamental concepts presented in introductory nutrition courses. Extensive		Main campus Online campus Distance	Main campus: Fall, Spring Online campus: Fall, Spring Distance	NA

			practice in nutrition calculations, basic nutrition assessment, and meal planning will be utilized to apply core concepts around analyzing nutrition adequacy, food composition (macro- and micronutrient), and meal planning.		campus	campus: Fall,	
NSC 260	3	Nutrition Communication & Scientific Literacy	This course will prepare students to critically evaluate or interpret, summarize, and communicate evidence-based scientific information in a variety of public and professional venues, including but not limited to scientific conferences, public forums (e.g., social media), food demonstrations and the classroom.		Main campus Online campus Distance campus	Main campus: Fall, Spring Online campus: Fall, Spring Distance campus: Fall,	NA
NSC 308	3	Nutrition & Metabolism	Introduction to nutritional sciences and the integration of the effects of nutrients and nutritional status of metabolic and physiological functions at the cellular, tissue, organ and system level in humans as related to health and disease. Designed for nutritional		Main campus Online campus Distance campus	Main campus: Fall, Spring, Summer Online campus: Spring, Summer Distance campus: Fall,	NA

			sciences majors and those with a background in biological and chemical sciences.				
NSC 325	4	Foundations of Medical Nutrition Therapy	This course will provide the foundations for applying medical nutrition therapy through the nutrition care process. The application of basic nutrition science principles in the selection of the basic appropriate medical nutrition therapies related to the nutrition care process in obesity, and enteral and parenteral nutrition will also be investigated. Development of a knowledge base through applying the appropriate Academy of Nutrition & Dietetic Association's international standardized terminology and use of medical terminology as it relates to health and disease will also be achieved.		Main campus Online campus Distance campus	Main campus: Spring, Summer Online campus: Fall, Summer Distance campus: Fall,	NA
NSC 325L	1	Foundations of Medical Nutrition Therapy Lab	This lab provides students hands on experience with physical and diagnostic assessment of health		Main campus Online campus Distance	Main campus: Fall, Spring Online campus: Fall, Summer Distance	NA

			status. Novice skills will be developed regarding: performing a nutrition-focused physical examination, obtaining vital skills, measurement and interpretation of anthropometric measurements, body composition; physical assessment of fluid status; obtaining and assessment of respiratory and cardiac sounds; intra- and extra-oral assessment and dysphagia screening. Students will discuss and practice skill development relating to conducting and interpreting findings from a nutrition-focused physical assessment in order to develop a nutrition care plan. The lab also provides practice with patient interviewing and counseling techniques.		campus	campus: Fall,	
NSC 351R	3	Fundamentals of Food Science	Scientific principles of food production, preservation, and ingredient interactions.		Main campus Online campus Distance campus	Main campus: Fall, Summer Online campus: Fall, Summer Distance campus: Fall, Summer	NA
NSC 351L	1	Fundamentals	An introduction to the		Main	Main campus:	NA

		of Food Science Lab	food study laboratory with emphasis on development of skills and observation of phenomena during food preparation. Heavy emphasis will be placed on sanitation and cleanliness. Experiments designed to complement corresponding lecture class.		campus Online campus Distance campus	Fall, Spring Online campus: Fall, Summer Distance campus: Spring	
NSC 358R	2	Institutional Food Management	Quantity food preparation and service, factors affecting food purchasing, storage, and inventory; menu planning for institutions, management of time and labor and use of institutional equipment, equipment selection and maintenance.		Main campus	Main campus: Spring	NA
NSC 358L	1	Institutional Food Management Laboratory	The Quantity Food Production Management lab provides students the hands on experience of learning and operating quantity food production equipment and the management experience of planning, purchasing, staffing and producing a menu for a lunch operation serving 100+ meals. Students will be required to meet		Main campus	Main campus: Spring	NA

			all dress code requirements of the production facility.				
NSC 395A	2	Experiential Learning in Nutritional Sciences	This course offers an organized volunteer and work opportunity with oversight by the department and a classroom component.		Main campus Online campus Distance campus	Main campus: Fall, Spring Online campus: Fall, Distance campus: Fall	NA
NSC 396A	1	Survey of Nutrition Careers	Overview of Nutritional Science and Dietetics as a profession.		Main campus Online campus Distance campus	Main campus: Fall, Spring Online campus: Fall, Spring Distance campus: Fall	NA
NSC 408	3	Nutritional Biology	Structure and function of nutrients, digestion and metabolism of proteins, carbohydrates, lipids, vitamins and minerals; energy and maintenance of cellular functions; nutritional ecology of monogastrics and ruminants; elements of gene regulation; nutritional and hormonal influences on gene		Main campus Online campus Distance campus	Main campus: Fall, Spring Online campus: Fall, Spring Distance campus: Fall	NA

			expression.				
NSC 420	2	Nutrition Education & Counseling	Application of counseling & learning theories with individuals and groups in clinical and community settings. Includes discussion and experience in interviewing, counseling, dietary assessment methodology, learning activities, evaluation and documentation.		Main campus Online campus Distance campus	Main campus: Spring Online campus: Spring Distance campus:	NA
NSC 425	4	Medical Nutrition Therapy I	This class, the second in the clinical nutrition series, will build upon the Foundations in Medical Nutrition Therapy (NSC 325) course. The application of basic nutrition science principles in the selection of the appropriate medical nutrition therapies related to the nutrition care process and cardiovascular, pulmonary, endocrine, and gastrointestinal disorders will be investigated. Continued development of knowledge and skills		Main campus Online campus Distance campus	Main campus: Fall Online campus: Fall Distance campus: Fall	NA

			through applying the appropriate Academy of Nutrition & Dietetic Association's (AND) international standardized terminology and the use of medical terminology as it relates to health, disease and MNT will also be achieved.				
NSC 435	4	Medical Nutrition Therapy II	This class, the last in the clinical nutrition series, will build upon the knowledge and skills related to the nutrition care process obtained in the Medical Nutrition Therapy I (NSC 425) course. The application of basic nutrition science principles in the selection of the appropriate medical nutrition therapies related to the nutrition care process and renal, neurology, cancer, hypermetabolism/critical care, and immune disorders will be investigated. Continued development of knowledge and skills		Main campus Online campus Distance campus	Main campus: Fall Online campus: Fall Distance campus: Fall	NA

			through applying the appropriate Academy of Nutrition & Dietetic Association's (AND) international standardized terminology and the use of medical terminology as it relates to health, disease and MNT in advanced clinical scenarios will also be achieved.				
NSC 444	3	Community Nutrition	This course is an in depth look at how the RD/nutritionist works in the community, by providing hands-on experience in teaching nutrition in a community setting. The course will cover areas such as determining needs for nutrition education, public policy, various nutrition programs, funding and grant writing, and communication skills needed for various audiences.	NSC 301	Main campus Online campus Distance campus	Main campus: Fall Online campus: Fall Distance campus: Fall	NA
NSC 458	3	Food Service Organization &	Organization and management of food service systems;	NSC 358R and NSC 358L	Main campus	Main campus: Fall	NA

		Management	responsibilities of management for leadership, sanitation, maintenance, and care of food service plant and its equipment.		Online campus Distance campus	Online campus: Fall Distance campus: Fall	
NSC 495A	1	Dietetic Internship Preparation	The purpose of this course is to prepare senior Dietetic majors for the Dietetic Internship. Students will learn about the Dietetic Internship application process and what to expect during the supervised practice experience.		Main campus Online campus Distance campus	Main campus: Fall Online campus: Fall Distance campus: Fall	NA
BIOC 384	3	Foundations in Biochemistry	Structure and function of proteins, lipids, carbohydrates, and nucleic acids, with a focus on understanding the molecular function of essential biomolecules.	MCB 181R and (CHEM 142 or CHEM 152 or CHEM 105B or CHEM 162) and (CHEM 241A or CHEM 242A or CHEM 246A). BIOCBA and BIOCBS Students may not enroll	Main campus Online campus Distance campus	Main campus: Fall, Winter, Spring, Summer Online campus: Fall, Winter, Spring, Summer	N
BIOC 385	3	Metabolic Biochemistry	Fundamentals of metabolism and nucleic acid biochemistry at the cellular and organismal levels, with a focus on key pathways and	MCB 181R and (CHEM 142 or CHEM 152 or CHEM 105B or CHEM 162) and (CHEM 241A or CHEM 242A or CHEM 246A). BIOCBA and BIOCBS Students may not	Main campus Online campus Distance	Main campus: Fall, Winter, Spring, Summer Online campus: Fall, Winter, Spring,	N

			regulatory mechanisms.	enroll.	campus	Summer	
SOC 350, CHS 350 (Science Elective)	3	Environment, Health & Society	This course examines the relationships between human health and the environment from a sociological viewpoint. Using an interdisciplinary sociological perspective, we will explore the increasing number of illnesses linked to environmental contamination and disasters. Since this is a course in the social sciences, only a basic understanding of the biological and chemical nature of environmental pollution will be needed. Our focus will be on the socioeconomic production of environmental health risks and how science and public policy are contested by various stakeholders.		Main campus Online campus Distance campus	Main campus: Fall, Spring Online campus: Fall, Spring	N
PSY 230 (Statistics)	3	Psychological Measurement and Statistics	Does sleep improve memory? Does having friends improve mental health? These questions	PSY 101 or PSY 150A1; recommend prior completion of MATH 107 or 112.	Main campus Online	Main campus: Fall, Spring, Summer Online campus:	N

			<p>can be examined through controlled scientific experiments. This course will teach students the methods of statistics that are used for exploring data collected in experiments and for evaluating scientific hypotheses. Students will learn how to apply the core statistical tools used in science such as t-tests, ANOVA, regression, and Chi-square tests.</p>		<p>campus Distance campus</p>	<p>Fall, Spring, Summer</p>	
CHEM 151	4	General Chemistry I	<p>Integrated lecture-lab course designed to develop a basic understanding of the central principles of chemistry that are useful to explain and predict the properties of chemical substances based on their atomic and molecular structure. Additionally, students will be introduced to modern laboratory techniques and participate in experimental activities that promote the</p>	<p>PPL 60+ or SAT I MSS 610+ or ACT MATH 26+ or one course from MATH 108, 112, 113, 119A, 120R, 122B, 125, 129, or 223. Test scores expire after 2 years. Must not have taken CHEM 105A/106A, CHEM 151, or CHEM 161/163.</p>	<p>Main Campus</p>	<p>Main Campus: Fall, Spring, Summer</p>	<p>N</p>

			development of basic and advanced science-process skills. The course is designed for students who require a strong foundation in general chemistry, such as science and engineering majors, pre-medical and pre-pharmacy students.				
CHEM 152	4	General Chemistry II	Continuation of CHEM 151. Integrated lecture-lab course designed to develop a basic understanding of the central principles of chemistry that are useful to explain and predict the properties of chemical substances based on their atomic and molecular structure. Additionally, students will be introduced to modern laboratory techniques and participate in experimental activities that promote the development of basic and advanced science-process skills. The course is designed for students who require a strong	CHEM 151 or 141/143 or 161/163 and 1 of the following: PPL 60+ or SAT I MSS 610+ or ACT MATH 26+ or one course from MATH 108, 112, 113, 119A, 120R, 122B, 125, 129, or 223. Test scores expire after 2 years.	Main Campus	Main Campus: Fall, Spring, Summer	N

			foundation in general chemistry, such as science and engineering majors, pre-medical and pre-pharmacy students.				
CHEM 141	3	General Chemistry Lecture I: Quantitative	CHEM 141 is the first part of a two-semester lecture series introducing students to the central principles of modern chemistry using a quantitative atoms-first approach. The course is intended for students who require a strong foundation in general chemistry, rooted in a technical (mathematical) approach to the discipline. It specifically targets science and engineering majors and other students interested in a systematic development of modern chemistry.	PPL 60+ or SAT I MSS 610+ or ACT MATH 26+ or one course from MATH 108, 112, 113, 119A, 120R, 122B, 125, 129, or 223. Test scores expire after 2 years. Must not have taken CHEM 105A/106A, CHEM 151, or CHEM 161/163.	Main Campus Online Campus	Main Campus: Fall, Spring, Summer Online Campus	N
CHEM 143	1	General Chemistry Lab 1: Quantitative	CHEM 143 is the first semester of a two-semester laboratory sequence designed to provide an introduction to the central principles and practices of modern	PPL 60+ or SAT I MSS 610+ or ACT MATH 26+ or one course from MATH 108, 112, 113, 119A, 120R, 122B, 125, 129, or 223. Test scores expire after 2 years. Must not have taken CHEM	Main Campus Online Campus	Main Campus: Fall, Spring, Summer Online Campus	

			quantitative chemical analysis.	105A/106A, CHEM 151, or CHEM 161/163.			
CHEM 142	3	General Chemistry Lecture II: Quantitative Approach	CHEM 142 is the second part of a two-semester lecture series introducing students to the central principles of modern chemistry using a quantitative atoms-first approach. The course is intended for students who require a strong foundation in general chemistry, rooted in a technical (mathematical) approach to the discipline. It specifically targets science and engineering majors and other students interested in a systematic development of modern chemistry.	CHEM 151 or 141/143 or 161/163 and 1 of the following: Concurrent enrollment in UA Math 112 or PPL 60+ or SAT I MSS 610+ or ACT MATH 26+ or 1 course from MATH 112,113,120R,122B,125,129, or 223. Test scores expire after 2 years.	Main Campus Online Campus	Main Campus: Fall, Spring, Summer Online Campus	N
CHEM 144	1	General Chemistry Lab II: Quantitative	CHEM 144 is the second semester of a two-semester laboratory sequence designed to provide an introduction to the central principles and practices of modern quantitative chemical analysis.	CHEM 151 or 141/143 or 161/163. Concurrent enrollment or completion of CHEM 142 and 1 of the following: PPL 60+ or SAT I MSS 610+ or ACT MATH 26+ or one course from MATH 108, 112, 113, 119A, 120R, 122B, 125, 129, or 223. Test scores expire after 2 yrs.	Main Campus Online Campus	Main Campus: Fall, Spring, Summer Online Campus	

CHEM 241A	3	Organic Chemistry I	General principles of organic chemistry.	CHEM 105B, CHEM 142, CHEM 152 or CHEM 162.	Main Campus Online	Main Campus: Fall, Spring, Summer Online: Fall, Spring Summer Distance: Fall, Spring	N
PSIO 201	4	Anatomy & Physiology I	Study of structure and function of the human body. Topics include basic anatomical and directional terminology; fundamental concepts and principles of cell physiology; histology; the integumentary, skeletal, muscular and nervous systems; special senses. Primarily for majors in physiology, biology, and health professions.	None	Main Campus Online	Main Campus: Fall, Spring, Summer Online: Lauching spring 2021	N
PSIO 202	4	Anatomy & Physiology II	Study of structure and function of the human body. Topics include cardiovascular, lymphatic, respiratory, urinary, gastrointestinal, endocrine and reproductive systems. Primarily for majors in physiology, biology, and	PSIO 201	Main Campus Online	Main Campus: Fall, Spring, Summer Online: Launching spring 2021	N

			health professions.				
MCB 181R	3	Introductory Biology I	Introduction to biology covers fundamental principles in molecular and cellular biology and basic genetics. Emphasis is placed on biological function at the molecular level, with a focus on the structure and regulation of genes, the structure and synthesis of proteins, how these molecules are integrated into cells, and how these cells are integrated into multicellular systems. Examples stem from current research in bacteria, plants, and animals (including humans) in the areas of cell biology, genetics, molecular medicine and immunology.	PPL 40+ or SAT I MSS 560+ or ACT MATH 24+ or one course from Math 108, 112, 113, 119A, 120R, 124, 122B, 125, 129, or 223. Test scores expire after 2 years.	Main Campus Online Distance	Main Campus: Fall, Spring, Summer Online: Fall, Spring, Summer Distance: Fall, Spring, Summer	N
MCB 181L	1	Introductory Biology Laboratory I	Laboratory exercises presenting techniques and fundamental principles of modern biology. Designed to complement the information concurrently	None	Main Campus Online Campus Distance Campus	Main Campus: Fall, Spring, Summer Online Campus: Fall, Spring, Summer Distance	N

			presented in 181R.			Campus: Fall, Spring, Summer	
MIC 205A	3	Microbiology	Introduction to the diverse lifestyles of bacteria, viruses, fungi, and protozoan parasites, their importance in the biosphere, and their roles in human and animal diseases.	None	Main Campus Online Campus	Main Campus: Fall, Spring, Summer Online Campus: Launching fall 2020	N
MIC 205L	1	Biology of Microorganisms Laboratory	Laboratory techniques in introductory microbiology.	None	Main Campus Online Campus	Main Campus: Fall, Spring, Summer Online Campus: Launching fall 2020	N

VIII. NEW COURSES NEEDED – using the table below, list any new courses that must be created for the proposed program. If the specific course number is undetermined, please provide level (ie CHEM 4**). Add rows as needed. Is a new prefix needed? If so, provide the subject description so Curricular Affairs can generate proposed prefix options.

No new courses are needed for the creation of this certificate.

IX. FACULTY INFORMATION- complete the table below. If UA Vitae link is not provided/available, attach a short CV (2-3 pages) to the end of the proposal or upload to the workflow form. UA Vitae profiles can be found in the [UA directory/phonebook](#). Add rows as needed. Delete the EXAMPLE rows before submitting/uploading. **NOTE: full proposals are distributed campus-wide, posted on committee agendas and should be considered “publicly visible”.** Contact [Martin Marquez](#) if you have concerns about CV information being “publicly visible”.

Faculty Member	Course
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Amy Drescher, PhD, RDN	NSC 101, 260, 420
Ann Skulas Ray, PhD	NSC 408
Ashlee Linares-Gaffer, MS, RDN	NSC 301, 396A
Chris Mills, MS, DTR	NSC 301
Donato Romagnolo, MSc, PhD	NSC 408
Jennifer Ravia, MS	NSC 260, 395A
Jennifer Teske, PhD	NSC 308
Katelyn Barker, MS, RDN, CSO, CSOWM	NSC 101
Kayle Skorupski, MS, RDN-AP, CNSC, CSG, FAND	NSC 395A
Kelly Jackson, MS, RD	NSC 101, 225, 308
Maria Plant, DCN, RD	NSC 325, 325L, 425, 435
Mary Marian, DCN, RDN, CSO, FAND, FASPEN	NSC 325, 425, 435, 495A
Nancy Driscoll, MS, RD	NSC 101
Natalia Santos, MPH	NSC 101, 395A, 444
Patricia Sparks, PhD	NSC 351R, 358R/L, 458
Sarah Lavelle, MS, CCT	NSC 101, 301
Tedley Pihl, MS, CFS	NSC 351R/L

- X. STUDENT LEARNING OUTCOMES AND CURRICULUM MAP** – describe what students should know, understand, and/or be able to do after completing this certificate. Provided a detailed curricular map linking student outcomes to specific courses and class activities. Consider working with [Office of Instruction and Assessment](#) to create a curricular map using Taskstream.

The University of Arizona's Didactic Program in Dietetics (DPD) is an accredited program by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). ACEND has chosen to be recognized as an accrediting body by the United States Department of Education (USDE), which recognizes the quality and effectiveness of ACEND as the accrediting body for nutrition and dietetics education programs. As such, the UA DPD program is required to adhere to a set of ACEND standards

for education programs preparing students for careers as registered dietitian nutritionists or nutrition and dietetics technicians, registered.

The Undergraduate DPD Program Certificate will share a common set of learning outcomes with the Nutritional Sciences undergraduate program.

Program Learning Outcomes

BS Nutritional Sciences Outcome Set

Outcome

Outcome	Mapping
Outcome 1 Effectively communicate diet and nutrition information/knowledge to diverse populations	Institutional Learning Outcomes: Communicate Effectively
Outcome 2 Apply scientific evidence, best practices, and professional judgment when evaluating food- and nutrition-related problems	Institutional Learning Outcomes: Use Information Ethically and Effectively
Outcome 3 Identify alterations in nutrition metabolism and its implications on health and disease	Institutional Learning Outcomes: Use Information Ethically and Effectively
Outcome 4 Utilize food science and culinary principles in food preparation to recognize how knowledge of food can influence nutritional status.	Institutional Learning Outcomes: Think Critically

BS Nutritional Sciences

Courses and Activities Mapped to BS Nutritional Sciences Outcome Set

	Outcome			
	Outcome 1 Effectively communicate diet and nutrition information/knowledge to diverse populations	Outcome 2 Apply scientific evidence, best practices, and professional judgment when evaluating food- and nutrition-related problems	Outcome 3 Identify alterations in nutrition metabolism and its implications on health and disease	Outcome 4 Utilize food science and culinary principles in food preparation to recognize how knowledge of food can influence nutritional status.
Courses and Learning Activities				
Sr Exit Survey Survey	A	A	A	A
NSC 410/435 Post test	A	A	A	A
NSC 351 Food demonstration	I	I		A
NSC 308 Metabolic disease presentation		I	A	
NSC 260 Paper and presentation	A	A	I	

To ensure our students achieve preparatory knowledge to become a registered dietitian nutritionist (RDN), they must obtain a passing grade in all DPD courses. Formal evaluation of student learning and performance occurs in all DPD courses using various assessment modalities including but not limited to quizzes, online discussions, papers, group projects and class presentations, community nutrition presentation, and exams. Students are informed of their progress on a regular basis as all Instructors utilize the University's D2L online system for course management. Many opportunities exist for informal feedback about performance. DPD students with a GPA <3.0 will be contacted by their Academic Advisor each fall semester to alert them of their status and recommend they schedule an advising appointment to discuss their performance.

Once all DPD students have completed course requirements, they receive a verification statement. A Verification Statement is an official, signed document given to students signifying that they have successfully completed the DPD program requirements. Graduates of ACEND-accredited DPD programs, or students who complete a program's required course work, may apply for Dietetic Internships to establish eligibility for taking the credentialing exam which leads to the RDN credential. Obtaining a verification statement also allows DPD program graduates to take the credentialing exam to obtain the NDTR credential.

XI. ASSESSMENT PLAN FOR STUDENT LEARNING— identify factors that indicate that completion of the certificate enhances the undergraduate experience. Describe measures for programmatic assessment, and provide a detailed plan for assessing certificate outcomes.

As an accredited ACEND program, the DPD program has a process in place to collect, assess and analyze achievement of student learning outcomes annually in which to evaluate and improve the program based on the curricular map of learning outcomes. Programmatic assessment will occur annually at the completion of the spring semester, by the DPD Director and Assistant Director, and will utilize a variety of methods to assess certificate outcomes including the following:

- *Collecting and analyzing student learning outcome data at the course level according to the curricular map*
- *Graduate's pass rate on the RDN credentialing exam*
- *Survey certificate graduates for feedback regarding undergraduate experience and reparation for supervised practice*
- *Survey results of supervised practice program directors' feedback on graduate preparation for supervised practice, and*
- *Survey results from alumni on preparation for supervised practice every 3 years.*

XII. MARKETING AND RECRUITMENT - provide a detailed and robust marketing strategy for this certificate.

Marketing will begin immediately upon certificate approval. The Department of Nutritional Sciences and the College of Agriculture and Life Sciences have dedicated marketing and development staff members who can develop and produce marketing material. In addition, the certificate will be added to the College and Department websites as well as the lead generating sites used for prospective students, parents, and employers and advertises programs on Facebook, Pandora, Google and online channels to generate requests for more information. There is currently demand for a certificate and initial enrollment is estimate to be 40 students, with potential for over 100 students.

Recruitment activities include the following:

- *Advisors and Nutrition Faculty promote program through Nutrition & Dietetics Professional Networks*

- *AZ Online Marketing (1 of 4 online DPD programs, ONLY online program with certificate available)*

XIII. CONTACTS AND ADMINISTRATION

- a. List the name and contact information for the primary point of contact for the certificate.

Ashlee Linares-Gaffer, MS, RDN
alinares@email.arizona.edu
 520-440-0265

- b. List the name and contact information for the person or persons who will serve in the role of Director of Undergraduate Studies (DUS) for the certificate (this is not always the same as the DUS for affiliated programs or head of the managing academic unit.)

Sabrina Benedict
 sbenedict@email.arizona.edu
 520-621-7484

- c. If known, list the members of the certificate oversight committee for this certificate. *Note: undergraduate certificate oversight committees shall consist of a minimum of 3 members, 2 of which are faculty and at least one of the 2 is participating faculty in the certificate program. The oversight committee is responsible for 1) qualifications of participating faculty, 2) coordination of admissions recommendations with the Office of Admissions, and 3) curricular changes.*

Member	Position	Email	Phone
Sabrina Benedict	NSC academic advisor	sbenedict@email.arizona.edu	621-7484
Kelly Jackson	NSC faculty, participating faculty in certificate program	kjackson@email.arizona.edu	621-9670
Ashlee Linares-Gaffer	NSC faculty, participating faculty in certificate program	alinares@email.arizona.edu	626-3504

Mary Marian	NSC faculty, participating faculty in certificate program	mmarian@u.arizona.edu	235-6793
Michelle Mendoza	NSC academic advisor	mmendoza@email.arizona.edu	621-2017
Nita Ocansey	NSC academic advisor	nocansey@email.arizona.edu	621-9287
Maria Plant	NSC faculty, participating faculty in certificate program	plant@email.arizona.edu	626-9538