

**Florida Board of Governors  
Request to Offer a New Degree Program**

University of Florida  
University Submitting Proposal

January, 2009  
Proposed Implementation Date

Graduate School

Interdisciplinary: College of Agricultural  
and Life Sciences, College of Medicine,  
College of Veterinary  
Medicine, College of Liberal Arts and  
Sciences

Name of College or School

Name of Department(s)

Nutritional Sciences  
Academic Specialty or Field

Doctor of Philosophy (CIP 30.1901)  
Complete Name of Degree  
(Include Proposed CIP Code)

**The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.**

June 15, 2007  
Date Approved by the University Board of Trustees

*Alanna F. Moore* 5-6-09  
Signature of Chair, Board of Trustees Date

*[Signature]* 5-6-09  
President Date

*[Signature]* 5-6-09  
Vice President for Academic Affairs Date

Provide headcount (HC) and full-time equivalent (FTE) student estimates of majors for Years 1 through 5. HC and FTE estimates should be identical to those in Table 1. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Table 2. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 (Total E&G divided by FTE).

Implementation  
Timeframe

Projected Student  
Enrollment (From Table 1)

Projected Program Costs  
(From Table 2)

	HC	FTE
Year 1	15	11.25
Year 2	17	12.75
Year 3	19	14.25
Year 4	22	16.50
Year 5	24	18.00

Total E&G Funding	Contract & Grants Funding	E&G Cost per FTE
362,247	132,000	32,200
\$416,022	264,000	23,112

*Note: This outline and the questions pertaining to each section must be reproduced within the body of the proposal to ensure that all sections have been satisfactorily addressed.*

## **INTRODUCTION**

### **I. Program Description and Relationship to System-Level Goals**

- A. Briefly describe within a few paragraphs the degree program under consideration, including (a) level; (b) emphases, including concentrations, tracks, or specializations; (c) total number of credit hours; and (d) overall purpose, including examples of employment or education opportunities that may be available to program graduates.**

The new PhD degree program in Nutritional Sciences (NS) is essentially a natural migration from the NS concentration within the Food Science and Human Nutrition (FSHN) graduate program with the addition of other UF grant generating faculty from other colleges as mentors to support student assistantships.

The PhD program in FSHN was established in 1979. FSHN doctoral students needed to show proficiency in both disciplines until 1993, when the separate concentrations in NS and Food Science (FS) were created at the request of faculty and graduate students. Prior to 1979, only the Master's degree in FS was offered.

The new degree program in Nutritional Sciences will be interdisciplinary and include faculty from the College of Agricultural and Life Sciences (CALS), College of Medicine (COM), College of Liberal Arts and Sciences (CLAS), and College of Veterinary Medicine (CVM). This brings together the full spectrum of research and practice in the nutritional sciences, enhances the educational experience for the students, and creates critical mass in faculty and resources currently distributed across the UF campus. Students would be admitted to the program after obtaining a Bachelor's or Master's degree in a related field. Emphasis areas will include basic nutritional sciences, biochemistry and molecular biology, genetics, immunology, physiology, and biostatistics, but there will not be separate tracks or specializations. A minimum of 90 credit hours beyond the Bachelor's degree will be required.

The field of nutritional science has unprecedented public interest. This is fostered by evolving links between diet and health, and the impact of one's individual genetic makeup on nutrient utilization. Consequently, there will be a continuing need for individuals with doctoral-level education to examine these relationships. The needed experience requires an integrative approach derived through interaction of students in NS with faculty in various other biological science disciplines. At top-tier institutions such as UC-Berkeley, UC-Davis, Cornell, Wisconsin, Penn State, and Illinois this interaction is accomplished through interdisciplinary NS graduate programs. These institutions are currently producing PhDs in NS with interdisciplinary experience.

Three factors make development of an interdisciplinary NS doctoral program at the University of Florida a logical next step from its current status as a concentration. The first is the breadth of opportunity available on the UF campus. Of the six institutions mentioned above, only one has a major health science center on its campus. This brings NS students at UF the opportunity to capitalize on a unique breadth of exposure in the biomedical and life sciences. The second is that the University has built a faculty with expertise in NS that is on par with NS programs at top-tier institutions. A more diverse program is necessary to attract the best students with an interest in this field for mentoring by this distinguished faculty. Finally, those students

who have received PhDs in NS have many career options. Many have accepted permanent positions directly upon completion of degree requirements.

The goal of the proposed interdisciplinary PhD program in NS is to broaden the experience of these students through interaction with faculty who have not previously been directly involved. The faculty, resources and courses needed for this expansion are already available on the UF campus.

- A. Describe how the proposed program is consistent with the current State University System (SUS) Strategic Planning Goals. Identify which goals the program will directly support and which goals the program will indirectly support. (See the SUS Strategic Plan at <http://www.flbog.org/about/strategicplan/>)**

The goal of the Nutritional Sciences PhD degree program is to expand the graduate education experience through an interdisciplinary environment and experience. The proposed NS interdisciplinary doctoral program is a logical outgrowth of the existing concentration developed in 1993.

The proposed Interdisciplinary Doctoral Program in Nutritional Sciences is congruent with all four goals of the SUS Strategic Plan:

*Goal 1: Access to and production of degrees.* The proposed program will widen access to and production of degrees as more mentors and funding resources will be brought into the program. This will provide enhanced funding for research assistantships and therefore, provide greater access to available resources with more doctoral degrees being produced.

*Goal 2: Meeting statewide professional and workforce needs.* The proposed program addresses statewide needs. There is unprecedented interest from the public for information on nutrition and health issues and the link between disease and poor nutrition. This requires a cadre of doctoral level experts well versed in the scientific basis for good nutritional practices.

*Goal 3: Building world-class academic programs and research capacity.* The proposed program will place UF among other world-class academic programs in the Nutritional Sciences. Enhanced research capacity will follow as at other institutions, such as UC-Berkeley, UC-Davis, Cornell, Wisconsin and Illinois, with similar interdisciplinary programs.

*Goal 4: Meeting community needs and fulfilling unique institutional responsibilities* The proposed program should augment the demonstrated career opportunities for individuals with doctoral level training in nutritional sciences. The breadth of academic programs and depth of the research enterprise at UF are unique, and development of this program builds upon established infrastructure and is a logical progression from a departmentally-based graduate concentration to a University-wide interdisciplinary program. The unique nature of UF with programs in agriculture, medicine, veterinary medicine, and public health make it the logical institution for this interdisciplinary graduate program within the SUS.

## INSTITUTIONAL AND STATE LEVEL ACCOUNTABILITY

### II. Need and Demand

- A. Need: Describe national, state, and/or local data that support the need for more people to be prepared in this program at this level. Reference national, state, and/or local plans or reports that support the need for this program and requests for the proposed program which have emanated from a perceived need by agencies or industries in your service area. Cite any specific need for research and service that the program would fulfill.**

National and state demand for people in this program by agencies, academia, and industry.

Recipients of Ph.D. degrees in the area of nutritional sciences are educated to enter diverse careers. These can range from research on nutrient utilization at the molecular level to public policy issues related to nutrition, such as obesity. The public has a keen interest in nutrition and health promotion that generates billions of dollars in nutrition-related commercial activity. Doctoral recipients in NS, because of the heavy emphasis on biochemistry and molecular biology, frequently enter the biotechnology field. Many others enter academia for teaching/research careers or as extension specialists. Nutrition-related product development is a major activity of many food/pharmaceutical companies, and these research activities are frequently administered and staffed by scientists with doctoral degrees in NS. For example, the National Cancer Institute has a major campaign to understand the role of nutrition in cancer risk/prevention. Ph.D.-level scientists are needed to understand the nature of such relationships. Recognizing these needs, the NIH and USDA offer peer-evaluated training grants for graduate students in NS.

Employment options for graduates.

The employment outlook for students with Ph.D. degrees in NS continues to be excellent. Recent degree recipients (10 years) have gone into postdoctoral research (NIH and NASA), nutrition research in the food industry, and academia (teaching/research). Among the employers are Hill's Pet Foods, University of Connecticut, Cornell University, Kemin Foods, Space Nutrition at Johnson Space Center (NASA), University of Florida, University of Surrey (UK), University of North Florida, the Mayo Clinic and Harvard School of Public Health, Ocean Spray Research, Wyeth Laboratories, the USDA Human Nutrition Research Center, and Ross Products Division of Abbott Labs. The American Society of Nutrition maintains a detailed description of career and employment opportunities ([www.nutrition.org/jobs/](http://www.nutrition.org/jobs/)). In addition, the American Association for the Advancement of Science through Science Careers (<http://nextwave.science.org/>) has job postings for the Nutritional Sciences.

- B. Demand: Describe data that support the assumption that students will enroll in the proposed program. Include descriptions of surveys or other communications with prospective students.**

Summary of student inquiries.

Faculty of the proposed interdisciplinary program get dozens of requests for information

about graduate education in NS. Queries are increasingly routed via the Internet. Consequently, most have websites that define the significant strength UF has for graduate education in the NS field. Currently, this diverse strength is not immediately obvious because no central doctoral program is emphasized. A separate NS doctoral program would correct that problem. The limiting factor for applicants for a PhD in Nutritional Sciences is availability graduate assistantships. Far more extremely well qualified students apply than can be supported. A number of applicants eventually matriculate at other institutions. Those losses are usually to Interdisciplinary Nutritional Sciences programs, such as that at Wisconsin. This year a total of 18 applicants with average GPAs of 3.56 and average GRE scores of 1238 applied to the Nutritional Sciences concentration, and only 4 were admitted. Most could not be accommodated because of funding limitations precipitated by the relatively small mentor pool available with the concentration of the FSHN department.

- C. If similar programs (either private or public) exist in the state, identify the institution(s) and geographic location(s). Summarize the outcome(s) of any communication with such programs with regard to the potential impact on their enrollment and opportunities for possible collaboration (instruction and research). Provide data that support the need for an additional program.**

There are no comparable programs in the state.

- D. Use Table 1 (A for undergraduate and B for graduate) to categorize projected student headcount (HC) and Full Time Equivalents (FTE) according to primary sources. Generally undergraduate FTE will be calculated as 40 credit hours per year and graduate FTE will be calculated as 32 credit hours per year. Describe the rationale underlying enrollment projections. If, initially, students within the institution are expected to change majors to enroll in the proposed program, describe the shifts from disciplines that will likely occur.**

It is anticipated that the number of graduate students majoring in Nutritional Sciences at the University of Florida will increase and, therefore, increase the total head count of doctoral students on campus as a result of approval of this new program. Advancing the NS graduate program from a concentration to a degree program will place UF on the same playing field with top-tier institutions, and allow us to attract more bright young students to the campus. Independent degree program status will also help to elevate the national visibility of the program.

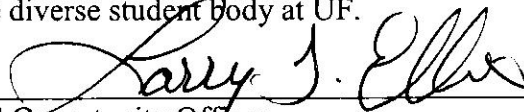
Because this new doctoral program is a migration from a concentration, students currently matriculated in that concentration would be merged into the new program. They would maintain the same mentoring committees and dissertation topics. Therefore, in year 1, eleven students would be migrated into the new program and an additional 13 students would be recruiting, bringing the total to 24 (Table 1-B). We do not expect to experience a shift of students to this program from other existing programs, since the NS concentration has been available for over 10 years and shifts have not occurred.

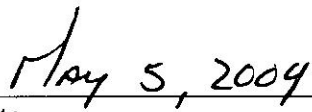
As program visibility increases over time, and funding for assistantships increases, we expect to add four to six students per year through year five to achieve a stable enrollment of about 24 in the program.

Students enrolled in the program will be supported by either fellowships or assistantships, and are required to register for 9 credit hours per semester during the academic year, and 6 credit hours during summer, for a total of 24 hours per year. Students on fellowships will be enrolled at a slightly higher level, with 12 credit hours per semester during the academic year, and 8 credit hours during the summer, for a total of 32 credit hours per year. Therefore, the average graduate student equals 0.75 FTE.

- E. Indicate what steps will be taken to achieve a diverse student body in this program, and identify any minority groups that will be favorably or unfavorably impacted. The university's Equal Opportunity Officer should read this section and then sign and date in the area below.**

The new degree program in Nutritional Sciences will follow the same standard practices and procedures as expected of all programs at the University of Florida to ensure its full availability to the diverse student body at UF.

  
\_\_\_\_\_  
Equal Opportunity Officer

  
\_\_\_\_\_  
Date

### III. Budget

- A. Use Table 2 to display projected costs and associated funding sources for Year 1 and Year 5 of program operation. Use Table 3 to show how existing Education & General funds will be shifted to support the new program in Year 1. In narrative form, summarize the contents of both tables, identifying the source of both current and new resources to be devoted to the proposed program. (Data for Year 1 and Year 5 reflect snapshots in time rather than cumulative costs.)**

Table 2 specifies the E&G and C&G funding allocated to the new program. Since the proposed program currently exists as a concentration within the FSHN PhD program, the majority of costs in Table 2, year 1 are being incurred already. Furthermore, enrollment is projected to increase, causing the E&G cost per student FTE to decrease over time since new extramural funding will provide the vast majority of increased program costs.

The values shown in Table 3 were derived from estimates of time faculty will devote to this graduate program. These expenses will be absorbed by the home departments of the participating faculty in this interdisciplinary program. It is anticipated that the net result of establishing this new program will be an increase in students enrolled at UF and increased extramural funding to support them. It is not expected that this new program will be detrimental to existing programs.

- B. If other programs will be impacted by a reallocation of resources for the proposed program, identify the program and provide a justification for reallocating resources. Specifically address the potential negative impacts that implementation of the proposed program will have on related undergraduate programs (i.e., shift in faculty effort, reallocation of instructional resources, reduced enrollment rates, greater use of adjunct**

**faculty and teaching assistants). Explain what steps will be taken to mitigate any such impacts. Also, discuss the potential positive impacts that the proposed program might have on related undergraduate programs (i.e., increased undergraduate research opportunities, improved quality of instruction associated with cutting-edge research, improved labs and library resources).**

The approval of the proposed Nutritional Sciences doctoral program is not expected to have a negative impact on undergraduate programs at UF. In fact, the undergraduate NS major has over 700 students. These students educated in basic sciences will form one pool of potential graduate students and will provide them with another career option. The interdisciplinary nature of the proposed NS program will improve research and instructional activities for undergraduates in the NS major through interaction with graduate students in the field.

**C. Describe other potential impacts on related programs or departments (e.g., increased need for general education or common prerequisite courses, or increased need for required or elective courses outside of the proposed major).**

The NS concentration within the FSHN doctoral program will not be needed following approval of the new degree program, thus it will be eliminated. Since this is effectively a migration of students, faculty and resources from one program to another, it has no net impact on graduate programs at UF.

The courses in the proposed curriculum currently exist and are service courses for numerous graduate programs in the biological sciences. Consequently, they will not be impacted by the additional student numbers generated after the program is approved.

**D. Describe what steps have been taken to obtain information regarding resources (financial and in-kind) available outside the institution (businesses, industrial organizations, governmental entities, etc.). Describe the external resources that appear to be available to support the proposed program.**

A number of institutes of the NIH offer funds for training grants in nutritional science to provide tuition and stipends for graduate students (T32 Institutional Research Service Awards). The University received one of these in the past, which was an interdepartmental nutritional sciences training effort between CALS and COM. The increased size of the participating faculty and the quality of the applicant pool should further enhance success in obtaining such funds. As more external resources need to be diverted to pay tuition of supported students, we need to move to an interdisciplinary program to be in the best position to attract extramural funds for student support. The USDA has a comparable graduate aid program (National Needs Program). Applications will be made to acquire those funds as well.

#### **IV. Projected Benefit of the Program to the University, Local Community, and State**

**Use information from Table 1, Table 2, and the supporting narrative for “Need and Demand” to prepare a concise statement that describes the projected benefit to the university, local community, and the state if the program is implemented. The projected benefits can be both quantitative and qualitative in nature, but there needs to be a clear distinction made between the two in the narrative.**

Currently, select graduate programs in Nutritional Sciences (Illinois, Wisconsin, Cornell, Penn State, UC-Davis, and UC-Berkeley) have interdisciplinary doctoral programs. This allows their faculty, who have appointments in fields related to Nutritional Sciences, to participate in education and research training in this field. A program with greater breadth and depth of faculty will enhance the likelihood of UF acquiring training grant support and thus benefit the state.

**V. Access and Articulation – Bachelor’s Degrees Only**

- A. If the total number of credit hours to earn a degree exceeds 120, provide a justification for an exception to the policy of a 120 maximum and submit a request to the BOG for an exception along with notification of the program’s approval. (See criteria in BOG Regulation 6C-8.014)**

N/A

- B. List program prerequisites and provide assurance that they are the same as the approved common prerequisites for other such degree programs within the SUS (see Common Prerequisite Manual <http://www.facts.org>). The courses in the Common Prerequisite Counseling Manual are intended to be those that are required of both native and transfer students prior to entrance to the major program, not simply lower-level courses that are required prior to graduation. The common prerequisites and substitute courses are mandatory for all institution programs listed, and must be approved by the Articulation Coordinating Committee (ACC). This requirement includes those programs designated as “limited access.”**

**If the proposed prerequisites they are not listed in the Manual, provide a rationale for a request for exception to the policy of common prerequisites. NOTE: Typically, all lower-division courses required for admission into the major will be considered prerequisites. The curriculum can require lower-division courses that are not prerequisites for admission into the major, as long as those courses are built into the curriculum for the upper-level 60 credit hours. If there are already common prerequisites for other degree programs with the same proposed CIP, every effort must be made to utilize the previously approved prerequisites instead of recommending an additional “track” of prerequisites for that CIP. Additional tracks may not be approved by the ACC, thereby holding up the full approval of the degree program. Programs will not be entered into the State University System Inventory until any exceptions to the approved common prerequisites are approved by the ACC.**

N/A

- C. If the university intends to seek formal Limited Access status for the proposed program, provide a rationale that includes an analysis of diversity issues with respect to such a designation. Explain how the university will ensure that community college transfer students are not disadvantaged by the Limited Access status. NOTE: The policy and criteria for Limited Access are identified in BOG Regulation 6C-8.013. Submit the Limited Access Program Request form along with this document.**

N/A

- D. If the proposed program is an AS-to-BS capstone, ensure that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as**



set forth in Rule 6A-10.024 (see Statewide Articulation Manual <http://www.facts.org>). List the prerequisites, if any, including the specific AS degrees which may transfer into the program.

N/A

## **INSTITUTIONAL READINESS**

### **VI. Related Institutional Mission and Strength**

#### **A. Describe how the goals of the proposed program relate to the institutional mission statement as contained in the SUS Strategic Plan and the University Strategic Plan.**

The UF Strategic Plan has listed Biological Sciences as an area of emphasis. Nutrition as a field is central to life and is a subject of strong continued interest from the public since it encompasses personal health and that of domestic animals. The issues in nutritional sciences are being approached from virtually all venues in the biological sciences, including genomics, epigenetics, bioinformatics, molecular biology, transgenic animal models, analytical biochemistry, clinical research, biostatistics, etc. The abundance of resources available for graduate students at UF provides an exceptionally wide spectrum of research opportunities that are not available at even the largest NS programs at other institutions.

#### **B. Describe how the proposed program specifically relates to existing institutional strengths, such as programs of emphasis, other academic programs, and/or institutes and centers.**

At the present time, UF has a robust array of courses in NS and a very active research seminar program that attracts national and international leaders in the field to the UF campus. These activities contribute to other related programs on the campus, including Aging, Animal Sciences, Veterinary Medicine, Applied Physiology and Kinesiology, and Medicine. While the faculty involved in the interdisciplinary NS program are from diverse backgrounds, most have contributed their expertise to the NS field through leadership roles in professional societies in nutrition and in editorial roles for journals in the NS field.

The faculty associated with the NS program are nationally and internationally recognized, and have an impressive list of achievements and awards, including a member of the National Academy of Sciences, commensurate with top-tier institutions. In addition, the NS faculty has a rich history of training postdoctoral research scientists. While post-doctoral scientists do not teach many formal lectures, their research expertise enriches the educational experience of graduate students with whom they interact.

#### **C. Provide a narrative of the planning process leading up to submission of this proposal. Include a chronology (table) of activities, listing both university personnel directly involved and external individuals who participated in planning. Provide a timetable of events necessary for the implementation of the proposed program.**

Chronology of activities:

In March 1998, in a report of a USDA-coordinated review of the FSHN Department, team member Dr. Barry Shane, Chair, Department of Nutritional Sciences at UC-Berkeley, noted, “despite the relatively small number of nutrition faculty, they have made a major impact and have a very strong program with high national visibility.” Further in the report, “The possibility of campus-wide graduate groups, as opposed to departmental graduate programs, might be explored as a mechanism for developing stronger graduate programs and increase the likelihood of extramural funding.”

In May 2002, the Presidential Task Force on the Future of the University of Florida completed a report. Among the recommendations was one that emphasized expanding graduate education at the doctoral level, and another to promote interdisciplinary research in the biological sciences. That report meshed well with informal discussions that had been ongoing by the Nutritional Sciences faculty of the Food Science and Human Nutrition Department. The recommendations further echoed the earlier external review, which suggested that the departmental graduate program should be expanded and strengthened. Feedback has been obtained from alumni of the NS graduate program. The latter indicated that the FSHN graduate program was actually two programs operating as one. This was correct, since there are no mutual courses, admissions to the two concentrations are administered by the two respective faculties within the department, and the NS concentration includes extensive course work in Biochemistry and Molecular Biology (BCH) and other life sciences.

#### Planning Process/Events Leading to Implementation:

In September 2003, the creation of interdepartmental graduate programs was discussed at the IFAS Faculty Advisory Committee meeting attended by IFAS Vice President, Michael Martin. NS was used as an example of such a new program.

In November 2004, Dr. Jimmy Cheek, who, at the time, was Dean of the College of Agricultural and Life Sciences and is now Senior Vice President for Agriculture and Natural Resources, met at his request with Dr. Robert Cousins, Director of the Center for Nutritional Sciences, to stress his desire to support the creation of an interdisciplinary graduate program in NS. It was to be modeled after the approved interdisciplinary programs in Plant Molecular and Cellular Biology and Animal Molecular and Cellular Biology.

In December 2004, the Nutritional Sciences faculty of the FSHN department voted to establish a separate graduate program as a natural migration from the concentration to enhance the scope of the NS program and to attract the best graduate students. Informal discussions were held with Dr. Kenneth Gerhardt, Interim Dean of the Graduate School.

In January 2005, Dr. Charles Sims, Chair of the FSHN department, appointed a committee composed of R. Cousins, Chair; J. Gregory; B. Langkamp-Henken; and M. Knutson with the charge to develop the Doctoral Degree Program.

The “New Degree Program Proposal” for the Nutritional Sciences (CIP 30.1901) program was completed in January, 2006. The subsequent approval process included the UF Faculty

Senate and Board of Trustees and was placed on the agenda for the Board of Governors meeting of December 6, 2007. However, the proposal was withdrawn from consideration by UF administration. The current proposal is in the recently revised New Degree Program format.

## **VII. Program Quality Indicators - Reviews and Accreditation**

**Identify program reviews, accreditation visits, or internal reviews for any university degree programs related to the proposed program, especially any within the same academic unit. List all recommendations and summarize the institution's progress in implementing the recommendations.**

As stated in the previous section, a departmental review of FSHN in 1998 revealed the need for an interdisciplinary degree program in nutritional sciences. During 2007, the National Research Council of the National Academies conducted a review of doctoral programs in the U.S. Of note is that, in the new NRC review, Nutritional Sciences was reviewed as a distinct graduate degree discipline. It was planned to have the proposed program in place by the start of that review but approval delays precluded that approach. There are no national accreditation guidelines for nutritional sciences in the United States.

## **VIII. Curriculum**

**A. Describe the specific expected student learning outcomes associated with the proposed program. If a bachelor's degree program, include a web link to the Academic Learning Compact or include the document itself as an appendix.**

The program of study will rely on existing courses offered at UF by current faculty members. The curriculum and general requirements (e.g., admission standards, structure of supervisory committee, admission to candidacy, and dissertation and final exam policies) for the proposed PhD degree in Nutritional Sciences will be similar to the concentration in Nutritional Sciences for the doctoral degree presently awarded in Food Science and Human Nutrition. The PhD degree in NS is a research degree that focuses on basic research. Doctoral students will spend about five years beyond a bachelor's degree or at least three years beyond a master's degree in a combined program of formal coursework and dissertation research. Students will be involved in research throughout their entire doctoral program.

**B. Describe the admission standards and graduation requirements for the program.**

Direct admission to the NS doctoral program will require a high GRE score (Verbal plus Quantitative), and a minimum undergraduate Grade Point Average (GPA) of 3.0 (4.0=A) over the last 60 credits (junior and senior years). A 3.0 average in science courses is essential. Under unusual circumstances and with justification, a slightly lower GRE or GPA may be the basis for conditional admittance. As indicated previously, doctoral applicants for August, 2008 had an average GPA of 3.56 and average GRE scores of 1238. In addition, international students must submit an acceptable score on the Test of English as a Foreign Language score (TOEFL).

Applicants must be full-time students, be in good academic standing, complete a departmental Course Work Plan, and establish a Supervisory Committee comprised of at least

three faculty from the Interdisciplinary Program and one outside faculty member. Additionally, doctoral students are to pass a qualifying exam administered by their committee, complete research and proposed coursework, and complete and defend a doctoral dissertation to graduate with the NS doctoral program.

**C. Describe the curricular framework for the proposed program, including number of credit hours and composition of required core courses, restricted electives, unrestricted electives, thesis requirements, and dissertation requirements. Identify the total numbers of semester credit hours for the degree.**

The Supervisory Committee for doctoral programs shall consist of a minimum of four members selected from the graduate faculty. At least three members must be from faculty of the Interdisciplinary Program in Nutritional Sciences and one member from a different program. A minimum of 90 credits of formal coursework and research beyond the bachelor's degree or 60 beyond a Master's degree is required for the Ph.D. degree. 25% Students entering the doctoral program with a completed M.S. degree or appropriate graduate work may transfer credit hours; subject to existing graduate school policies. Candidates for the doctoral degree must complete at least 3 years in residence at the University of Florida campus.

The qualifying examination is required of all candidates for the PhD, and can only be taken while the student is appropriately registered. It is a single examination consisting of two parts, written and oral. It will be developed and administered by the supervisory committee. The examination requirements will be consistent with Graduate Council policy as stated in the UF Graduate catalog. The student is considered to have satisfactorily passed the qualifying exam when the decision of the supervisory committee is unanimously affirmed. If the examination is unsatisfactory, the supervisory committee may permit a second examination or deny the student continued registration in the program.

**D. Provide a sequenced course of study for all majors, concentrations, or areas of emphasis within the proposed program.**

General Required Core Courses

Catalog #	Course Title	Credits
BCH 6206	Advanced Metabolism	3
FOS 6915	Research Planning	2
HUN 6245	Advanced Human Nutrition*	3
or		
ANS 5446	Animal Nutrition*	3
HUN 6938	Nutritional Sciences Seminar	1 each year; max 4
STA 6166	Statistical Methods in Research I (or approved equivalent)	3

\* = The student must take one of these courses.

Plus at least 6 of the following:

Catalog #	Course Title	Credits
HUN 5246	Current Issues in Dietary Supplements	2
HUN 5441	Metabolic Response to Enteral and Parenteral Nutrition	2
HUN 5447	Nutrition and Immunity	3
HUN 6301	Nutritional Aspects of Lipid Metabolism	3
HUN 6305	Nutritional Aspects of Carbohydrates	3
HUN 6321	Proteins and Amino Acids in Nutrition	4
HUN 6331	Vitamins in Human Nutrition <u>or</u>	3
ANS 6449	Vitamins	3
HUN 6356	Minerals in Nutrition <u>or</u>	3
ANS 6723	Mineral Nutrition and Metabolism	3
HUN 6812C	Analytical Techniques in Nutritional Biochemistry	1
HUN 6939	Advanced Clinical Nutrition	2

In addition to the general core courses described above, students are required to meet credit requirements through additional course work as determined by the Supervisory Committee. Course selection is based on individual scientific interests and future career goals.

The following courses are recommended:

Catalog #	Course Title	Credits
ANS 6718	Nutritional Physiology of Domestic Animals <u>or</u>	3
VME 5244	Physiology: Organ Systems	4
BCH 5413	Mammalian Molecular Biology and Genetics	3
GMS 6140	Principles of Immunology	3

Selected elective courses (based on student interest and goals) include but are not limited to:

Catalog #	Course Title	Credits
ANG 5467	Culture and Nutrition	3
ANS 6458	Advanced Methods in Nutrition Technology	3
ANS 6717	Energy Metabolism	3
ANS 6767	Molecular Endocrinology	3
BCH 6415	Advanced Molecular & Cell Biology	3
CAP 5510	Bioinformatics	3
CHM 6670	Inorganic Biochemistry	3
GEY 6646	Issues and Concepts in Gerontology	3
GMS 6011	Mouse Genetics	1
GMS 6012	Human Genetics	1
GMS 6403	Advanced Endocrinology	4
GMS 6800	Fundamentals of Epidemiology	3
GMS 6814	Molecular and Genetic Epidemiology	2
HSC 6507	Epidemiology	3
PET 6355C	Physiological Bases of Exercise and Sport Sciences	3

PET 7368	Exercise Metabolism	3
STA 6167	Statistical Methods in Research II	3
VME 6602	General Toxicology	3

Additionally, students are required to present a 40-minute seminar once each year, except for the first year of study, and enroll in Nutritional Sciences Seminar course (HUN 6938) during the semester of each presentation. The annual seminars will be on general topics approved by the Major Professor and Seminar Coordinator, and are considered as teaching experience. The final seminar will be a presentation of dissertation research results.

**E. Provide a one- or two-sentence description of each required or elective course.**

Required and highly recommended courses include:

BCH 6206 – Advanced Metabolism. The reactions of intermediary metabolism with emphasis on their integrations, mechanisms, and control. Examples from current literature extensively discussed.

FOS 6915 – Research Planning. *Required for first-year graduate students.* Planning and initiating research, experimental techniques, analysis of data, reporting of results.

HUN 6812C – Analytical Techniques in Nutritional Biochemistry. Biochemical analyses of tissues and fluids, radio-tracer methodology, metabolic studies, tissue handling, and formulation of experimental animal diets.

HUN 5246 – Current Issues in Dietary Supplements. Federal laws and regulations covering definition, marketing, and labeling of dietary supplements. Discussion of specific vitamins, minerals, herbs, and ergogenic aids. Review of scientific literature and public information.

HUN 5441 – Metabolic Response to Enteral and Parenteral Nutrition. Response of the body's organ systems to nutritional support by the enteral and parenteral routes, with emphasis on physiological and biochemical adaptations.

HUN 5447 – Nutrition and Immunity. The role of nutrition in immunity. Effect of nutrients, foods, and dietary supplements on regulation of immune system.

HUN 6245 – Advanced Human Nutrition. Ingestion, digestion, absorption, transport, metabolism, and excretion of nutrients; metabolic and neuroendocrine controls.

HUN 6301 – Nutritional Aspects of Lipid Metabolism. Role of lipids in nutrition, with emphasis on energy metabolism and derangements in chronic diseases.

HUN 6305 – Nutritional Aspects of Carbohydrates. Characteristics, absorption, and metabolism of common carbohydrates in the food chain; carbohydrate metabolism and its regulation; carbohydrate metabolism in disease.

HUN 6321 – Proteins and Amino Acids in Nutrition. Digestion, absorption, and degradation; emphasis on turnover, requirements, assessment of quality, and effects of deficiencies, toxicities, and physiological stresses.

HUN 6331 – Vitamins in Human Nutrition. Biochemical and physiological functions; nutrient requirements and interactions; response to deficiencies and excesses; or

ANS 6449 – Vitamins. Historical development, properties, assays, and physiological effects.

HUN 6356 – Minerals in Nutrition. Biochemical and physiological aspects of mineral absorption, metabolism, and function; or

ANS 6723 – Mineral Nutrition and Metabolism. Physiological effects of macro- and micro-elements, mineral interrelationships.

HUN 6938 – Nutritional Sciences Seminar. Presentation of reports on research in nutrition.  
HUN 6939 – Advanced Clinical Nutrition. Application of normal and therapeutic nutrition principles to specific clinical topics based on cases from health center environment.  
STA 6166 – Statistical Methods in Research I. Analysis of variance for basic experimental designs.

Optional courses include:

ANS 6458 – Advanced Methods in Nutrition Technology. Demonstrations and limited performance of procedures used in nutrition research.  
BCH 5413 – Mammalian Molecular Biology and Genetics. Biochemical and genetic approaches to understanding vertebrate and particularly mammalian molecular biology, moving from basic processes of replication, transcription, and protein synthesis to signal transduction, cell cycle, cancer, genomics, and developmental genetics.  
BCH 6415 – Advanced Molecular and Cell Biology. Molecular biology of pro- and eukaryotic organisms, emphasis on understanding selected aspects of molecular regulation of gene expression.  
ANS 6718 – Nutritional Physiology of Domestic Animals. Integration of endocrine, biochemical, molecular control of nutritional processes in domestic animals; or  
VME 5244 – Physiology: Organ Systems. Physiology of nervous, muscle, blood, cardiovascular, respiratory, renal, gastrointestinal, and endocrine systems.  
GMS 6140 – Principles of Immunology. Biological and biochemical aspects of hosts' resistance and immunity; the chemical and physiochemical properties of the proteins of immune reactions.

Selected elective courses (based on interest and career goals):

ANG 5467 – Culture and Nutrition. The theory, methodology, and substantive material of nutritional anthropology. Emphasis on cross-cultural bio-behavioral patterns.  
ANS 5446 – Animal Nutrition. Carbohydrates, fats, proteins, minerals, and vitamins, and their functions in the animal body.  
ANS 6717 – Energy Metabolism.  
ANS 6767 – Molecular Endocrinology. Molecular basis of hormone action and regulation, and emerging techniques in endocrine system study; emphasis on molecular mechanisms of growth, development, and reproduction.  
CAP 5510 – Bioinformatics. Basic concepts of molecular biology and computer science.  
GHM 6670 – Inorganic Biochemistry. Role of elements in biology. Modern spectroscopic and physical methods for study of Group I and II metals, metalloenzymes, metal ion transport and storage, functions of nonmetals in biochemical systems, and biomedical/biotechnical applications of metals.  
GEY 6646 – Issues and Concepts in Gerontology. A multi-disciplinary, team-taught survey of the field.  
GMS 6011 – Mouse Genetics. Theoretical framework for understanding fundamentals of mouse genetics and use of mouse model for study of human disease as well as advanced technical tools used for research and their application to novel problems.

GMS 6012 – Human Genetics. Theoretical framework for understanding fundamentals of human genetics as well as advanced technical tools used for research.

GMS 6403 – Advanced Endocrinology. Readings, discussions, and lectures on recent advances in endocrinology.

GMS 6800 – Fundamentals of Epidemiology. Introduction to epidemiology principles and methods for students majoring in any aspect of health.

GMS 6814 – Molecular Genetic Epidemiology. Description of use of human genetics and molecular biology in studying host susceptibility to disease. Mendelian and non-Mendelian genetics.

HSC 6507 – Epidemiology. Procedures used in study of origin, distribution, and control of chronic and communicable diseases; emphasis on role of health education interventions in disease control.

PET 6355C – Physiological Bases of Exercise and Sport Sciences. Application of fundamental concepts of human physiology to programs of physical education and sports. Recent research developments in sports physiology.

PET 7368 – Exercise Metabolism. Principles of metabolic regulation during exercise; effects of chronic exercise on muscle metabolism.

STA 6167 – Statistical Methods in Research II. Analysis of covariance and general linear model. Factorial, nested, split-plot, and incomplete block designs. Analysis of count data.

VME 6602 – General Toxicology. General principles of toxicology and mechanisms by which toxic effects occur in target organs and tissues.

- F. For degree programs in the science and technology disciplines, discuss how industry-driven competencies were identified and incorporated into the curriculum and identify if any industry advisory council exists to provide input for curriculum development and student assessment.**

In the Nutritional Sciences field, there are no industry-driven competencies or guidelines. Rather, our doctoral graduates have gained wide acceptance within the industry through our combination of a strong didactic curriculum in basic science and independent research experience in contemporary topics of interest in the field.

- G. For all programs, list the specialized accreditation agencies and learned societies that would be concerned with the proposed program. Will the university seek accreditation for the program if it is available? If not, why? Provide a brief timeline for seeking accreditation, if appropriate.**

There are no accreditation guidelines for the Nutritional Sciences.

- H. For doctoral programs, list the accreditation agencies and learned societies that would be concerned with corresponding bachelor's or master's programs associated with the proposed program. Are the programs accredited? If not, why?**

Doctoral programs are not accredited by professional societies. This doctoral program in Nutritional Sciences would be a graduate program listed by the American Society for Nutrition. The University of Florida is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award doctoral degrees.



- I. **Briefly describe the anticipated delivery system for the proposed program (e.g., traditional delivery on main campus; traditional delivery at branch campuses or centers; or nontraditional delivery such as distance or distributed learning, self-paced instruction, or external degree programs). If the proposed delivery system will require specialized services or greater than normal financial support, include projected costs in Table 2. Provide a narrative describing the feasibility of delivering the proposed program through collaboration with other universities, both public and private. Cite specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.**

This program will be offered to full-time students at the main campus of the University of Florida using existing faculty from various colleges and departments. One member of the faculty for the proposed program is based at the IFAS Range Cattle Research and Education Center at Ona, FL, but is tenured through the Animal Sciences on the main campus. Only graduate faculty will be eligible to serve on the student's supervisory committee. The residency requirement policy for UF will be followed, and students will be enrolled full-time for a minimum of three years.

No specialized services are needed for the proposed delivery system. It is not anticipated that the proposed doctoral program will involve other universities and no such queries have arisen.

## **IX. Faculty Participation**

- A. **Use Table 4 to identify existing and anticipated ranked (not visiting or adjunct) faculty who will participate in the proposed program through Year 5. Include (a) faculty code associated with the source of funding for the position; (b) name; (c) highest degree held; (d) academic discipline or specialization; (e) contract status (tenure, tenure-earning, or multi-year annual [MYA]); (f) contract length in months; and (g) percent of annual effort that will be directed toward the proposed program (instruction, advising, supervising internships and practica, and supervising thesis or dissertation hours).**

Table 4 lists the Graduate Faculty who will participate in the NS doctoral program, and will serve as chairs or members of supervisory committees of students. External members of these committees will be chosen from the over 2800 graduate faculty members not affiliated with the NS program. Table C shows the graduate committee activity for each NS faculty member and their research publication record.

- B. **Use Table 2 to display the costs and associated funding resources for existing and anticipated ranked faculty (as identified in Table 2). Costs for visiting and adjunct faculty should be included in the category of Other Personnel Services (OPS). Provide a narrative summarizing projected costs and funding sources.**

Data for Table 2 were derived from current salary and benefits of the 26 faculty and one TEAMS staff member. Current assistantship funding is shown. The year 5 estimates are based on a 10% salary/fringe increase, a 25% increase in E&C-assistantship support and a 100% increase in C&G supported assistantships. Faculty in year 5 are estimated to increase by 0.1 PY, (2 new FTE

at 5% effort for each).

**C. Provide the number of master's theses and/or doctoral dissertations directed, and the number and type of professional publications for each existing faculty member (do not include information for visiting or adjunct faculty).**

Faculty Name	Theses	Dissertations	Professional Publications
Adesogan, Adegbola	2	7	39
Badinga, Lokenga	4	4	55
Bailey, Lynn	26	6	100
Bobroff, Linda	18	0	9
Borum, Peggy	19	2	55
Clare-Salzer, Michael	0	0	78
Cousins, Robert	17	22	209
Dahl, Wendy	1	0	10
Frost, Susan	2	6	37
Gregory, Jesse	18	6	215
Hill, Richard	1	0	58
Kauwell, Gail	32	0	27
Kilberg, Michael	0	20	110
Knutson, Mitchell	3	2	23
Langkamp-Henken, Bobbi	20	1	26
Leeuwenburgh, Christian	12	5	102
Mathews, Clayton	1	2	39
Neu, Josef	0	0	83
Novak, Donald	0	0	58
Percival, Susan	17	3	70
Perri, Michael G.	10	12	84
Rowland, Neil E.	16	13	290
Samuelson, Don	5	5	58
Shay, Neil	0	0	33
Sitren, Harry	24	2	58
Stacpoole, Peter	1	0	160

**D. Provide evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, as well as qualitative indicators of excellence.**

The Nutritional Sciences Concentration of the Food Science and Human Nutrition Department has a track record of 21 Ph.D. degrees awarded since its inception in 1993. During that period of time, many students have received national and local awards for their dissertation research in NS. Ph.D. recipients from this concentration have excelled in the job market, with positions in industry, government, and academia. The faculty associated with the NS program are national and internationally recognized and have an impressive list of achievements and awards, including awards from the American Society for Nutrition and a member of the National Academy of Sciences, commensurate with top-tier institutions.

The NS faculty has a rich history of training over 50 postdoctoral research scientists. While these trainees do not teach formal lectures, their research expertise enriches the

educational experience of graduate students with whom they interact.

It is anticipated that public interest in diet and health promotion, and the evolving links between diet and disease, will provide a robust array of career opportunities for doctoral recipients in Nutritional Sciences.

The NS participating faculty have an excellent record of external funding, including research grants from the National Institutes of Health and United States Department of Agriculture. Graduate student research is published in excellent peer-reviewed journals; including: *Proceedings of the National Academy of Sciences*, *Journal of Biological Chemistry*, *Journal of Nutrition*, *American Journal of Physiology*, and *American Journal of Clinical Nutrition*. Numerous students have co-authored review articles with their mentors.

## **X. Non-Faculty Resources**

- A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5. Provide the total number of volumes and serials available in this discipline and related fields. List major journals that are available to the university's students. Include a signed statement from the Library Director that this subsection and subsection B have been reviewed and approved for all doctoral level proposals.**

UF library statistics for 2004-2005 indicate the UF library system has over 4,000,000 catalogued volumes. Of particular relevance to this new graduate degree program are the 350,000 volumes in the Health Sciences Library, and the 679,000 volumes in the Marston Science Library. Library expenditures for 2004-2005 were \$10,167,169. The total number of journal subscriptions is 5,000. From electronic collections, it is possible to review full text articles from about 30,000 journals.

- B. Describe additional library resources that are needed to implement and/or sustain the program through Year 5. Include projected costs of additional library resources in Table 3.**

No additional library resources are needed for the implementation of this program.

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Library Director

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Date

- C. Describe classroom, teaching laboratory, research laboratory, office, and other types of space that are necessary and currently available to implement the proposed program through Year 5.**

Facilities available to students in the Nutritional Sciences graduate program will be derived from the multiple academic units participating. This will include laboratory facilities of the NS faculty, classrooms, computer facilities, research animal facilities, the Clinical Research Center, and core laboratories of the Interdisciplinary Center for Biotechnology Research (ICBR), Genetics Institute, and Brain Institute.

- D. Describe additional classroom, teaching laboratory, research laboratory, office, and other space needed to implement and/or maintain the proposed program through Year 5. Include any projected Instruction and Research (I&R) costs of additional space in Table 2. Do not include costs for new construction because that information should be provided in response to X (J) below.**

No new space is required to implement this new degree program.

- E. Describe specialized equipment that is currently available to implement the proposed program through Year 5. Focus primarily on instructional and research requirements.**

Laboratories of NS interdisciplinary faculty have state-of-the-art research equipment needed for contemporary biological research. This includes advanced equipment for genomic analysis, mass spectrometry for stable isotope metabolic studies, quantitative polymerase chain reaction, fluorescence microscopy, cell culture for human and animal cells. Core laboratories of the various Institutes and ICBR further expand opportunities for graduate students in this program.

- F. Describe additional specialized equipment that will be needed to implement and/or sustain the proposed program through Year 5. Include projected costs of additional equipment in Table 2.**

No additional equipment is needed to initiate this degree program.

- G. Describe any additional special categories of resources needed to implement the program through Year 5 (access to proprietary research facilities, specialized services, extended travel, etc.). Include projected costs of special resources in Table 2.**

All of the resources necessary to offer the Ph.D. in Nutritional Sciences are currently available.

- H. Describe fellowships, scholarships, and graduate assistantships to be allocated to the proposed program through Year 5. Include the projected costs in Table 2.**

Students admitted to the NS doctoral program will be eligible for Presidential Fellowships, Alumni Graduate Awards, and Research Assistantships based on past record of achievement. NS students recruited to this program will be eligible to be considered for the Davis Graduate Nutrition Enhancement Awards, which provide an extra stipend of \$5,000 per year. These supplements are awarded on a competitive basis by a faculty committee. This interdisciplinary doctoral program would be able to compete for training grants in nutritional sciences that are awarded by the NIH. It is anticipated that all doctoral students in this program will receive assistantship or fellowship support. Most assistantships will be provided through extramural research project funding.

- I. Describe currently available sites for internship and practicum experiences, if appropriate to the program. Describe plans to seek additional sites in Years 1 through 5.**

Internships are not part of the educational requirements for this program. Some students may elect to do postdoctoral training upon completion of the Ph.D.

- J. If a new capital expenditure for instructional or research space is required, indicate where this item appears on the university's fixed capital outlay priority list. Table 2 includes only Instruction and Research (I&R) costs. If non-I&R costs, such as indirect costs affecting libraries and student services, are expected to increase as a result of the program, describe and estimate those expenses in narrative form below. It is expected that high enrollment programs in particular would necessitate increased costs in non-I&R activities.**

No new capital expenditures will be required to initiative the program.

**TABLE 1-B  
PROJECTED HEADCOUNT FROM POTENTIAL SOURCES  
(Graduate Degree Program)**

Source of Students (Non-duplicated headcount in any given year)*	Year 1		Year 2		Year 3		Year 4		Year 5	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Individuals drawn from agencies/industries in your service area (e.g., older returning students)	0	0	0	0	0	0	0	0	0	0
Students who transfer from other graduate programs within the university**	11	8.25	0	0	0	0	0	0	0	0
Individuals who have recently graduated from preceding degree programs at this university	1	0.75	1	0.75	1	0.75	1	0.75	1	0.75
Individuals who graduated from preceding degree programs at other Florida public universities	1	0.75	1	0.75	1	0.75	1	0.75	1	0.75
Individuals who graduated from preceding degree programs at non-public Florida institutions	0	0	0	0	0	0	0	0	0	0
Additional in-state residents***	0	0	0	0	0	0	0	0	0	0
Additional out-of-state residents***	1	0.75	3	2.25	3	2.25	4	3	3	2.25
Additional foreign residents***	1	0.75	1	0.75	1	0.75	1	0.75	1	0.75
Other (Explain)*** Carry over enrollment from previous year	0	0	11	8.25	13	9.75	15	11.25	18	13.5
<b>Totals</b>	<b>15</b>	<b>11.25</b>	<b>17</b>	<b>12.75</b>	<b>19</b>	<b>14.25</b>	<b>22</b>	<b>16.5</b>	<b>24</b>	<b>18</b>

**TABLE 2  
PROJECTED COSTS AND FUNDING SOURCES**

Instruction & Research Costs (non-cumulative)	Year 1						Year 5				
	Funding Source					Subtotal E&G and C&G	Funding Source				Subtotal E&G and C&G
	Reallocated Base* (E&G)	Enrollment Growth (E&G)	Other New Recurring (E&G)	New Non-Recurring (E&G)	Contracts & Grants (C&G)		Continuing Base** (E&G)	New Enrollment Growth (E&G)	Other*** (E&G)	Contracts & Grants (C&G)	
Faculty Salaries and Benefits	242,247	0	0	0	0	\$242,247	266,472	0	0	0	\$266,472
TEAMS Salaries and Benefits	0	0	0	0	0	\$0	0	0	0	0	\$0
USPS Salaries and Benefits	3,000	0	0	0	0	\$3,000	3,300	0	0	0	\$3,300
Other Personnel Services	0	0	0	0	0	\$0	0	0	0	0	\$0
Assistantships & Fellowships	117,000	0	0	0	132,000	\$249,000	146,250	0	0	264,000	\$410,250
Library	0	0	0	0	0	\$0	0	0	0	0	\$0
Expenses	0	0	0	0	0	\$0	0	0	0	0	\$0
Operating Capital Outlay	0	0	0	0	0	\$0	0	0	0	0	\$0
Special Categories	0	0	0	0	0	\$0	0	0	0	0	\$0
<b>Total Costs</b>	<b>\$362,247</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$132,000</b>	<b>\$494,247</b>	<b>\$416,022</b>	<b>\$0</b>	<b>\$0</b>	<b>\$264,000</b>	<b>\$680,022</b>

\*Identify reallocation sources in Table 3.

\*\*Includes recurring E&G funded costs ("reallocated base," "enrollment growth," and "other new recurring") from Years 1-4 that continue into Year 5.

\*\*\*Identify if non-recurring.

**Faculty and Staff Summary**

Total Positions (person-years)	Year 1	Year 5
Faculty	1.35	1.45
Teams	0.1	0.1
USPS	0	0

**Calculated Cost per Student FTE**

	Year 1	Year 5
Total E&G Funding	\$362,247	\$416,022
Annual Student FTE	11.25	18
E&G Cost per FTE	\$32,200	\$23,112





**TABLE 4  
ANTICIPATED FACULTY PARTICIPATION**

<b>Faculty Code</b>	<b>Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality</b>	<b>Rank</b>	<b>Contract Status</b>	<b>Initial Date for Participation in Program</b>	<b>Mos. Contract Year 1</b>	<b>FTE Year 1</b>	<b>% Effort for Prg. Year 1</b>	<b>PY Year 1</b>	<b>Mos. Contract Year 5</b>	<b>FTE Year 5</b>	<b>% Effort for Prg. Year 5</b>	<b>PY Year 5</b>
A	Adesogan, Adegbola Animal Nutrition	Assoc. Prof.	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Badinga, Lokenga Animal Nutrition	Assoc. Prof.	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Bailey, Lynn Human Nutrition	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Bobroff, Linda Nutrition Education	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Borum, Peggy Biochemistry & Metabolism	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Clare-Salzer, Michael Diabetes/Pathology	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Cousins, Robert Nutrition/Biochemistry	Professor & Em. Scholar	Tenure	2009	12	1.00	10.00	0.10	12	1.00	10.00	0.10
A	Dahl, Wendy Human Nutrition	Assoc. Prof.	Untenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Frost, Susan Biochemistry /Molec. Biology	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Gregory, Jesse Nutritional Biochemistry	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.10
A	Hill, Richard Veterinary Nutrition	Assoc. Prof.	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Kauwell, Gail Human Nutrition	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Kilberg, Michael Biochemistry /Molec. Biology	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Knutson, Mitchell Nutritional Biochemistry	Asst. Prof.	Untenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.10

A	Langkamp-Henken, Bobbi Human Nutrition	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Leeuwenburgh, Christiaan Aging Physiology	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Mathews, Clayton E. Diabetes/Pathology	Assoc. Prof.	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Neu, Josef Pediatric Nutrition	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Novak, Donald Pediatric Gastroenterology	Chief & Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Percival, Susan Human Nutrition	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Perri, Michael G. Obesity/Public Health	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Rowland, Neil E. Psychology/Food Intake	Professor	Tenure	2009	9	0.75	5.00	0.05	9	0.75	5.00	0.05
A	Samuelson, Don Veterinary Nutrition	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Shay, Neil Nutritional Biochemistry	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Sitren, Harry Human Nutrition	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
A	Stacpoole, Peter Clinical Nutrition	Professor	Tenure	2009	12	1.00	5.00	0.05	12	1.00	5.00	0.05
	<b>Total Person-Years (PY)</b>							<b>1.35</b>				<b>1.45</b>

Faculty Code	Source of Funding	PY Workload by Budget Classification			
		Year 1	Year 5		
A	Existing faculty on a regular line	Current Education & General Revenue	1.35	1.35	
B	New faculty to be hired on a vacant line	Current Education & General Revenue	0.00	0.00	
C	New faculty to be hired on a new line	New Education & General Revenue	0.00	0.10	
D	Existing faculty hired on contracts/grants	Contracts/Grants	0.00	0.00	
E	New faculty to be hired on contracts/grants	Contracts/Grants	0.00	0.00	
<b>Overall Totals for</b>		<b>Year 1</b>	<b>1.35</b>	<b>Year 5</b>	<b>1.45</b>