

University of Kansas Medical Center

Doctorate in Clinical Nutrition

Program Approval

I. General Information

A. **Institution** University of Kansas Medical Center

B. Program Identification

Degree Level:	Doctorate
Program Title:	Clinical Nutrition
Degree to be Offered:	Doctorate in Clinical Nutrition (DCN)
Responsible Department:	Dietetics and Nutrition (DN)
Modality:	Online
CIP Code:	30.1901
Proposed Implementation Date:	Fall 2020

Total Number of Semester Credit Hours for the Degree: 48

II. Justification

A Doctorate in Clinical Nutrition (DCN) is an online, professional practice degree focused on producing:

- advanced-level practitioners in clinical nutrition;
- food and nutrition managers, administrators, and consultants;
- public health nutritionists; and
- transformational researchers in higher education.

Clinical dietitians work in clinical settings to provide patients with medical nutrition therapy to prevent chronic disease and to manage existing disease. Medical nutrition therapy involves individualized nutrition assessment, identification of nutrition problems that contribute to disease, evidence-based nutrition therapy to address identified nutrition problems, and nutrition counseling services for disease management (Academy of Nutrition & Dietetics).¹ Examples of patient conditions for which medical nutrition therapy has a strong evidence base include malnutrition, diabetes mellitus, chronic kidney disease, cardiovascular disease, cancer, and more. Furthermore, there is a strong demand for advanced practice clinical nutritionists among physicians, administrators, and other health care professionals who work with, hire, and supervise dietitians.

Graduates of the KUMC Doctorate in Clinical Nutrition (DCN) program would be rigorously trained to provide leadership in prevention, intervention, and treatment of chronic diseases at the individual and population level. DCN graduates would complete cutting-edge coursework, a work-based practicum, and an outcomes-based research project. Similar programs at KUMC follow this structural framework, including Doctor of Nursing Practice, Doctor of Nurse Anesthesia, Doctor of Physical Therapy, Doctor of Occupational Therapy, Doctor of Audiology, Doctor of Speech-Language Pathology, and Doctorate in Clinical Laboratory Science.

Advanced-level clinical nutrition practitioners are in demand as the healthcare industry increasingly requires higher levels of education to enter the field.² In fact, the Commission on Dietetic Registration recently changed the requirement for entry-level dietitians from a baccalaureate degree to a master's degree, effective January 1, 2024.³ Other health professions have already moved their requirements to a graduate level, including Physical Therapy, Audiology, and Occupational Therapy.

Lack of a DCN is a critical gap in the Dietetics and Nutrition program given the growing demand for advanced-level practitioners in clinical nutrition. Compelling reasons to be an early pioneer for the DCN are many, including:

- development of strong clinical and research skills that can be used to design and direct translational research in clinical settings;
- a gain in respect and credibility with other fields;
- increased critical thinking skills; and
- contributions to advances in the field of nutrition.

III. Program Demand:

A. Survey of Student Interest

Number of surveys administered: 33
Number of completed surveys returned: 33
Percentage of students interested in program: ... 45%

As formative work, the Department of Dietetics and Nutrition distributed a survey to a convenience sample of attendees at the Kansas Academy of Nutrition and Dietetics (KSAND) Annual Conference in Topeka on April 15, 2016. This is the state professional meeting for dietitians. Surveys were handed to 80 dietitians who visited the KUMC exhibit booth. Respondents either filled the survey while at the booth or returned it later that day. The results (n=54) indicated a strong interest in a DCN program and a preference for an online format. The information was used to formulate the proposed program.

In 2018, a revised survey was built in an online version. A unique Quick Response Code (QR code) was established and linked so that when an individual scanned the QR code with their smartphone, the survey autopopulated in their phone. If preferred, a paper copy of the survey was also available. On April 2, 2018, the online survey was given to students currently enrolled in the Dietetics and Nutrition Master’s program (n=12) to gauge interest and test the online survey version. The convenience sample of students were graduating students enrolled in an advanced micronutrient class. Twenty-five percent of the students indicated that they would be interested in completing a DCN program. The top barriers noted were: “*I am not motivated for more school at this time*” and “*I would need to know the cost*”.

Given that the population of interest for the proposed DCN program is working dietitians, on April 6, 2018, registered dietitians (n=33) who attended the KSAND Annual Conference in Overland Park, KS were surveyed. Attendees who visited the KUMC exhibit booth were invited to scan the QR code and take the survey on their phone or complete a paper survey at that time. Forty-five percent of the dietitians expressed interest in completing a DCN.

B. Market Research

In recent years, interest in the role of food and nutrition in promoting health and wellness has increased, particularly as a part of preventative healthcare in medical settings. The importance of diet in preventing and treating illnesses is well known. More dietitians will be needed to provide care for people with these conditions. Moreover, as the baby-boom generation grows older and looks for ways to stay healthy, there will be more demand for dietetic and nutrition services.⁶

As early as 1993 in a regional survey of dietitians, 99% reported that a practice doctorate was important for dietitians and 55% expressed interest in attaining such a degree.⁷ In 1994, the American Dietetic Association identified development of practice-based doctoral programs as a priority.⁸ In 2006, a national survey of dietitians revealed strong interest in professional doctorate programs.⁹ A 2015 survey by the Accreditation Council for Education in Nutrition and Dietetics found that “credible advanced practice credentials remain important in raising the competency level of dietitians and to address the increasing rate of chronic and complex diseases”.¹⁰

There are currently only two other Doctorate in Clinical Nutrition programs in the country (Rutgers University and University of North Florida). Both existing programs are online and there are no residential DCN programs. Offering a DCN at KUMC will fill both a national need as well as the state-level need in Kansas.

IV. Projected Enrollment for the Initial Three Years of the Program

Year	Headcount Per Year		Sem Credit Hrs Per Year*	
	New Full-Time	New Part-Time	Cumulative Full-Time	Cumulative Part-Time
Implementation	5	7	120	84
Year 2	5	7	240	168
Year 3	10	14	360	252

*Credit hours based on 24/year for full time and 12/year for part-time.

V. Employment

According to the U.S. Department of Labor website, employment of dietitians is projected to grow 15 percent from 2016 to 2026, much faster than the average for all occupations.⁴ The demand for doctoral level dietitians is estimated to far outpace the supply.⁵ Graduates of other DCN programs have become:

- advanced-level practitioners in healthcare settings (acute care and outpatient settings);
- university faculty;
- research specialists; and
- senior management professionals in federal and state programs, industry, and non-profit organizations.

The Department of Veterans Affairs hired the most dietitians in 2017,¹¹ followed by Academic Medical Centers across the U.S. Dietitians with advanced degrees or certification in a specialty area enjoy better job prospects. For example, dietitians with doctoral degrees earn \$14 more per hour than those with a bachelor's degree.¹² The median salary for a dietitian is \$59,410, and those with clinical doctoral degrees average \$77,410 with many exceeding \$100,000 annually.¹³

VI. Admission and Curriculum

A. Admission Criteria

Admission criteria are listed below. Applicants must:

- Be a Registered Dietitian with current professional licensure (when required by their state).
- Have an earned Master's degree and currently employed as a dietitian (either full- or part-time).
- Complete the graduate application form, including letter of intent with professional goals.
- Achieved minimum graduate GPA requirements for admission to KUMC (3.0 on a 4.0 scale).
- Submit official transcripts from all colleges and/or universities attended with degrees conferred.
- Submit three letters of recommendation from supervisors, faculty, or advisors in the field.
- International students must reside in a country that has reciprocity with Commission on Dietetic Registration; Official TOEFL exam scores for international applicants must be sent directly to KUMC.

B. Curriculum

	Course Number & Title		SCH
Summer	DN XXX*	Interprofessional Collaboration	3
	DN 8**	Clinical Nutrition Core Elective	3
		<i>Summer Subtotal</i>	6
Fall	DN XXX	Nutrition Communication for Advanced Practice	3
	DN XXX	Leadership Essentials in Clinical Nutrition	2
	PRVM 853	Responsible Conduct of Research (Ethics)	1
	DN 8**	Clinical Nutrition Core Elective	3
		<i>Fall Subtotal</i>	9

Spring	NRSG 880	Org. Found Lead Change	3
	Biostats 714	Fundamentals of Biostatistics I	3
	DN XXX	Evidence Analysis in Clinical Nutrition	3
		<i>Spring Subtotal</i>	9
Summer	DN 810	Nutritional Assessment	3
	DN XXX	Research Protocol Development in Clinical Nutrition	1
	NURS 938	Informatics and Technology Applications	2
		<i>Summer Subtotal</i>	6
Fall	NRSG 919	Fdtns. for Leading & Communicating in Organizations	3
	BIOS 717	Fundamentals of Biostatistics II	3
	DN XXX	Advanced Clinical Nutrition Residency†	3
		<i>Fall Subtotal</i>	9
Spring	DN 8**	Clinical Nutrition Core Elective	3
	DN 990	Applied Research Project	6
		<i>Spring Subtotal</i>	9
		Total	48

DN = Dietetics and Nutrition; BIOS = Biostatistics; NURS = Nursing; PVRM = Preventive Medicine

* Courses in development

** Students select from among the following electives:

- DN 829 Nutrition in Aging
- DN 838 Advanced Medical Nutrition Therapy
- DN 839 Clinical Aspects of Nutrition Support
- DN 842 U.S. Public Health Nutrition
- DN 857 Motivational Interviewing in Health Settings
- DN 862 Maternal and Child Nutrition
- DN 865 Nutrition in Sport and Exercise
- DN 870 Health Behavior Counseling
- DN 875 Pediatric Clinical Nutrition
- DN 876 Interventions for the Prevention of Obesity
- DN 880 Dietary and Herbal Supplements
- DN 881 Introduction to Dietetics and Integrative Medicine
- DN 882 A Nutrition Approach to Inflammation and Immune Regulation
- DN 884 Diet, Physical Activity and Cancer
- DN 885 Nutritional Biochemistry
- DN 895 Advanced Macronutrients and Integrated Metabolism
- DN 896 Advanced Micronutrients and Integrated Metabolism
- DN 890 Nutrigenomics and Nutrigenetics in Health and Disease

† Students will self-select the clinical sites for their Advanced Clinical Nutrition Residency based on their geographical location and career interests. Regardless of the location of the clinical site, KUMC will obtain clinical affiliation agreements with each selected site.

VII. Core Faculty

Faculty Name	Rank	Highest Degree	Tenure Track Y/N	Academic Area of Specialization
Debra K. Sullivan, Ph.D., R.D.	Professor	Ph.D.	Y	Life Cycle Nutrition/Leadership
Jeannine Goetz, Ph.D., R.D., L.D.	Assoc. Prof.	Ph.D.	Y	Weight Management
Heather Gibbs, Ph.D., R.D., L.D.	Asst. Prof.	Ph.D.	Y	Medical Nutrition Therapy
Aaron Carbuhn, Ph.D., R.D., L.D., CSSD	Asst. Prof.	Ph.D.	Y	Sports Nutrition
Susan Carlson, Ph.D.	Professor	Ph.D.	Y	Maternal/Child Nutrition

Holly Hull, Ph.D.	Assoc. Prof.	Ph.D.	Y	Maternal/Child Nutrition
Sharon Peterson, Ph.D., R.D., L.D.	Clinical Instructor	Ph.D.	N	Nutrition Education
Leigh Wagner, Ph.D., R.D., L.D.	Clinical Instructor	Ph.D.	N	Integrative Nutrition
New Faculty/Program Director*	Clin. Assoc. Prof.	Ph.D.	N	Medical Nutrition Therapy
New Faculty (year 2)	Clinical Instructor	Ph.D.	N	Nutrition Support
Additional Faculty				
Jill Hamilton-Reeves, Ph.D., R.D., L.D., CSSD. Department of Urology	Assoc. Prof.	Ph.D.	Y	Nutrition and Cancer
Candice Rose, M.D. M.S. R.D. Department of Internal Medicine	Asst. Prof.	M.D.	Y	Endocrinology
Lauren Ptomey, Ph.D., R.D., L.D. Department of Internal Medicine	Res. Asst. Prof.	Ph.D.	N	Nutrition and Intellectual and Developmental Disabilities

Number of graduate assistants assigned to this program 0

VIII. Expenditure and Funding Sources

A. EXPENDITURES	First FY	Second FY	Third FY
Personnel – Reassigned or Existing Positions			
Faculty	\$ 44,780	\$ 46,123	\$ 47,045
Administrators (<i>other than instruction time</i>)			
Graduate Assistants			
Support Staff for Administration (<i>e.g., secretarial</i>)	\$ 1,075	\$ 1,107	\$ 1,140
Fringe Benefits (<i>total for all groups</i>)	\$ 16,049	\$ 16,530	\$ 16,865
Other Personnel Costs			
Total Existing Personnel Costs – Reassigned or Existing	\$ 61,904	\$ 63,760	\$ 65,050
Personnel – New Positions			
Faculty	\$ 102,250	\$ 164,800	\$ 169,744
Administrators (<i>other than instruction time</i>)			
Graduate Assistants			
Support Staff for Administration (<i>e.g., secretarial</i>)			
Fringe Benefits (<i>total for all groups</i>)	\$ 29,050	\$ 57,680	\$ 59,410
Other Personnel Costs			
Total Existing Personnel Costs – New Positions	\$ 131,300	\$ 222,480	\$ 229,154
Library/learning resources			
Equipment/Technology	\$ 2,100		
Physical Facilities: Construction or Renovation			
Other	\$ 2,200		
Total Start-up Costs	\$ 4,300	\$ 0	\$ 0

Operating Costs – Recurring Expenses			
Supplies/Expenses	\$ 11,335	\$ 10,670	\$ 17,150
Library/learning resources			
Equipment/Technology			
Travel			
Other			
Total Operating Costs	\$ 11,335	\$10,670	\$ 17,150
GRAND TOTAL COSTS	\$ 208,839	\$ 296,910	\$ 311,354

B. FUNDING SOURCES <i>(projected as appropriate)</i>	First FY (New)	Second FY (New)	Third FY (New)
Tuition / State Funds	\$ 85,884	\$ 171,768	\$ 257,652
Student Fees	\$ 20,400	\$ 40,800	\$ 61,200
Other Sources			
GRAND TOTAL FUNDING	\$ 106,284	\$ 212,568	\$ 318,852
C. Projected Surplus/Deficit (+/-) (Grand Total Funding <i>minus</i> Grand Total Costs)	(\$ 102,555)	(\$ 84,342)	+ \$ 7,498

IX. Expenditures and Funding Sources Explanations

A. Expenditures

Personnel – Reassigned or Existing Positions

This program leverages existing classes in Dietetics and Nutrition (DN) as well as those currently being taught by faculty in the School of Nursing and School of Medicine at KUMC. The current DN faculty will continue to teach their existing classes and the new Doctorate in Clinical Nursing (DCN) students will join existing students.

Faculty experts in the KUMC School of Medicine co-mentor students when their expertise is desired. They have agreed to continue their role in this new program. Dr. Hamilton-Reeves teaches DN 884: Diet, Physical Activity and Cancer and mentors DN students who wish to pursue cancer research. Dr. Ptomey is an expert in diet and physical activity interventions for individuals with intellectual and developmental disabilities (IDD). She has taught several DN courses and routinely mentors MS students who are interested in IDD. Dr. Rose is a board-certified endocrinologist and also a Registered Dietitian; she mentors students interested in endocrinology areas.

The calculations for the FTE for existing faculty are listed below.

- Dr. Sullivan as Department Chair will oversee the program; this was estimated at 10%.
- Dr. Goetz teaches existing classes that will likely be taken as electives. It was assumed that she will teach one class per year where the new DCN students will enroll A 3 semester credit hour course is calculated as 10%. The current existing student enrollment is 20 students, and, at most, 10 DCN students would take the class - - thus her curricular engagement is calculated at 5%.
- Drs. Gibbs, Carbuhn, Peterson and Wagner also teach existing classes that the new DCN students will join. It is anticipated they may teach 2 classes per year that DCN students will take and thus using the calculations above, they are estimated at 10% engagement.
- Drs. Carlson and Hull will participate in the orientation session for new students and also teach courses that are optional electives for this program and two other graduate programs (Nutrigenomics and Nutrigenetics in Health and Disease and Advanced Micronutrients and Integrated Metabolism). Using the calculations above, they are estimated at less than 10% engagement.

Personnel – New Positions

According to the KBOR manual, KUMC should hire two new faculty to support the new graduate program. The institution is committed to supporting the DCN and has committed to support two new faculty positions. KUMC plans to hire:

- one new Ph.D. level faculty as a Clinical Associate Professor (\$83,000) in the fourth quarter of 2019 (so that this hire can begin developing the program).
- one new Ph.D. level Clinical Assistant Professor (\$77,000) in 2020.

These individuals will be doctorly prepared, Registered Dietitians who also have clinical experience. They will be fully committed to the DCN program and will develop and teach new classes. They will oversee the clinical residencies and outcomes research projects.

Start-up Costs – One-Time Expenses

Year 1: Purchase a new computer and office furniture for new faculty.

Operating Costs – Recurring Expenses

The DCN is modeled after the successful KUMC School of Nursing Doctorate of Nursing Practice. The students will attend an orientation program where they undergo experiential training in required skills and then return for a follow up visit to evaluate the skills after being in the program. The costs estimates are listed in the table below.

Expenses	Year 1	Year 2	Year 3
Orientation visit (meals & materials estimated at \$100/student)*	\$ 1,200	\$ 1,220	\$ 2,400
Nutrition focused physical exam training (\$65/student)*	\$ 780	\$ 780	\$ 1,560
Body composition training (\$50/student)*	\$ 600	\$ 600	\$ 1,200
Simulation space use, standardized patients, and staff (\$200/student)*	\$ 2,400	\$ 2,400	\$ 4,800
Nutrition Data System for Research (\$5,925 initial license + \$3,850 annual renewal in years 2 and 3).	\$ 5,925	\$ 3,850	\$ 3,850
Online Diet Manuals (adult, pediatric and sports @ \$175, \$175, and \$80 for initial license and then \$135, \$135, and \$70 for annual renewals.	\$ 430	\$ 340	\$ 340
Publication costs to defer student cost of publishing their research**		\$ 1,500	\$ 3,000
Total	\$ 11,335	\$ 10,670	\$ 17,150

*Students receive these trainings in their first year and there are 12 new students in Years 1 and 2 and 24 new students in Year 3.

** In the Evidence Analysis in Clinical Nutrition class, students will be expected to conduct an evidence analysis review and publish the results. The cost is estimated at \$1,500 per publication with one publication in year 2 and two in year 3.

B. Revenue: Funding Sources

Revenue will come from tuition and student fees as listed in Table VIII Section B. A fee of \$100/semester credit hour is included to

- provide unique experiential learning opportunities for students (simulation, nutrition focused physical exam, and advanced body composition);
- access to specialized software; and
- defray the publication costs for manuscripts that result from their evidence analysis class.

	Year 1	Year 2	Year 3
Tuition (\$421/credit hr)			
Full time	\$ 50,520	\$ 101,040	\$ 151,560
Part-time	\$ 35,364	\$ 70,728	\$ 106,092
Total	\$ 85,884	\$ 171,768	\$ 257,652
Student fees (\$100/hr)			
Full time	\$ 12,000	\$ 24,000	\$ 36,000
Part-time	\$ 8,400	\$ 16,800	\$ 25,200
Total	\$ 20,400	\$ 40,800	\$ 61,200
Total Revenue	\$ 106,284	\$ 212,568	\$ 318,852

Full time students take 24 credit hours/year and part time students take 12 credit hours/year.

Year 1 has 5 full time and 7 part-time students.

Year 2 has 10 full time (5 new; 5 returning) and 14 part-time students (7 new; 7 returning).

Year 3 has 15 full time (10 new; 5 returning) and 21 part-time students (14 new; 7 returning).

C. Projected Surplus/Deficit

The program will be in the deficit in Years 1 and 2, but then has a surplus in Year 3 and thereafter.

X. References

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Oregon State University
College of Public Health
and Human Sciences

RUTGERS
School of Health Professions



**Report to the Kansas Board of Regents
regarding the Proposed Program for
a new Doctorate in Clinical Nutrition (DCN),
Department of Dietetics and Nutrition, School of Health Professions,
University of Kansas Medical Center (KUMC)**

August 28, 2019

Review Team Members:

Rebecca Brody, Associate Professor, Department of Clinical and Preventative Nutrition Sciences,
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Norman Hord, Head and Celia Strickland Austin and G. Kenneth Austin III Professor in Public Health
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Kelly Tappenden, Professor and Head of the Department of Kinesiology and Nutrition, University of
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Riva Touger-Decker, Professor and Chair, Department of Clinical and Preventative Nutrition
Sciences, The State University of New Jersey

Preamble:

The review team appointed by the Kansas Board of Regents (KBR) completed a site visit from July 31-August 1, 2019 and submits this written evaluation of the program proposal for a new Doctorate in Clinical Nutrition (DCN) in the Department of Dietetics and Nutrition at the University of Kansas Medical Center (KUMC). During our site visit, we made minor recommendations to KUMC leaders, Vice Chancellor Kline, Dean Akinwuntan and Department Chair Sullivan. Based on our site visit, our review of the program proposal, and responses from KUMC to our minor recommendations, we offer the following recommendation and report per KBR policy.

The review committee appointed by the Kansas Board of Regents has judged that each of the six (6) standards described in the Board Policies on New Degree Programs has been met for the proposal for the Doctorate in Clinical Nutrition. The strong support of the DCN proposal by our review team is accompanied by specific commentary providing evidence that each standard has been adequately addressed.

We would like to thank the staff, faculty and administration at KUMC for their time, input and generous assistance during the review process. We were deeply impressed with the commitment to this proposed program and with the broad academic, technological and intellectual resources available to accomplish this proposed innovative program. It is worthy of comment that the review team noted consistent evidence of collaborative support among partners in other academic units, medical center departments, and other Kansas City-based health care institutions. This culture of collaboration and support at KUMC and the Kansas City metropolitan area portends well for the success of existing and proposed programs at this institution.

It is necessary to distinguish the training, clinical experience and research opportunities available to the DCN graduate relative to a research-focused Doctor of Philosophy (PhD) degree. Rapid shifts in the health care environment have driven advancement of education requirements for entry-level practice. Thus, as with practitioners with clinical practice doctorates in pharmacy, physical therapy and occupational therapy, the DCN fulfills this role in the nutrition and dietetics field.

Please note that two members of this review team serve as faculty in the pioneering Doctorate of Clinical Nutrition program in the U.S. at Rutgers, The State University of New Jersey. During the invited review of this proposal, the chair of the Department of Dietetics and Nutrition at KUMC has been responsive to commentary and critique which have led to refinement of the proposal curricula. There is no stronger support that can be voiced for this new proposed DCN program than to have one's potential competitor provide valuable collaborative assistance in program review and planning.

Section 1: Program justification

The review committee reports that the proposed DCN program is strongly justified and provide supportive commentary in six points below.

1. The proposed program supports the Board-approved mission statement of the institution; programmatic goals have 3 foci including advanced practice skills, research and scholarly communication, and professional leadership. The establishment and growth of DCN-prepared clinical practitioners contrasts the expertise of PhD-prepared faculty who are involved in clinically-focused research. In the same vein, the career trajectories of DCN-prepared practitioners are demonstrably broader than PhDs given the “academia or industry” dichotomy often presented to such graduates. It is noteworthy that DCN graduates are employed in a broad range of environments including advanced clinical settings, clinical research, pharmaceutical research, food industry research and academic tenure-track and clinical faculty positions. The necessity for demonstrating competence in advanced practice clinical skills clearly distinguishes the DCN program from a typical academic PhD program.
2. With elevation to a required graduate degree for entry-level practice in the nutrition and dietetics profession in 2024, there will be an anticipated increased need for doctorally-prepared clinical educators to teach in master’s programs. RDs who want to distinguish themselves beyond those with a master’s degree may enter a DCN program for advancement. The Academy of Nutrition and Dietetics supports development of advanced practitioners to strengthen opportunities for RDs in practice, research and clinical education. Adequate growth in student numbers are expected and are clearly described in the proposal.
3. We agree with the Vice Chancellor for Academic Affairs and Graduate Dean who stated the need for developing Registered Dietitians (RD) at the advanced practice level. Their clinical observations indicate that the impact of RDs will grow with advanced practice training as has occurred with other allied health professions. They propose that if RDs want a “seat at the clinical table, having those with advanced expertise, recognized by the DCN, is critical for the profession.”
4. Two similar DCN programs exist in the U.S.; if approved, this would be the third DCN program in the US. The Regents system does not have a similar program nor is there a DCN program in this region of the US. The online platform will extend the reach of the program beyond the Midwest; however, local interest has been demonstrated through surveys and interviews. The program can draw from graduates of the masters degree programs at KUMC.
5. A growing evidence base from DCN graduates surveyed nationally by Rutgers University report that 35% of DCN graduates have enhanced income, 44% report increase in depth and breadth of their current position and 43% report career advancement or promotion.
6. Interviews with current masters-prepared RDs- clinicians and clinical managers in the Kansas City area- report strong desire to participate in the proposed DCN program. This strong evidence of considerable “pent up” demand was striking to the review team. The stated desire of these RDs to pursue the proposed DCN stemmed from interests ranging from enhanced knowledge base to opportunities of promotion and enhanced ability to participate in and lead multidisciplinary health care teams.

Section 2: Curriculum of proposed program

The review committee reports that the DCN program proposal has articulated a strong curriculum and provide supportive commentary in ten points below.

1. It is noteworthy that the KUMC DCN program proposal is modeled after the pioneering DCN program at Rutgers University. The rigor of the proposed program is consistent with advanced practice needs of RDNS in education, skills development (residency), leadership and research and scholarship.
2. The proposed curriculum is mapped to the current advanced practice competencies established through a practice audit conducted by the Commission on Dietetic Registration for development of the advanced practice in clinical nutrition credential. The coursework is comprised of 3 core sections: Communication, Collaboration, and Leadership, Research, and Clinical Nutrition. Students may select electives to support their area of clinical focus. The program offers a diverse selection of evidence-based courses that are expected to prepare graduates for advanced practice. The clinical practice residency, a 360- hour experience, will hone graduates' advanced practice skills. The proposed curriculum provides statistics and research courses to support development of a practice-based research project. Scientific inquiry, oral and written communication and critical thinking are threaded through the curricula.
3. We applaud the interdisciplinary training provided by the interprofessional education (IPE) programming across KUMC. The program goals related to IPE and professional leadership are significant differentiators from the PhD program and an essential element of the proposed program that will enable the graduates to provide professional leadership in collaborative health care settings.
4. The recommendation to include anticipated costs beyond tuition and fees associated with KUMC DCN program, as well as the established curricula for the program via web-based and print materials has been accomplished.
5. The recommendation to clarify the availability of both asynchronous and synchronous live sessions within courses for students to interact with faculty and demonstrate achievement of advanced practice knowledge beyond what is possible with the asynchronous approach has been met.
6. The recommendation that inclusion of interprofessional education (IPE) curricula in the DCN program curricula be "transcript visible" on student academic transcripts for each course or competency completed has been met.
7. The recommendation that the program proposal make clear that the program curricula will meet the knowledge, skills and abilities set forth in the *Advanced Practice Certification in Clinical Nutrition* by the Commission on Dietetic Registration of the Academy of Nutrition and Dietetics has been met.
8. The recommendation that the proposal clearly articulate the process for establishing approved residency sites and for approval of qualified advanced practice mentors for the residency component of the DCN has been met.
9. The recommendation that advanced practice clinical skills, particularly as part of their skills assessment for the assessment course and advanced MNT class, be taught using the KUMC Zamierowski Institute for Experiential Learning, the Neis Clinical Skills Lab and Simulation Center has been met. These skills may be accessible asynchronously, via KUMC Blackboard technologies, or synchronously, as appropriate to the course.
10. The recommendation that mentoring for research projects for DCN students include clear communication of mentoring committee composition and expectations for scholarship (including manuscript development and publication) consistent with doctoral-level programs has been met.

Section 3: Program faculty

The review committee reports that the DCN program proposal provides strong evidence that the faculty are highly qualified and appropriate to provide the current and, pending the new approved hires, for the proposed DCN program and provide supportive commentary in five points below.

1. The successful conduct of master's and doctoral programs in nutrition and medical nutrition science, respectively, demonstrate that the faculty and academic resources have been adequate for current degree programming.
2. The core faculty and adjuncts provide the expertise necessary to build a strong program. The requested and approved new faculty positions are a key strength of the proposed program. It would be supportive for the program director of the proposed DCN program if additional administrative support be provided by one or more graduate assistants.
3. The eight tenured, tenure-track and clinical faculty serving in the Department of Dietetics and Nutrition are excellent scholars and nutrition/dietetics practitioners. The additional three faculty affiliated with this program provide essential collaborative expertise in research and teaching to the program.
4. The recommendation to secure the firm commitment of KUMC administrative leadership to hire, at minimum, 2 faculty to implement the DCN program, has been met through communications from senior KUMC leadership, including Dean Abiodun Akinwuntan.
5. The recommendation to clarify teaching loads across program faculty within the department has been met with the 3-year teaching matrix supplied in response to reviewer recommendations.

Section 4: Academic support

The review committee reports that the DCN program proposal provides strong evidence that the academic support at the department, school and college level are appropriate to support the proposed DCN program and provide supportive commentary in three points below.

1. Comprehensive technical support for distance delivery technologies, as evidenced by current academic programs provided using these modalities, is strong evidence of potential program success.
2. It is clear that strong Institutional Review Board support exists and will be necessary to support DCN student research proposals and projects.
3. It is clear that strong central IT support is available at KUMC and that this infrastructure for online programs extends beyond curricula to all relevant student support services at KUMC (e.g., KUMC Computer Testing Center, Teaching and Learning Technologies, Academic Accommodations, and Counseling and Educational Support. Support services include Leadership, Human Resources, Student Services and Technology, etc.).

Section 5: Facilities and equipment

The review committee reports that the proposed DCN program proposal has met the need to describe available facilities and equipment for program needs and provide supportive commentary in three points below.

1. State-of-the-art clinical and technical facilities are available to support training the DCN program, including synchronous and asynchronous learning experiences.
2. The recommendations to more clearly describe adequate office space and resources for new faculty to perform their duties in teaching, research and administration have been met.
3. An excellent description of the superb career development resources for faculty at KUMC have been provided.

Section 6: Program review, assessment and accreditation

The review committee reports that the DCN program proposal has adequately outlined the elements of program assessment, review and accreditation; supportive commentary is provided in four points below.

1. The proposal describes elements of administration- and faculty-led DCN program evaluation including student application rates, retention rates and graduation rates, student course evaluation responses, student publications rates and national/regional presentation rates, program assessment surveys of graduates and employers immediately after graduation.
2. The recommendation to include screening interviews in the admission process with standard questions to evaluate knowledge of evidence-based practice, research experience/interest areas, and ideas for the clinical practice residency has been met.
3. The recommendation to establish and monitor additional student learning outcomes annually during the program has been met.
4. The recommendation to establish an advisory board for the DCN program was acknowledged and, contingent upon program approval and staffing, will be enacted.