

**GRADUATE CERTIFICATE IN APPLIED NUTRITION
PROGRAM HANDBOOK
Summer 2021**

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NUTRITIONAL SCIENCES DEPARTMENT

The Department of Nutritional Sciences leads in cutting-edge research, outstanding undergraduate and graduate programs, Cooperative Extension programs and continuing professional education that advance the discovery and translation of nutrition and physical activity in optimizing health for people in Arizona, and beyond.

PROGRAM DESCRIPTION

The Graduate Certificate in Applied Nutrition (GCAN) is a graduate certificate program in the Department of Nutritional Sciences at The University of Arizona designed to be completed in only 7 months. This 14-credit online certificate provides knowledge and skills in the area of clinical nutrition. Created to provide students with training in advanced nutritional sciences, the GCAN will prepare graduates to successfully compete for jobs in the nutrition workforce as well as enhance placement into graduate or professional training programs. The GCAN is responsive to the challenges faced by today's nutrition professionals, and provides a path to advancement outside of the traditional, research-intensive M.S. degree. This certificate may also serve to enhance the skill set of various healthcare professionals; including, but not limited to, doctors, nurses, chiropractors, medical assistants, health/wellness coaches and personal trainers. This certificate program is designed to provide new insight and skill-building activities in areas to promote positive clinical outcomes in today's health care environment, including:

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- Statistical methods
- Metabolism as it applies to various clinical conditions
- Research methods in nutritional sciences
- Advanced medical nutrition therapy (MNT)
- Nutrition assessment & support
- Nutrigenomics OR Body composition

ADVISING

The program coordinator serves as advisor for students enrolled in the graduate certificate in applied nutrition program. It is recommended that you contact the program coordinator at least each semester to facilitate adequate contact regarding progress in courses, questions regarding future coursework and any other academic or personal issues.

GRADUATE CERTIFICATE FACULTY

Faculty & Contact Information	Course(s) Taught/Program Role
Kayle Skorupski, MS, RDN-AP, CNSC, FAND kayleskorupski@email.arizona.edu	Program Coordinator
Elyse Shearer, PhD, RD & Lucia Mosquera, MS, RD lmosqueira@email.arizona.edu	NSC 610: Nutrition & Disease Or NSC 542: Advanced Medical Nutrition Therapy
Kyle Jones kylemjones@email.arizona.edu	NSC 501: Statistics for Applied Nutritional Sciences I NSC 502: Statistics for Applied Nutritional Sciences II
Vanessa da Silva, PhD, RD vdasilva@email.arizona.edu	NSC 509: Advanced Nutrition Metabolism and Disease
Maria Plant, DCN, RD plant@email.arizona.edu	NSC 519: Advanced Applied Nutritional Sciences
Amy Drescher, PhD, RDN drescher@email.arizona.edu	NSC 545: Body Composition
Floyd "Ski Chilton", PhD fchilton@email.arizona.edu	NSC 575: Nutrigenomics for the Study of Disease Prevention & Intervention

ADMISSION REQUIREMENTS

GCAN program applicants must meet the following minimum requirements:

- Bachelor of Science degree in Nutrition or related field from an accredited institution. A Bachelor of the Arts (B.A.) degree will be accepted in the area of Nutrition.
- Undergraduate Physiology and Biochemistry courses are prerequisites for GCAN courses.
- Minimum 3.0 GPA overall in undergraduate degree
- Additionally, because the GCAN is delivered exclusively online, the following student characteristics are essential to successfully completing the program:
 - Self-directed, independent learner
 - Able to manage time effectively
 - Effective written and verbal communication
 - Able to utilize a wide range of resources effectively

For complete application requirements and instructions on how to apply to the graduate college please visit: <https://apply.grad.arizona.edu/users/login>. Students must be admitted to

CREDIT FOR COURSES TAKEN AS A NON-DEGREE-SEEKING STUDENT

Domestic students may transfer up to 6 units of coursework taken as non-degree seeking students. This means that you may enroll in the required certificate courses prior to being admitted into the program. This does not mean that you may transfer other courses to count toward the certificate. The only courses taken as a non-degree seeking student that may be applied to the GCAN are NSC 501, NSC 509, NSC 519, NSC 542, NSC 545, NSC 575 or NSC 502.

International students are not permitted to enroll in online classes outside of a certificate or degree program. In other words, international students must be accepted into the certificate program prior to enrolling in online courses

FINANCIAL INFORMATION

Cost per unit for the certificate program is \$650 per unit. Currently no funding opportunities are available for this program in the form of scholarships, TA or RA positions. As a certificate program, no financial aid is available. For more information regarding financial aid eligibility please visit: <http://financialaid.arizona.edu/faq-or-dynamic/do-i-qualify>

SEMESTER SCHEDULE & COMPLETION TIMELINE

Summer 2021: 6 credits

NSC 509 Advanced Nutrition Metabolism & Disease

NSC 519 Advanced Applied Nutritional Sciences

Fall 2021: 2-8 credits

NSC 501 Statistics for Applied Nutritional Sciences I

NSC 502 Statistics for Applied Nutritional Sciences II

NSC 545 Assessment and Regulation of Human Body Composition (or NSC 575 Spring)

Spring 2022: 3-6 credits

NSC 575 Nutrigenomics for the Study of Disease Prevention & Intervention (or NSC 545 Fall)

NSC 610 Nutrition & Disease OR NSC 542 Advanced Medical Nutrition Therapy

COURSE REQUIREMENTS AND DESCRIPTIONS

All courses will be fully distributed through online course tool platforms and technology. Students accepted into the GCAN must complete the following courses:

NSC 501 – Statistics for Applied Nutritional Sciences (1) This course will introduce the concepts of research methods with a focus on the varied research conducted in nutritional sciences. Students will be guided through a comprehensive compendium of the elements of research design in order to understand the application of these elements to Applied Nutritional Science.

NSC 502 – Statistics for Applied Nutritional Sciences II (1) This course will introduce basic statistical concepts and applied statistical strategies that are essential for conducting and critiquing research in nutritional sciences and related fields. The course will be delivered online structured with video lectures, self-check practices, discussion forum, assignments and quizzes. The experiences within the course will provide students the necessary competencies to appropriately summarize data (descriptive statistics) and implement statistical tests (inferential statistics) based upon appreciation of research design and data characteristics.

NSC 509 – Advanced Nutrition Metabolism and Disease (3) This class will review the multi-facets of macronutrient metabolism and application to the prevention and development of common chronic diseases. The clinical applications of nutrient deficiencies and toxicities will also be reviewed. Metabolic alterations associated with obesity, metabolic syndrome, and other diseases will be discussed. The application of evidence-based guidelines and research for nutritional interventions will be discussed through weekly readings and assignments.

NSC 519 – Advanced Applied Nutritional Sciences (3) This course will advance understanding of research design, methods, and implementation, interpretation of research findings, and advances in nutrition science research for selected chronic diseases.

NSC 542 – Advanced Medical Nutrition Therapy (3) This course focuses on the prevention and management of selected chronic disease and acute care conditions. An in-depth exploration of the selected topics and related research using an evidence-based approach will serve as the class foundation. The course will be completed with students presenting a discussion/review of an approved topic.

OR

NSC 610 – Nutrition & Disease (3) The overall goal of this class is to improve students' understanding of how diet influences health and chronic disease risk by examining the biochemical and physiological effects of specific dietary components and overall dietary patterns. This course will use current research materials and in-depth examples—or case studies—of how nutrition can impact diabetes, inflammatory diseases, cardiovascular disease, and cancer. By learning these prevalent examples, students will gain the ability to develop new areas of expertise in response to specific nutrition and disease challenges that they encounter in their careers and/or research. Review articles and primary research papers will be made available on D2L to supplement textbook material and provide examples of real-world applications for lecture content. This course will emphasize current research as it applies to material covered in class.

NSC 545 – Assessment and Regulation of Human Body Composition (3) This course covers advanced principles of body composition assessment and management. Methods of body composition assessment will be covered with a focus on aging, obesity, sarcopenia and bone health. The impact of physical activity and pharmacology will be reviewed.

OR

NSC 575 – Nutrigenomics for the Study of Disease Prevention & Intervention (3) Nutrigenomics is the application of genomics to human nutrition. This online course will explore relevant technologies, genetics & nutrition. Designed by researchers in colleges & centers of excellence, it will be continually updated with the latest information. Graduate-level requirements include Nutrigenomics/Organization of the genome; Advanced Models; Target validation; Mouse models; lab assignments; Advanced discussion board questions (4 total) are due after each unit.

NETID AND EMAIL

Your NetID is your personal identifier for a number of online services at the University of Arizona, including email and UITS computing accounts (CatMail, UAConnect), UAccess account, D2L (learning management system and university site-licensed software).

The UA NetID verifies identify when it is used for online services the University of Arizona provides. To set up your NetID, please visit: <https://netid.arizona.edu/>

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Your CatMail account is created automatically when you select your NetID. The new email address with all have the format your NetID@email.arizona.edu, and it is the official means of communication between the students and the university. It is required that you use your UA email for communication with your instructors. You will also receive notification of tuition bills, etc. via this email address. The email is provided by the Google G Suite for Education, which provides access to Google's full suite of applications. For more information, please visit: it.arizona.edu/service/catmail-student-email

CATCARD

The CatCard is the official University of Arizona Identification card. The card features a digitized photo, digitized signature, Contactless SmartChip, ISO number and magnetic stripe. It is up to you how you want to use your card.

As an online student, it is not required to obtain a CatCard, but there are many benefits, like using/showing your card to obtain student discounts. As an online student, you are able to obtain a CatCard, but first you will need to upload a photo. To learn more about this process, and to obtain your card, please visit: <https://myphoto.catcard.arizona.edu/index.aspx>

D2L (Desire2Learn) BRIGHTSPACE

D2L provides instructors and students with an online space for traditional classroom courses, online classes, or hybrids. In D2L you will find:

- Course syllabi
- Readings
- Assignments
- Quizzes
- Grades
- List of classmates
- Online discussions
- And more....

D2L includes access to tools such as Adobe Connect, Panopto, VoiceThread and Examity. To access D2L, please visit: <https://d2l.arizona.edu/> . For assistance with D2L, please visit: <http://help.d2l.arizona.edu/student/student-home>

D2L requires that you submit files as Microsoft Office compatible (i.e. WORD) or as PDF files. Other file types (i.e. PAGES) will not be accepted. As a UA student, you are able to download Microsoft Office 365 for your use. For more information, please visit: <http://uabookstore.arizona.edu/technology/campuslicensing/default.asp>

Other software is available to students for free or a discounted fee. Please visit this site for more details: <https://softwarelicense.arizona.edu/students>

UNIVERSITY OF ARIZONA LIBRARIES

The University of Arizona libraries provide resources, services and expertise to the University and the local community, the main library website can be found at

<http://new.library.arizona.edu/>

There is a library resource page set up specifically for Applied Nutrition students, please access: <http://libguides.library.arizona.edu/gcpsm> for more information. This website has the contact information for the librarian for the College of Agriculture and Life Sciences, as well as links for information that is relevant to graduate students and to online students.

STUDENT SUPPORT AND RESOURCES

The Graduate College has many resources available, for more information visit:

<http://grad.arizona.edu/new-and-current-students>

The department of Academic Success & Achievement provides a service called SOS (Support, Opportunity, Success). SOS is for UA students who find themselves facing questions or issues and are unsure about where to go for answers. Whether you're brand-new to campus or have been around for a while, just reach out to SOS for round-the-clock support. Access their website to learn more about SOS, or to ask a question: <https://sos.arizona.edu/>

The Disability Resource Center (DRC) is focused on creating inclusive learning and working environments and facilities through all aspects of the University of Arizona. The access consultant for the Graduate College is Jayci Robb and she can be reached at: jacyir@email.arizona.edu. For more information regarding the DRC, please visit their webpage: <https://drc.arizona.edu/>

The Graduate and Professional Student newsletter provides up to date information regarding funding opportunities, employment opportunities, trainings, social events and more. To register for the newsletter, please visit: <https://arizona.us17.list-manage.com/subscribe?u=af018f756d1ccbea4673d3677&id=4c8a27f1fd>

For events being held by the Graduate & Professional Student Council, please visit: <https://gpsc.arizona.edu/community-board>

CAMPUS HEALTH RESOURCES

Arizona Online students can receive health care services from Campus Health, including mental health services. For more information, please visit <https://health.arizona.edu/arizona-online-students>

STUDENT RESPONSIBILITIES AND PROFESSIONAL CONDUCT

Please visit the following link for more information regarding the Student Code of Conduct at the University of Arizona: <https://deanofstudents.arizona.edu/student-code-conduct-student-faqs>

IMPORTANT LINKS

- Graduate College – access to Graduate College policies, contacts, information about resources, deadlines and other useful information: <http://grad.arizona.edu>
- Resources for professional development and health and wellness please visit: <http://grad.arizona.edu/new-and-current-students>
- General Catalog provides comprehensive information related to all academic programs at the University of Arizona: <http://catalog.arizona.edu/>
- Academic Integrity – please review the code of academic integrity: <https://deanofstudents.arizona.edu/policies-and-codes/code-academic-integrity>
- Responsible Conduct of Research: <http://www.orcr.arizona.edu/>

It is the Department of Nutritional Sciences policy that the student holds final responsibility for being aware of and responding to all Nutritional Sciences, Graduate College and University of Arizona policies, requirements, formats and deadlines as they pertain to progression towards and completion of their certificate program. If any questions persist following review of all policies, please contact your program coordinator for assistance and clarification.

STUDENT OUTCOMES

- Define and describe evidence-based nutritional science research methods and apply appropriate research methods to clinical case studies and research scenarios
- Synthesize current scientific literature from various sources to product a review paper written in the style of a nutrition journal and produce a presentation appropriate for health professionals
- Demonstrate an understanding of the metabolism and genetic interactions of the macronutrients; including application to health and disease
- Identify risk factors associated with the development of chronic disease and describe dietary management strategies for the prevention and management of the most common chronic diseases
- Demonstrate the ability to critically review and evaluate the literature related to nutrition and topics covered in the certificate courses using methods established by the AND Evidence Analysis Library
- Demonstrate an understanding of the metabolic influences of select class topics regarding anthropometric, biochemical, clinical, and diagnostic parameters used for assessing systemic and nutrition health status
- Apply an evidence-based approach to examine medical nutrition therapy for the prevention and management of related class topics.
- Describe the fundamentals of data collection and measurement
- Identify appropriate statistical models and software for quantitative data analysis

INCOMPLETE POLICY

Students earning a grade of Incomplete, “I” for a course should submit a completed Report of Incomplete Grade form to the program coordinator for inclusion in their academic record. This form is available here: <http://registrar.arizona.edu/grades/incomplete-i-grade>. Incomplete grades should be completed in a timely manner and are submitted at the discretion of the course instructor.

REMEDIATION

All coursework must be passed with a grade of C or better for the units to count towards the required 14 units of the certificate. An overall GPA of > 3.0 in the program is required for program completion. Students judged to have academic difficulties (e.g. poor, grades, failing or at risk of failing to satisfy program requirements) will receive notice from the program coordinator with specific suggestions as to how these problems might be remedied and the data by which such actions must be taken. This notification will be copied to the Graduate College. The Graduate College has established guidelines; which departments must follow in order to dismiss students from their programs. Students should familiarize themselves with the steps so they know their rights, responsibilities, and remedies should such a situation develop. Students who fail to remediate by the deadlines specified may be dismissed from the program.