

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

ACADEMIC SENATE

ACADEMIC PROGRAMS COMMITTEE

REPORT TO

THE ACADEMIC SENATE

AP-015-178

Program Review – Human Nutrition and Food Science Department – Nutrition Science Option

Academic Programs Committee

Date: 05/16/2018

Executive Committee
Received and Forwarded

Date: 05/23/2018

Academic Senate

Date: 07/11/2018
First Reading
09/12/2018
Second Reading

BACKGROUND:

As part of the university's five-year planning cycle for all programs, a self-study was prepared by the department of Human Nutrition and Food Sciences (HNFS). An external review team, consisting of Dr. Peter Pribis from University of New Mexico and Dr. Long Wang from Cal State Long Beach, visited the HNFS Department on May 4, 2017. After their visit, a report was prepared and submitted by the external reviewers, after which both the department and Dean prepared responses. The AP Committee has reviewed these responses.

RESOURCES CONSULTED:

Dr. Harmit Singh, Chair of the HNFS Department

Dr. Lisa Kessler, Interim Dean of the College of Agriculture

Dr. Peter Kilduff, Interim Associate Dean of the College of Agriculture

DISCUSSION and RECOMMENDATION:

The external reviewers were overall positive in their appraisal of the department's faculty and programs. They noted that the department has managed to grow enrollments at a time when peer programs at other CSU campuses have seen declining enrollments. They also praised the intense efforts put into student advising, and the strong efforts in and support for faculty professional development and scholarship. The reviewers noted that such a high-quality department has natural opportunities for collaboration, both with other programs on campus (in areas of scholarly overlap) and with R1 schools (particularly with the placement of the department's diverse students into graduate programs).

The reviewers did not note any particular concerns about the department, except to note that it is under-staffed and needs more tenure-track faculty. This is a common issue for departments across campus, and it is significant that reviewers from peer programs concur with the need for more tenure-track hiring. The reviewers also noted the need for advising staff, as well as additional technical staff. The presence of advising staff would also help the department implement the reviewers' recommendation of more careful enforcement of class prerequisites. Additionally, while urging the provision of more resources (via hires) to the department from the university, the reviewers also encouraged the department to consider increasing their GE offerings to the campus, thereby bringing in resources via enrollments.

The department and Dean's office were generally in broad agreement with the reviewers' comments and suggestions. The Dean's Office indicated willingness to work with the department on exploring suggestions that require resources. Overall, the review is positive, pointing to a department with sound fundamentals and strong commitment to working with students. The chief concerns (need for more staff and tenure track faculty) are shared by all programs on campus, and merit university-level attention. The Academic Programs Committee commends the Department of Human Nutrition and Food Science on their work, both in the operation of their programs and in the preparation of a thorough and thoughtful review that highlights important issues.

Nutrition Science Review: Self-Study

Section 1. Introduction

Introduction

a) Program Description

Nutritional Science is a sub-plan under the Foods and Nutrition Major within the Human Nutrition and Food Science Department that integrates the core nutrition science courses with additional courses in the laboratory and health sciences. The mission of the Nutrition Science sub-plan is to provide several emphases that: 1) prepares students for a program of study necessary to enter medical, dental, veterinary, Pharm D Schools and Graduate programs for the Master of Science, and doctorates (Pre-professional and Animal Nutrition Emphases), and 2) prepares students for careers in various nutrition or health fields (Nutrition and Health Emphasis). The Nutrition Science Program will promote an appreciation for the multidiscipline nature of modern nutrition research. The program prepares students with a sound scientific understanding of complex nutrition issues related to research, medicine and health

b) Mission and Goals and relationship to College and University

University Mission:

Cal Poly Pomona's mission is to advance learning and knowledge by linking theory and practice in all disciplines, and to prepare students for lifelong learning, leadership and careers in a changing multicultural world.

University Goals and Learning Outcomes

Through participating in curricular and co-curricular learning opportunities, the graduates of California State Polytechnic University, Pomona, will develop competencies to become:

Practitioners: Equipped with a foundation for growth and professional success
communication skills - using verbal, written, visual and listening skills to communicate persuasively and coherently
interpersonal skills - demonstrating teamwork and leadership skills to achieve common goals
disciplinary learning - applying, integrating, and adapting fundamental information, concepts, theories and methods in their principal disciplines

Integrative Thinkers: Able to apply their knowledge and skills to future challenges and opportunities

critical thinking - thinking clearly and logically to evaluate ideas, analyze and interpret information, and draw inferences through reasoning

problem solving - identifying, formulating, investigating, and solving quantitative and qualitative problems effectively and creatively

information literacy - locating, assessing, using and communicating qualitative, quantitative and scientific information, among a wide variety of sources, methods, and tools

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

integrating and transferring learning - making connections across disciplines and between current and new knowledge, and applying that knowledge in professional and community life

Model Leaders: Taking an active role as a citizen in a diverse multicultural environment
ethical understanding - applying ethical considerations in professional, personal and social life

liberal learning - demonstrating knowledge and appreciation of the physical and natural world, and of the development and legacies of diverse world cultures

global citizenship - understanding the responsibilities of being a global citizen and the role of civic engagement in fostering a democratic society

intentional learning - employing self-knowledge of the social and cognitive factors influencing their learning to engage in ongoing reflection and exploration for the purpose of personal development

lifelong learning - pursuing educational interests from previous learning outside classroom requirements indicating intellectual curiosity, energy, and passion in the expansion of knowledge, understanding, and abilities.

Don B. Huntley College of Agriculture Mission

The Cal Poly Pomona College of Agriculture will be a prestigious center of knowledge known for premier graduates and innovative agricultural, food and apparel solutions.

Don B. Huntley College of Agriculture Goals

1. Prepare graduates to become innovators and leaders in their fields
 - a. Integrate all disciplines necessary to move agriculture education forward
 - b. Set our graduates on a pathway to success and value to society
2. Engage with our external community
 - Maintain current relationships with stakeholders
 - Connect culture to science—reconnect people to their food and fiber systems
3. Enhance existing and build new agriculture, food and apparel knowledge systems
 - Evaluate and enhance urban agriculture systems
 - Create new knowledge which is geographic and culturally specific to our SoCal region
4. Ensure human and physical resources to support our mission and goals
 - Nurture our resources through innovative and entrepreneurial approaches
 - Develop and maintain outstanding and diverse faculty and staff
 - Protect our physical resources—particularly our agricultural land—so we can offer a comprehensive education for future generations of CoA students

Don B. Huntley College of Agriculture (College) Objectives:

- 1.a. Integrate all disciplines necessary to move agriculture education forward
- 1.b. Set our graduates on a pathway to success and value to society
 1. Maintain current relationships with stakeholders
 2. Connect culture to science—reconnect people to their food and fiber systems
 3. Evaluate and enhance urban agriculture systems.
 4. Creating new knowledge which is geographic and culturally specific to our SoCal region
 5. Nurture our resources through innovative and entrepreneurial approaches with an eye to protecting our agricultural land from further development

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

6. Develop and maintain outstanding and diverse faculty and staff

The Human Nutrition and Food Science Department (Department) Mission Statement

We are dedicated to supporting a creative and innovative environment to prepare baccalaureate and post-baccalaureate students through a learn-by-doing approach for careers in the health and food science professions to benefit society.

Department Goals

1. Outstanding and diverse faculty and staff committed to the department core values
2. Students are prepared for entry levels careers and post-graduate programs
3. Develop partnerships with other disciplines
4. Engagement with external community
5. Human and physical resources to support our mission and goals

Food and Nutrition Mission Statements (Major)

The Food and Nutrition Major (FN) is based on the Food and Nutrition Board (FNB) of the Institute of Medicine of the National Academy of Sciences. The FNB is a multidisciplinary group of biomedical scientists with expertise in various aspects of nutrition, food science, biochemistry, medicine, public health, epidemiology, food toxicology and food safety. The FN major trains students for careers pertaining to the diverse issues of food, nutrition and health. With the quickening pace of technological changes in our food supply and increasing understanding of how food affects our health, it is imperative that FN majors examine and evaluate the complex interrelationships of food, food safety and nutrition issues of central importance to health and policy. FN envisions its students to be in an excellent position to examine and provide guidance on issues of food and health today and into the future.

Food and Nutrition Program Goals

1. The program prepares graduates for entry-level nutrition careers and/or admittance to nutrition related postgraduate training programs.
2. The program will prepare students (dietetic option only) who meet the Didactic components defined by the Accreditation Council for Education in Nutrition and Dietetics.
3. The program will produce graduates with the knowledge and skill base to be successful professionals in the food and nutrition field.

Goal Outcome Measures

Section 1: Scientific and Evidence Base of Practice: integration of scientific information and research into practice

- 1.1 Students demonstrate how to locate, interpret, evaluate and use professional literature.
- 1.2 Students use current information technologies.

Section 2: Professional Practice Expectations: beliefs, values, attitudes and behaviors for the professional dietitian level of practice

- 2.1 Students demonstrate effective professional oral and written communication.
- 2.2 Students are able to demonstrate assertiveness, advocacy and negotiation skills.
- 2.3 Students are able to demonstrate counseling techniques.

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

2.4 Students are able to locate, understand and apply established guidelines.

2.5 Students are able to identify and describe the roles of others.

Section 3: Clinical and Customer Services: development and delivery of information, products and services to individuals, groups and populations

3.1 Students use the nutrition care process to make decisions.

3.2 Students apply knowledge of the role of environment, food and lifestyle choices.

3.3 Students develop an educational session or program/educational strategy for target populations.

Section 4: Practice Management and Use of Resources: strategic application of principles of management and systems in the provision of services to individuals and organizations

4.1 Students apply management and business theories and principles.

4.2 Students determine costs of services or operations.

4.3 Students apply the principles of human resource management to different situations.

4.4 Students apply safety principles.

4.5 Students develop outcome measures, use informatics principles and technology to collect and analyze data. Students explain the impact of a public policy on dietetics practice. Students explain the impact of health care policy, administration, different health care delivery systems and current reimbursement policies.

Section 5: The food and food systems foundation of the dietetics profession must be evident in the curriculum.

5.1 Students are able to identify the types of foodservice operations in existence.

5.2 Students are able to identify the interrelated parts that make up a foodservice system.

5.3 Students will understand the techniques of food preparation and application to the development, modification and evaluation of recipes and menus.

5.4 Students will demonstrate knowledge of techniques of food preparation and application to the development, modification and evaluation of recipes and menus.

5.5 Students will demonstrate knowledge of standards of purchasing of food.

Section 6: The physical and biological science foundation of the dietetics profession must be evident in the curriculum.

6.1 Describe the mechanism of action of essential nutrients in health promotion and disease prevention.

6.2 Describe the mechanism of action of bioactive non-nutrients in health promotion and disease prevention.

6.3 Determine nutrient needs across the lifespan.

6.4 Integrate knowledge of the use of nutrients at the molecular, cellular and organ level.

6.5 Integrate genetic, physiologic and biochemical mechanisms by which food and nutrients promote optimal health.

6.6 Understand and demonstrate the scientific method and the application of research methodologies.

6.7 Interpret basic statistics used in nutrition and medical research.

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

For the new semester conversion plan, designed in 2015-2016, the Nutrition Science faculty composed a mission statement directly related to and separate from the Dietetics Option Mission Statement (which is the same for the Major). Previously, the Mission Statement for NS and Dietetics (see above) were the same. After the Accreditation Council for Education in Nutrition and Dietetics (ACEND) site visit for the Dietetics Didactic Program and Dietetic Internships, the ACEND reviewers determined that Dietetics should have a standalone Mission and Program Goals.

Mission Statement Semester Conversion for Nutrition Science Option: To provide a high-quality education that educates and prepares our diverse students so that they can promote healthy nutrition and food practices that enhance human and animal health through teaching, research, classes and opportunities that support the Human Nutrition and Food Science, College of Agriculture and Cal Poly Pomona missions.

Semester Conversion for Nutrition Science Option Program Goals:

Goal 1: Prepare competent graduates capable of successful entry into graduate programs (Pre-professional and Animal Nutrition emphases)

Goal 2: Prepare graduates for entry into food and nutrition-related careers

Goal 3: Recruit, retain and graduate a diverse population of undergraduate nutrition science students with the social and cultural understanding required to help promote healthy nutrition and food practices.

Semester Conversion for Nutrition Science Option Program Objectives:

In order to secure and maintain accreditation for the Didactic Programs in Dietetics program, these Nutrition Science Option Student Learning Objectives will not include the food service and medically-related competencies (Foodservice/Medical Nutrition Therapy) per the requirements for Accreditation Council for Education in Nutrition and Dietetics (ACEND) requirements, and as a result of the reviewer's suggestion during the 2012 accreditation site visit.

Section 1: Scientific and Evidence Base of Practice: integration of scientific information and research into practice

- 1.1 Students demonstrate how to locate, interpret, evaluate and use professional literature.
- 1.2 Students use current information technologies.

Section 2: Professional Practice Expectations: beliefs, values, attitudes and behaviors for the nutrition professional

- 2.1 Students demonstrate effective professional oral and written communication.
- 2.2 Students are able to demonstrate assertiveness, advocacy and negotiation skills.
- 2.3 Students are able to demonstrate counseling techniques.
- 2.4 Students are able to locate, understand and apply established guidelines.
- 2.5 Students are able to identify and describe the roles of others.

Section 3: The physical and biological science foundation of the nutrition profession must be evident in the curriculum.

- 6.1 Describe the mechanism of action of essential nutrients in health promotion and disease prevention.
- 6.2 Describe the mechanism of action of bioactive non-nutrients in health promotion and disease prevention.
- 6.3 Determine nutrient needs across the lifespan.
- 6.4 Integrate knowledge of the use of nutrients at the molecular, cellular and organ level.
- 6.5 Integrate genetic, physiologic and biochemical mechanisms by which food and nutrients promote optimal health.
- 6.6 Understand and demonstrate the scientific method and the application of research methodologies.
- 6.7 Interpret basic statistics used in nutrition and medical research.

Comparison of the Missions, Goals and Objectives of the University, College, Major, and Option

The Food and Nutrition Major and therefore both the Dietetics and Nutrition Science (NS) option Mission Statements and Goals align with both the University and College statements. As mentioned previously, the Goals and Objectives are based on accreditation standards for the Dietetics program that are set and changed every 5 years. The Didactic Program in Dietetics came up with the student learning objectives associated with these program objectives that are unique to each class taught in the department. We have supplied the curriculum map for the nutrition classes taught in our department in section 2 of this report.

The University Mission “advance learning and knowledge by linking theory and practice in all disciplines, and to prepare students for lifelong learning, leadership and careers in a changing multicultural world”, is very similar to the NS program semester conversion Program Mission Statement, “To provide a high quality education that educates and prepares our diverse students so that they can promote healthy nutrition and food practices that enhance human and animal health through teaching, research, classes and opportunities that support the Human Nutrition and Food Science, College of Agriculture and Cal Poly Pomona missions”. The NS option will prepare students for lifelong learning, leadership and careers, by stating that our students will already have those skills and are prepared to teach or share with others. NS values our multicultural student body, and encourages our students to go back into their diverse communities and provide healthcare and healthy food practices in those communities. The College of Agriculture’s Mission and Objectives, the College of Agriculture Mission Statement focuses more on the branding of the college and aligns with the University mission of “careers” and utilizes the words “known for premier graduates and innovative agricultural, food and apparel solutions”. The NS option Mission, “promote healthy nutrition and food practices that enhance human and animal health through teaching, research, classes and opportunities that support the Human Nutrition and Food Science, College of Agriculture and Cal Poly Pomona missions”, also supports the careers of students in formulation of unique, personalized as well as public health solutions. Please see **Table 1.1** for comparisons.

Table 1.1. Wording Comparison of the Mission Statement of the University to the College of Agriculture, and the NS Option

		Similar Word Use in the College and NS Program ¹					
Mission Statements	Advance learning	Advance knowledge	Linking theory and practice	Prepare for lifelong learning	Prepare students for leadership	Prepare students for Careers	Multi-cultural world
University	N/A ¹	N/A	N/A	N/A	N/A	N/A	N/A
Cal Poly Pomona's mission is to advance learning and knowledge by linking theory and practice in all disciplines, and to prepare students for lifelong learning, leadership and careers in a changing multicultural world.							
The Cal Poly Pomona College of Agriculture will be a prestigious center of knowledge known for premier graduates and innovative agricultural, food and apparel solutions.		X ² "center of knowledge"	X Innovative" and "solutions"		X "premier graduates"	X "innovative agricultural, food and apparel solutions"	
To provide a high-quality education that educates and prepares our diverse students so that they can promote healthy nutrition and food practices that enhance human and animal health through teaching, research, classes and opportunities that support the Human Nutrition and Food Science, College of Agriculture and Cal Poly Pomona missions" Truncated to: "support college and CPP missions"	X "through classes" & "...support the Human Nutrition and Food Science, College of Agriculture and Cal Poly Pomona missions" & Truncated to: "support college and CPP missions"	X "educates and prepares" & "support college and CPP missions"	X "so, they can promote healthy nutrition and food practices that enhances human ...health" & "support college and CPP missions"	X Enhances human... health through teaching, research, and opportunities"	X "teaching" and "opportunities" & "support college and CPP missions"	X "promote healthy nutrition and food practices that enhance human and animal health through teaching, research" & "support college and CPP missions"	X "our diverse students" & "support college and CPP missions"

¹"N/A" is not applicable since we are comparing the College of Agriculture and NS Option statements to the University
²"X" indicates use of the word in the mission statement

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

In general, the University goals are: "Through participating in curricular and co-curricular learning opportunities, the graduates of California State Polytechnic University, Pomona, will develop competencies to become: Practitioners, Integrative Thinkers and Model Leaders. The objectives are more specific to the goals, but broad enough that it can encompass all disciplines. As shown in **Table 1.2 (please see next page)**, both the Don B. Huntley College of Agriculture and the Nutrition Science Option meets the Goals of the University.

Table 1.2: Comparison of the University Goals to the Goals of the Don B. Huntley College of Agriculture and the NS Option

Program	Goal Statements	Practitioners	Integrative Thinkers	Model Leaders
University	Through participating in curricular and co-curricular learning opportunities, the graduates of California State Polytechnic University, Pomona, will develop competencies to become: Practitioners, Integrative Thinkers and Model Leaders.	N/A	N/A	N/A
College of Agriculture	<ol style="list-style-type: none"> 1. Prepare graduates to become innovators and leaders in their fields 2. Engage with our external community 3. Enhance existing and build new agriculture, food and apparel knowledge systems 4. Ensure human and physical resources to support our mission and goals 	<p>“Create new knowledge which is geographic and culturally specific to our SoCal region”</p>	<p>“Enhance existing and build new agriculture, food and apparel knowledge systems” & “Create new knowledge which is geographic and culturally specific to our SoCal region”</p>	<p>“Prepare graduates to become innovators and leaders in their fields”</p>
NS Option	<ol style="list-style-type: none"> 1. Prepare competent graduates capable of successful entry into graduate programs (Pre-professional and Animal Nutrition emphases) 2. Prepare graduates for entry into food and nutrition-related careers 3. Recruit, retain and graduate a diverse population of undergraduate nutrition science students with the social and cultural understanding required to help promote healthy nutrition and food practices. 	<p>“Prepare competent graduates capable of successful entry into graduate programs (Pre-professional and Animal Nutrition emphases)” & “Prepare graduates for entry into food and nutrition-related careers” & “Recruit, retain and graduate a diverse population of undergraduate nutrition science students with the social and cultural understanding required to help promote healthy nutrition and food practices”.</p>	<p>“Prepare competent graduates capable of successful entry into graduate programs (Pre-professional and Animal Nutrition emphases)”</p>	<p>“Prepare competent graduates capable of successful entry into graduate programs (Pre-professional and Animal Nutrition emphases)” & Recruit, retain and graduate a diverse population of undergraduate nutrition science students with the social and cultural understanding required to help promote healthy nutrition and food practices.</p>

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

The comparison of the University, College and Program (Option) objectives was challenging, since objectives should directly relate to the goal subject matter and be measurable using student learning objectives at the program level. We have arranged the data to conform to the previous tables in a similar format.

Please see **Table 1.3** (on the next page) for comparisons.

The Don B. Huntley College of Agriculture (College) lacked information for “Literacy,” “Global citizenship”, “Intentional learning”, and “Lifelong learning.”

Summary:

There was only one area that was lacking in the NS Option comparison to the University Objectives and that was “Global citizenship”. This can easily be incorporated into the new semester curriculum as an objective under **Section 2-: Professional Practice Expectations: beliefs, values, attitudes and behaviors for the nutrition professional.**

All other objectives were comparable.

Table 1.3. Comparison of the Objectives of the University with the College and NS Program

Program	Objectives (as written)	Communication skills;	Critical Thinking; Problem Solving;	Ethical understanding; Liberal learning; Global citizenship;
		Interpersonal skills; Disciplinary learning;	Information literacy; Integrating and transferring learning	Intentional learning; Lifelong learning
University	<p><i>Communication skills</i> - using verbal, written, visual and listening skills to communicate persuasively and coherently</p> <p><i>Interpersonal skills</i> - demonstrating teamwork and leadership skills to achieve common goals</p> <p><i>Disciplinary learning</i> - applying, integrating, and adapting fundamental information, concepts, theories and methods in their principal disciplines</p> <p>& <i>Critical thinking</i> - thinking clearly and logically to evaluate ideas, analyze and interpret information, and draw inferences through reasoning</p> <p><i>Problem solving</i> - identifying, formulating, investigating, and solving quantitative and qualitative problems effectively and creatively</p> <p><i>Information literacy</i> - locating, assessing, using and communicating qualitative, quantitative and scientific information, among a wide variety of sources, methods, and tools</p> <p><i>Integrating and Transferring learning</i> - making connections across disciplines and between current and new knowledge, and applying that knowledge in professional and community life & <i>Ethical understanding</i> - applying ethical considerations in professional, personal and social life</p> <p><i>Liberal learning</i> - demonstrating knowledge and appreciation of the physical and natural world, and of the development and legacies of diverse world cultures</p> <p><i>Global citizenship</i> - understanding the responsibilities of being a global citizen and the role of civic engagement in fostering a democratic society</p> <p><i>Intentional learning</i> - employing self-knowledge of the social and cognitive factors influencing their learning to engage in ongoing reflection and exploration for the purpose of personal development</p> <p><i>Lifelong learning</i> - pursuing educational interests from previous learning outside classroom requirements indicating intellectual curiosity, energy, and passion in the expansion of knowledge, understanding, and abilities.</p>	<p>Communication- N/A</p> <p>Interpersonal-N/A</p> <p>Disciplinary-N/A</p>	<p>Critical Thinking-N/A</p> <p>Problem solving-N/A</p> <p>Information Literacy- N/A</p> <p>Integrating and transferring learning- N/A</p>	<p>Ethical understanding-N/A</p> <p>Liberal learning-N/A</p> <p>Global citizenship-N/A</p> <p>Intentional learning- N/A</p> <p>Lifelong learning-N/A</p>

Department of Human Nutrition and Food Science
 Nutrition Science Review AY 2016-2017

Program	Objectives (as written)	Communication skills; Interpersonal skills; Disciplinary learning;	Critical Thinking; Problem Solving; Information literacy; Integrating and transferring learning	Ethical understanding; Liberal learning; Global citizenship; Intentional learning; Lifelong learning
College	1.a. Integrate all disciplines necessary to move agriculture education forward 1.b. Set our graduates on a pathway to success and value to society 2. Maintain current relationships with stakeholders 3. Connect culture to science—reconnect people to their food and fiber systems 4. Evaluate and enhance urban agriculture systems. 5. Creating new knowledge which is geographic and culturally specific to our SoCal region 6. Nurture our resources through innovative and entrepreneurial approaches with an eye to protecting our agricultural land from further development 7. Develop and maintain outstanding and diverse faculty and staff	Communication- Not listed Interpersonal- Maintain current relationships with stakeholders Disciplinary- Connect culture to science—reconnect people to their food and fiber systems Evaluate and enhance urban agriculture systems. Creating new knowledge which is geographic and culturally specific to our SoCal region Develop and maintain outstanding and diverse faculty and staff	Critical Thinking- Creating new knowledge which is geographic and culturally specific to our SoCal region Problem solving- Evaluate and enhance urban agriculture systems. Information Literacy- Not listed Integrating and transferring learning- Creating new knowledge which is geographic and culturally specific to our SoCal region	Ethical understanding- Creating new knowledge which is geographic and culturally specific to our SoCal region Liberal learning- Integrate all disciplines necessary to move agriculture education forward Global citizenship- Not listed Intentional learning- Not listed Lifelong learning- Not listed

Department of Human Nutrition and Food Science
 Nutrition Science Review AY 2016-2017

Program

Objectives (as written)

**Communication skills;
 Interpersonal skills;
 Disciplinary learning;**

**Critical Thinking;
 Problem Solving;
 Information literacy;
 Integrating and
 transferring learning**

**Ethical understanding;
 Liberal learning; Global
 citizenship; Intentional
 learning; Lifelong learning**

**NS
 Program**

**Section 1: Scientific and Evidence Base of Practice:
 integration of scientific information and research into
 practice**
 1.1 Students demonstrate how to locate, interpret,
 evaluate and use professional literature.
 1.2 Students use current information technologies.
**Section 2: Professional Practice Expectations: beliefs,
 values, attitudes and behaviors for the nutrition
 professional**
 2.1 Students demonstrate effective professional oral
 and written communication.
 2.2 Students are able to demonstrate assertiveness,
 advocacy and negotiation skills.
 2.3 Students are able to demonstrate counseling
 techniques.
 2.4 Students are able to locate, understand and apply
 established guidelines.
 2.5 Students are able to identify and describe the roles
 of others.
**Section 3: The physical and biological science
 foundation of the nutrition profession must be
 evident in the curriculum.**
 6.1 Describe the mechanism of action of essential
 nutrients in health promotion and disease prevention.
 6.2 Describe the mechanism of action of bioactive non-
 nutrients in health promotion and disease prevention.
 6.3 Determine nutrient needs across the lifespan.
 6.4 Integrate knowledge of the use of nutrients at the
 molecular, cellular and organ level.
 6.5 Integrate genetic, physiologic and biochemical
 mechanisms by which food and nutrients promote
 optimal health.
 6.6 Understand and demonstrate the scientific method
 and the application of research methodologies.
 6.7 Interpret basic statistics used in nutrition and
 medical research.

Communication-
 Students demonstrate how
 to locate, interpret,
 evaluate and use
 professional literature.
 Students demonstrate
 effective professional oral
 and written
 communication. Students
 are able to demonstrate
 assertiveness, advocacy
 and negotiation skills.
 Students are able to
 identify and describe the
 roles of others.
Interpersonal- Students are
 able to demonstrate
 counseling techniques.
 Students are able to
 identify and describe the
 roles of others. Determine
 nutrient needs across the
 lifespan.
Disciplinary- Describe the
 mechanism of action of
 essential nutrients in
 health promotion and
 disease prevention.
 Describe the mechanism of
 action of bioactive non-
 nutrients in health
 promotion and disease
 prevention. Determine

Ethical understanding-
 Students are able to
 demonstrate counseling
 techniques. (which requires
 training in cultural competencies,
 which 2 classes cover in our
 curriculum.
 Liberal learning-
**Section 3 addresses this: The
 physical and biological science
 foundation of the nutrition
 profession must be evident in
 the curriculum.**
 Describe the mechanism of
 action of essential nutrients in
 health promotion and disease
 prevention.
 Describe the mechanism of
 action of bioactive non-nutrients
 in health promotion and disease
 prevention.
 Determine nutrient needs across
 the lifespan.
 Integrate knowledge of the use
 of nutrients at the molecular,
 cellular and organ level.
 Integrate genetic, physiologic
 and biochemical mechanisms by
 which food and nutrients
 promote optimal health.
 Understand and demonstrate the
 scientific method and the
 application of research
 methodologies.

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

Program	Objectives (as written)	Communication skills; Interpersonal skills; Disciplinary learning;	Critical Thinking; Problem Solving; Information literacy; Integrating and transferring learning	Ethical understanding; Liberal learning; Global citizenship; Intentional learning; Lifelong learning
NS Program (continued)	nutrient needs across the lifespan. Integrate genetic, physiologic and biochemical mechanisms by which food and nutrients promote optimal health. Understand and demonstrate the scientific method and the application of research methodologies.	effective professional oral and written communication. Students are able to demonstrate assertiveness, advocacy and negotiation skills. Students are able to identify and describe the roles of others. Integrating and transferring learning- Section 1 addresses this: Scientific and Evidence Base of Practice: integration of scientific information and research into practice	Interpret basic statistics used in nutrition and medical research. Global citizenship-Not addressed Intentional learning- Students demonstrate how to locate, interpret, evaluate and use professional literature. Students demonstrate effective professional oral and written communication. Students are able to demonstrate assertiveness, advocacy and negotiation skills. Students are able to identify and describe the roles of others. Lifelong learning- Section 1 and 2 addresses this: Scientific and Evidence Base of Practice: integration of scientific information and research into practice Section 2: Professional Practice Expectations: beliefs, values, attitudes and behaviors for the nutrition professional	

c) Review of previous self-study, recommendations, and changes

Previous Self-Study (2008)

There has been no previous study of the Nutrition Science (NS) option as its own entity. The NS option assessment was included with the Dietetic Program reviews. In 2008, Dietetics and Nutrition Science shared major core courses in nutrition science: Nutrition, Introduction to Research Methods, Nutrition of the Life Cycle, Advanced Nutrient Metabolism I, II and III and Medical Nutrition Therapy. For the first time in 2008, the department posted the assessment materials on the website: <http://www.csupomona.edu/~hnfs/ProgramAssessment.shtml> (now a dead link) listing Program and Student Learning Objectives as well as the Course Matrix for all courses. It was at this time that the assessment for the major was implemented.

In 2012, a program review and site visit was conducted by Accreditation Council for Education in Nutrition and Dietetics (ACEND) for the Dietetic Program, of which all but three classes taught as part of the Nutrition Science option: FN/FST classes, FN 203, FN 305 and FN 228 were evaluated for compliance to accreditation standards. Dr. Lisa Kessler as Didactic Programs in Dietetics (DPD) Director, led the 3-day program evaluation with members from ACEND. Dr. Lisa Kessler implemented the suggestions from ACEND, and then shortly thereafter, became interim Associate Dean in the College of Agriculture. Dr. Bonny Burns-Whitmore, the DPD Director at the time, received the verification that the HNFS Department and the DPD Program were approved for continued accreditation by ACEND and the documentation is on file with the present DPD Director, Dr. Golandam Khayef, RD.

A program review for the Nutrition Science option was supposed to be conducted in 2014-2015, however, due to a very high advising load and workload for the Retention, Tenure and Promotion requirements, as well as the limited number of faculty from the loss of full-time tenure track faculty, and some personal issues on the part of the Program Lead, a request was made to the Dean's office to postpone the program review until 2016-2017. This was granted November 24, 2015, by Dr. Lisa Kessler, Associate Dean. Another request was made to postpone the program evaluation to 2019, which would be after the semester conversion, and after the reorganization of the Food and Nutrition classes for the upcoming change to the new deadline of June 2017 ACEND standards, and semester conversion revisions, but this request was denied. Therefore, it is possible that some of the areas of this report as it pertains to the Food and Nutrition major (Nutrition major in semesters) goals, student learning objectives, and course maps will likely be revised concurrently during this Nutrition Science option review in Spring Quarter 2017.

Section 2. Program Description

a) Review the units to degree.

The units to degree in the quarter system is 180, and 120 in the semester system.

b) The curriculum (core, directed electives, minors, emphasis area). Updated expanded course outlines (no more than five years old) for all courses must be on file in the department office.

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

The present curriculum consists of the following: A Core, Required Subplan/option courses, Required Support classes, Electives (both unrestrictive and required 42 units of electives) and a choice of one of three Emphases, Nutrition and Health, Animal Nutrition, or Pre-Professional. These are stated as follows:

Core:

Orientation to College of Agriculture AG 100, Intro to the Profession FN 100, Nutrition & Lab FN 235/235L, Intro of Research Methods FN 263. There will be a requirement for graduation - as assessment activity ("R" Assessment)

Required Subplan/Option Courses:

Intro to Foods & Lab FN 121/L, Nutrition of the Life Cycle FN 335, Nutrition Education & Lab FN 345/L, Intro to Food Science & Technology FST 125, Experimental Food Science & Lab FST 321/L, Food Safety and Current Issues FST 325

Required Support:

Human Physiology & Lab BIO 235/L, General Chemistry & Lab CHM 122/L, General Chemistry & Lab CHM 123/L, Elements of Organic Chemistry & Lab CHM 201/250 or Elements of Organic Chemistry & Lab CHM 314/317L, Trigonometry MAT 106, Calculus for the Life Sciences MAT 120, Basic Microbiology & Lab MIC 201/L, College Physics & Lab PHY 121/L, Agriculture and the Modern World AG 101 (D2), Ethical Issues in Food, Agricultural, and Apparel Industries AG 401(C4 or D4), Basic Biology BIO 115/L/A (B2, B3) or Foundations of Biology: Energy and Matter Cycles and Flows & Lab BIO 121/L(B2, B3) General Chemistry & Lab CHM 121/L (B1, B3), Freshman English II ENG 105 (A3), Stretch Composition III ENG 107(A2) or Advanced Stretch Composition II ENG 109 (A2), or First-Year Composition ENG 110 (A2), General

Unrestrictive Elective: 0-1

Electives Subplan/Option:

Select 42 units from only one emphasis areas in consultation with advisor: 1) Nutrition and Health 2) Pre-Professional 3) Animal Nutrition

Nutrition and Health Emphasis:

Drugs and Society AVS 211, Biology of Cancer BIO 302, Biology of the Brain BIO 309, Sexually Transmitted Diseases: Current Issues BIO 311, Biology of Human Aging BIO 328, Intercultural Communication Health COM 327, Nutrition & the Integrated Being FN 203, Food and Culture FN 228, Nutrition Activity FN 235A, Special Study for Upper Division Students FN 400, Internship in Foods and Nutrition FN 441, Internship in Foods and Nutrition Agriculture FN 442, Nutrition and International Dvlpmt FN 445, Food Systems in Developing Nations I FST 424, Food Systems in Developing Nations II FST 425, Healthy American Cuisine Agriculture HRT 255, Nutrition & Intl Development IA 445, Foundations of Exercise Science KIN 301, Physiology of Exercise KIN 303/303L, Science of Physical Aging KIN 365, Stress Management for Healthy Living KIN 370, Consumer Health KIN 380, Physiology of Exercise II KIN 403/403L, Drug Education

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

KIN 408, Sports Medicine KIN 455, Exercise Metabolism and Weight Control KIN 456,
Multicultural Psychology PSY 325, Health Psychology PSY 326

Pre-Professional Emphasis:

Foundations of Biology: Reproduction & Dvlpmt BIO 122/122L, Foundations of
Biology: Biodiversity BIO 123/123L, Biology of Cancer BIO 302, Genetics BIO 303,
Cell and Molecular Biology BIO 310, Advanced Genetics BIO 424, Neuroscience BIO
421, Cellular Physiology BIO 428/428L, Quantitative Analysis CHM 221/221L, Organic
Chemistry & Lab CHM 315/318L, Organic Chemistry & Lab CHM 316/319L, Elements
of Biochemistry & Lab CHM 321/L or Biochemistry & Lab CHM 327/327L,
Biochemistry & Lab CHM 328/328L, Biochemistry & Lab CHM 329/329L, Clinical
Chemistry CHM 331/L, Spectroscopic Methods CHM 342/L, or Separation Methods
CHM 343/L, or Electroanalytical Methods CHM 344/L, Bioanalytical Chemistry CHM
450, Recombinant DNA Biochemistry CHM 453, Advanced Nutrient Metabolism I FN
433, Advanced Nutrient Metabolism II FN 434, Advanced Nutrient Metabolism III FN
435, Physiology of Exercise KIN 303/L, Sports Medicine KIN 455, College Physics &
Lab PHY 122/122L, College Physics & Lab PHY 123/123L

Animal Nutrition Emphasis:

Fundamentals of Animal Nutrition AVS 101, Equine Management Science AVS
125/125L, Applied Animal Feeding AVS 303/303L, Meat Science and Industry AVS
327/327L, Seafood and Poultry Processing Technology AVS 328/328A, Equine Nutrition
AVS 355, Animal Nutrition AVS 402, Ruminant Nutrition AVS 403, Nutritive Analysis
AVS 424L, Meat Processing and Technology AVS 427/427L, Foundations of Biology:
Reproduction & Dvlpmt BIO 122/122L, Foundations of Biology: Biodiversity Organic
Chemistry & Lab CHM 315/318L, Organic Chemistry & Lab CHM 316/319L, Elements
of Biochemistry & Lab CHM 321/L or Biochemistry & Lab CHM 327/327L,
Biochemistry & Lab CHM 328/328L, Biochemistry & Lab CHM 329/329L, Clinical
Chemistry CHM 331/331L, Spectroscopic Methods CHM 342/342L or Separation
Methods CHM 343/343L or Electroanalytical Methods CHM 344/344L, Bioanalytical
Chemistry CHM 450, Recombinant DNA Biochemistry CHM 453, Advanced Nutrient
Metabolism I FN 433, Advanced Nutrient Metabolism II FN 434, Advanced Nutrient
Metabolism III FN 435

Semester Conversion

The curriculum is different in semester conversion. We required classes for Animal
Nutrition and the Nutrition and Health emphasis that were important to the understanding
of the emphasis. For Animal Nutrition, we required students to take 12 units of animal-
related classes (see list) and for Nutrition and Health, we will require them to take the
NTR 4250 Introduction to Nutrient Metabolism (3 units). We were just notified that
some of the Biology classes our NS students used to take will no longer be offered, and
are crossed off. We also listed NTR 4850 Sports Nutrition (3 units) as an elective for both
the Pre-Professional and Nutrition and Health emphases. The NTR 4250 class was also
designed to address the 20% "D's, W's (withdraws) and F's (fails) rate that both the FN
433 and FN 434 classes experience (will become NTR 4330 and NTR 4340). We hope

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

that by offering this introductory course, which introduces the nutrient pathways, ultimately improve student success. Please see Table 1.4 Nutrition Science-Semester Conversion for reference.

Table 1.4 Nutrition Science-Semester Conversion

Nutrition Major- Nutrition Science Option Curriculum Sheet-11/01/15-rev 11/13/15-rev 05/04/16

SEMESTER CONVERSION

	Required Major Core	74
	Required Option Core	10
	Double-counted	(33)
	GE	48
	<u>Emphasis Electives</u>	<u>21</u>
	TOTAL DEGREE	120
	Required Major Core (MC)	SEM
AG 1010	Agriculture and Modern World (D2)(MC)	3
AG 4010	Ethical Issues (D4)(MC)	3
BIO 1150	Basic Biology (B2) or BIO 1210(MC)	3
BIO 1150L	Basic Biology Lab (B3) or BIO 1210L(MC)	1
BIO 2350	Human Physiology(MC)	3
BIO 2350L	Human Physiology Lab(MC)	1
BIO 2060	Basic Microbiology(MC)	3
BIO 2060L	Basic Microbiology Lab(MC)	1
BIO 3000	Genetics (B5) (MC)	3
CHM 1210	General Chemistry (B1) (MC)	3
CHM 1210L	General Chemistry Lab (B3) (MC)	1
CHM 1220	General Chemistry (MC)	3
CHM 1220L	General Chemistry Lab(MC)	1
CHM 2010	Elements of Organic Chemistry or CHM 3170(MC)	3
COM 2204	Advocacy and Argument (A1) (MC)	3
ENG 1103	Freshman English 1 (A2) (MC)	3
ENG 2105	Written Reasoning (A3) (MC)	3
FST 3210	Experimental Food Science(MC)	2
FST 3210L	Experimental Food Science Lab(MC)	1
FST 3250	Food Safety and Current Issues(MC)	3
NTR 1000	Intro to Professions(MC)	1
NTR 1210	Intro to Foods(MC)	2
NTR 1210L	Intro to Foods Lab(MC)	1
NTR 2280	Food and Culture (D3) (MC)	3
NTR 2350	Nutrition(MC)	3
NTR 2350L	Nutrition Lab(MC)	1

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

NTR 3130	Intro to Research(MC)	3
NTR 3350	Nutrition of the Life Cycle(MC)	3
NTR 3450	Nutrition Education and Counseling(MC)	3
NTR 3450A	Nutrition Education and Counseling Act(MC)	1
PSY 2201	Introduction to Psychology (E) (MC)	3
STA 1200	Statistics with Apps (B4) (MC)	3
Required Option Core (OC)		
MAT 1060	Trigonometry(OC)	3
MAT 1200	Calculus for the Life Sciences(OC)	3
PHY 1210	College Physics(OC)	3
PHY 1210L	College Physics Lab(OC)	1

***Emphasis Electives**

Students should select one of the three emphases:
Requires 18 units from selected emphasis

***Pre-Professional**

BIO 3020	Biology of Cancer	3
BIO 3030	Genetics	3
BIO 3100	Cell, Molecular & Developmental Biology	3
BIO 4210	Advanced Genetics BIO 421	3
BIO 4240	Neuroscience BIO 424	3
BIO 4280/L	Cellular Physiology BIO 4280/4280L	3/1
CHM 2210/L	Quantitative Analysis	3/1
CHM 3150/L	Organic Chemistry	3/1
CHM 3160/L	Organic Chemistry	3/1
CHM 3210/L	Elements of Biochemistry	3/1
CHM 3270/L	or Biochemistry/Laboratory	3/1
CHM 3280/L	Biochemistry and Lab	3/1
CHM 3310/L	Clinical Chemistry	3/1
CHM 3420/L	Spectroscopic Methods	3/1
CHM 3430/L	or Separation Methods	3/1
CHM 4500	Bio-analytical Chemistry	3
CHM 4530	Recombinant DNA Biochemistry	3
KIN 3030/L	Exercise Science	3/1
KIN 4550	Sports Medicine	3
NTR 4250	Introduction to Nutrient Metabolism	3
NTR 4330	Advanced Nutrient Metabolism I (3)	3
NTR 4340	Advanced Nutrient Metabolism II (3)	3
NTR 4370	Nutritional Genomics (requires NUTR 3930 & 3940)	3
NTR 4380	Evaluation of Complementary Medicine (req NUTR 3930 & 3940)	3
NTR 4450	Agriculture, Nutrition and International Development	3

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

NTR 4850	Sports Nutrition	3
PHY 1220/L	College Physics	3/1

***Nutrition and Health**
Required classes:

NTR 4250	Introduction to Nutrient Metabolism	3
-----	Choose 18 units from the following	--
AVS 2110	Drugs and Society	3
BIO 3020	Biology of Cancer	3
BIO 3090	Biology of the Brain	3
BIO 3110	Sexually Transmitted Diseases: Current Issues	3
BIO 3280	The Biology of Human Aging	3
COM 3270	Intercultural Communication	3
FST 4240	Food Systems in Developing Nations I	3
FST 4250	Food Systems in Developing Nations II	3
HRT 2550	Healthy American Cuisine	3
KIN 3010	Foundations of Exercise Science	3
KIN 3030/3030L	Physiology of Exercise	3/1
KIN 3650	Science of Physical Aging	3
KIN 3700	Stress Management for Healthy Living	3
KIN 3800	Consumer Health	3
KIN 4030/4030L	Physiology of Exercise	3/1
KIN 4080	Drug Education	3
KIN 4550	Sports Medicine	3
KIN 4650	Exercise Metabolism and Weight Control	3
NTR 2030	Health, Nutrition & the Integrated Being (3) if GE-cannot be used here	3
NTR 4850	Sports Nutrition	3
NTR 4410/4420	Internship in Foods and Nutrition (1-3)	1-3
NTR/IA 4450	Agriculture, Nutrition and International Health	3
PSY 3250	Multicultural Psychology	3
PSY 3260	Health Psychology	3

***Animal Nutrition**
Required classes

AVS 1010	Fundamentals of Animal Nutrition (3)	3
AVS 2010	Animal Diseases (3)	3
AVS 4730	Clinical Nutrition (3)	3
AVS 3500	Anatomy and Physiology of Domestic Animals	3
Total		12

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

Require minimum 9 units from these electives

CHM 3150/L	Organic Chemistry L (3/1)	3/1
CHM 3160/L	Organic Chemistry (3/1)	3/1
CHM 3210	Elements of Biochemistry (3)	3
CHM 3270/L	or Biochemistry/Laboratory (3/1)	3/1
CHM 3280/L	Biochemistry (3/1)	3/1
NTR 4250	Introduction to Nutrient Metabolism	3
NTR 4330	Advanced Nutrient Metabolism I (3)	3
NTR 4340	Advanced Nutrient Metabolism II (3)	3
NTR 4370	Nutritional Genomics (requires NUTR 3930&40)	3
NTR 4380	Evaluation of Complementary Medicine (req NUTR 3930&40)	3
NTR 4850	Sport Nutrition	3

Option Core = OC

Major Core = MC

GEs are named according to A, B, C, D, E designations

Emphasis Elective areas = *

Location of ECOS:

All Expanded Course Outlines (ECOs) for both Nutrition Science and Dietetics are posted on the HNFS Blackboard site, since we do not have the room in the office to accommodate them. The ECOs for semester conversion are posted on Curriculog.

c) Service Learning and Honor Courses that have been incorporated into the curriculum.

We presently offer the following Service Learning classes: FN 345S/LS Nutrition Education Service Learning and if the students are in the Estudiante de Dietética program, they can also take FN 355AS-Nutrition Counseling for the Hispanic/Latino Population Service Learning.

We offer a number of honor classes for students in the Kellogg Honor College. The following have been utilized as honor's classes: FN 433H Advanced Nutrient Metabolism I -Honors (4), FN 434H Advanced Nutrient Metabolism II-Honors (4), FN 435 Advanced Nutrient Metabolism III-Honors (4), FN 400H Special Study for Upper Division Students (4) used for research of capstone project, FN 200H Special Study for Lower Division Students (projects related to other research projects or faculty projects), FN 328H Culture and Meal Patterns (2).

For semester conversion, we will be offering service learning classes in the following areas: NTR 3450S/AS (which will combine counseling and Nutrition Education). We will continue to offer the honors classes (NTR 2000H, NTR 4000H, NTR 4330H and NTR 4430H), except for FN 328H. This course was replaced by NTR 2280, which is a major core class as well as a GE.

d) List GE or other service classes that are not part of the Major program. Discuss role in the program.

We currently offer 5 classes that are part of the Estudiante de Dietética Program (ED), which was formed to provide Nutrition students classes that are taught in Spanish. These

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

classes also teach cultural competency of all cultures in addition to the Latino population, but focuses more on providing services to our Latino population here in southern California. Students wishing to take these classes must have completed SPN 251 or take an equivalence test in the Spanish Language Department. According to our curriculum sheet, students are able to take our GE courses and apply them to the emphasis if, and only if they will not be used as GE courses. Therefore, all courses offered as GE by our department are part of the option emphasis, but not the major, since Dietetic requirements are based on DPD requirements and cannot be substituted without approval. Additionally, the majority of Dietetic majors do not need additional electives in order to graduate with both the DPD requirements and the Food and Nutrition Bachelor of Science degree.

For semester conversion, we will be offering 3 of the ED classes instead of 5.

e) A comparison of the curriculum in terms of content and distribution of units with comparable programs at other CSU and non-CSU institutions.

We have designed a table to compare NS programs to other CSUs and non-CSU Institutions. Please see Table 2.1. We chose those institutions because they are in southern California (similar geographical area), and/or because their program was housed in the College of Agriculture. It should be noted that UC Davis is the only University of California offering an NS Program.

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

Table 2.1. Comparisons of courses at Cal Poly Pomona, Cal Poly SLO, Cal State LA, Cal State Long Beach, and UC Davis

Cal Poly Pomona Course Offered	Cal Poly SLO	Cal State LA	Cal State Long Beach	UC Davis
FN 100 - Introduction to the Profession	FSN 101	Not required-(N/R)	Not required-(N/R)	Not required-(N/R)
FN 121/121L - Introduction to Foods (2/2)	FSN 121	NTRS 210	Not required-(N/R)	Not required-(N/R)
FN 235-Nutrition (4)	FSN 210	NTRS 317	NUTR 132	Nutrition 10
FN 263 - Intro Research Methods (4)	FSN 420	N/R	N/R	N/R
FN 335 - Nutrition of the Life Cycle (4)	FSN 310- Maternal/Child and FSN 315 Nutr. in Aging	NTRS 413 Maternal/Child	NUTR 331	N/R
FN 345/345L - Nutrition Education (3/1)	FSN 415	N/R	NUTR 334	N/R
FST 125 – Intro. to Food Science and Technology (4)	N/A	N/R	N/R	Food Science and Technology 100A and 100B
FST 321/321L - Experimental Food Science (3/1)	N/R	NTRS 410	N/R	N/R
FST 325 - Food Safety and Current Issues (4)	N/R	N/R	SCI 332	Food Science and Technology 100A and 100B
For Nutrition and Health Emphasis Only-elective subplan				
Semester only Required- **NTR 4250- N/R Intro. To Nutrient Metabolism	N/R	N/R	N/R	N/R
FN 228 - Food and Culture (4) GE Sub-area D3	FSN 250	NTRS 312	NUTR 336	N/R
FN 203 - Health, Nutr and the Integrated Being (4) GE Area E	N/R	N/R	N/R	N/R
FN 400 - Special Study for Upper Division Students (1-2)	N/R	N/R	N/R	N/R

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

Cal Poly Pomona Course Offered	Cal Poly SLO	Cal State LA	Cal State Long Beach	UC Davis
FN 441 - Internship in Foods and Nutrition (1-4)	N/R	N/R	N/R	N/R
FN 445 - Agriculture, Nutrition and Internat. Development (4)	N/R	N/R	N/R	N/R
**NTR 485 Sport Nutrition (3)	N/R	N/R	N/R	N/R
FST 424 - Food Systems in Developing Nations I (4)	N/R	N/R	N/R	N/R
FST 425 - Food Systems in Developing Nations II (4)	N/R	N/R	N/R	N/R
IA 445 - Agriculture, Nutrition and International Development (4)	N/R	N/R	N/R	N/R
For Pre-professional and Animal Nutrition, only	N/R	N/R	N/R	N/R
FN 433 - Advanced Nutrient Metabolism I (4)	FSN 328/329	NTRS 417A	FN 436	Nutrition 111AY, 111B, 112, 116A
FN 434 - Advanced Nutrient Metabolism II (4)	FSN 328/329	NTRS 417B	N/R	Nutrition 111AY, 111B, 112, 116A
FN 435 - Advanced Nutrient Metabolism III (4)	FSN 328/329	N/R	N/R	Nutrition 111AY, 111B, 112, 116A
FN 437 - Nutritional Genomics (4)	BIO 302 or BIO 303 or BIO 351 Genetics/similar	N/R	N/R	N/R
FN 446/446L - Evaluating Complementary and Alternative Medicine (3/1)	N/R	N/R	N/R	N/R
FN 463 - Undergraduate Investigations and Seminar (4)	N/R	N/R	N/R	N/R
NTR 4850 Sport Nutrition Animal Nutrition emphasis-	N/R	N/R	N/R	N/R
** AVS 1010 Animal Nutr. (3)	N/R	N/R	N/R	N/R
** AVS 2010 Animal Diseases (3)	N/R	N/R	N/R	N/R
** AVS 4730 Clinical Nutr.	N/R	N/R	N/R	N/R
** AVS 3500 Ant/Phys of Dom. Animals	N/R	N/R	N/R	N/R

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

Support Courses	Cal Poly Pomona Course Offered	Cal Poly SLO	Cal State LA	Cal State Long Beach	UC Davis
	BIO 115/115A/115L - Basic Biology (3/1/1) (B2, B3) or BIO 121/121L - Foundations of Biology: Energy and Matter - Cycles and Flows (3/2) (B2, B3)	Not listed but required as a prerequisite	Not listed but required as a prerequisite	Not listed but required as a prerequisite	Biological Sciences 2A, 2B & 2C 15
	BIO 235/235L - Human Physiology (4/1)	Bio 232 and BIO 232	BIO 200A and BIO 200B	BIOL 207	Similar to Neurobiology, Physiology, and Behavior 101, 101L
	CHM 121 - General Chemistry (3) and	CHM 127	CHM 151	CHEM 111A	
	CHM 112L - General Chemistry Laboratory (1)	Included	Included	Included	Chemistry 2A-2B-2C and 8A-8B, or 118A-118B, or 128A-128B and 129A
	CHM 122 - General Chemistry (3) and	CHM 128	CHM 152	Included	Chemistry 2A-2B-2C and 8A-8B, or 118A-118B, or 128A-128B and 129A
	CHM 122L - General Chemistry Laboratory (1)	Included	Included	Included	Chemistry 2A-2B-2C and 8A-8B, or 118A-118B, or 128A-128B and 129A
	CHM 123 - General Chemistry (3) and	N/R	N/R	N/R	Chemistry 2A-2B-2C and 8A-8B, or 118A-118B, or 128A-128B and 129A
	CHM 123L - General Chemistry Laboratory (1)	N/R	N/R	N/R	Chemistry 2A-2B-2C and 8A-8B, or 118A-118B, or 128A-128B and 129A
	CHM 201 - Elements of Organic Chem (3) or CHM 314 - Organic Chem (3) and	CHM 312	CHEM 448	CHME 227	Chemistry 2A-2B-2C and 8A-8B, or 118A-118B, or 128A-128B and 129A
	CHM 250L - Elements of Organic Chem Lab (1) or CHM 317L - Organic Chemistry Lab (1)	N/R	N/R	N/R	N/R
	MAT 106 - Trigonometry (4)	N/R	N/R	N/R	Mathematics 16A-16B
	MAT 120 - Calculus for the Life Sciences (4)	N/R	N/R	N/R	Mathematics 16A-16B
	MIC 201/201L - Basic Microbiology (3/1)	MICRO 221	MICR 151	MICR 200	MIC 102 and 103L
	PHY 121 - College Physics (3) and	PHY 121	N/R	N/R	Physics 1A-1B
	PHY 121L - College Physics Laboratory (1)	Included	N/R	N/R	Included

Department of Human Nutrition and Food Science
Nutrition Science Review AY 2016-2017

Cal Poly Pomona Course Offered	Cal Poly SLO	Cal State LA	Cal State Long Beach	UC Davis
AG 101 - Agriculture & the Modern World (4) (D2)	N/R	N/R	N/R	N/R
AG 401 - Ethical Issues in Food, Agricultural, (4) (C4 or D4)	N/R	N/R	N/R	N/R
CHM 121 - General Chemistry (3) (B1) and	Not listed; required as a prerequisite	Not listed; required as a prerequisite	Not listed; required as a prerequisite	Chemistry 2A-2B-2C and 8A-8B, or 118A-118B, or 128A-128B & 129A
CHM 121L - General Chemistry Laboratory (1) (B3) ENG 130 - Freshman English II (4) (A3)	Not listed; required as a prerequisite	Not listed; required as a prerequisite	Not listed; required as a prerequisite	Chem 2A-2B-2C and 8A-8B, or 118A-118B, or 128A-128B& 129A
ENG 107 - Stretch Composition III (4) (A2) or ENG 109 - Advanced Stretch Composition II (4) (A2) or ENG 110 - First-Year Comp (4) (A2)	In GE or equiv.	In GE or equiv.	In GE or equiv.	In GE or equiv.
PSY 201 - General Psychology (4) (E)	N/R	PSY 150	N/R	Anthropology 2 or Psychology 1 or Sociology 1 or 3
STA 120 - Statistics (STAT)	STAT 218	N/R	BIOL 260: Biostats (3) or EDP 419: Educ Statistics (3) Or PSY 110: Intro Stats (4) GE AREA: B2 Or STAT 108: Stats for Everyday Life (3) GE AREA: B2	N/R
Number of electives	20	24	0	15-20 and selection of courses made in consultation with faculty advisor, prior to or upon reaching 120-unit level. Exercise Biology 110; Nutrition 99, 105, 113, 114, 115, 116B, 118, 120AN, 120BN, 122, 123, 124, 127, 130, 190, 192, 199

* All data presented in this table was obtained through respective program websites and online university catalogs accessed on Nov 10, 2012, June 3, 2016, and again September 10, 2016

N/R= not required

**Offered Semester only. For semester conversion, all other classes are changed to NTR designation with a "0" added to make a 4-digit number.

Table 2.2, shows courses not offered at Cal Poly Pomona, but offered at the other local universities.

Department of Individual, Family & Community Education

Counselor Education

Educational Psychology

Family and Child Studies

Nutrition/Dietetics

May 16, 2017

Dear Dr. Preiser-Houy,

I am sending you the External Review Report of the Nutrition Science Option under the Food and Nutrition Major within the Department of Human Nutrition and Food Science at California State Polytechnic University in Pomona.

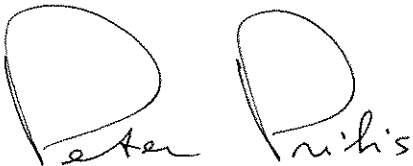
Dr. Wang from California State University in Long Beach and me have reviewed the provided self-study document and conducted a site visit of the program on May 4, 2017.

We have assessed all the specific goals requested for review and provided where appropriate suggestions for action.

There were *no dissenting* opinions between me and Dr. Wang.

If you have any questions do not hesitate to contact me anytime.

Sincerely,



External Review Report
on the Nutritional Science Option
under the Foods and Nutrition Major
within the Department of Human Nutrition and Food Science
at California State Polytechnic University, Pomona

May 2017

External Reviewers

Peter Pribis, MD, DrPH, RD
College of Education
University of New Mexico, Albuquerque

Long Wang, PhD, MD, RDN, FAND
College of Health and Human Services
California State University, Long Beach



External Reviewer Signature

5/16/2017

Date



External Reviewer Signature

5/16/2017

Date

Summary of the Review Process

The external reviewers were identified and notified by the program under review. Both reviewers received the *Self-Study Report, External Reviewer's Responsibilities* and *Itinerary of Site Visit* (both hard copies and electronic copies) in April 2017, which allowed adequate time before the site visit to review the program.

On May 4, 2017, both reviewers conducted site visit of the program on the campus of California State Polytechnic University, Pomona (Cal Poly Pomona). During the site visit, reviewers toured teaching facilities and met with different stakeholders including

- Leaders of Cal Poly Pomona, the College of Agriculture, and the Department of Human Nutrition and Food Science
- Faculty members (both tenured/tenure track faculty and adjunct faculty)
- Supporting staff
- Students

The reviewers had adequate time to ask questions and discuss different issues and preliminary findings with the stakeholders. Adequate time was provided for reviewers to review documents on site.

During and after the site visit, the reviewers communicated with each other openly and closely. When composing this final report, the reviewers aimed to provide summary of findings and make suggestions that are both meaningful as well as concise.

Major Findings and Suggestions

This section addresses the specific goals of this review as outlined in the *External Reviewer's Responsibilities*.

Curriculum of the Program

The Nutritional Science option has the following emphases:

- Pre-Professional Emphasis
- Animal Nutrition Emphasis
- Nutrition and Health Emphasis

List of courses for each emphasis was provided in the self-study report. Summary of comparison to programs at sister CSU campuses was also provided. Curriculum for each emphasis provides students with necessary training that prepares them for different careers of their choice. The differences in core courses required by different emphases reflect the differences in the careers. Review of syllabi confirmed that the courses are well developed. The

reviewers understand that Cal Poly Pomona is currently under transition from the quarter system to the semester system. During interview of faculty and administrators, it was confirmed that the program has a solid plan to revise the courses and the sequencing accordingly.

The reviewers suggest that the program enforce proper prerequisites to ensure that students are adequately prepared as they progress.

Instruction of the Program

Review of CV of instructors confirmed that qualified instructors with different expertise teach in the program. The current instructors are at different stages of their careers, which is beneficial to the program's long-term, sustainable quality.

The reviewers were impressed by the teaching facilities. During the interviews, it was confirmed that the instructors embrace technology in instruction and offer different modalities of delivery to accommodate students with different learning styles. There is a logical strategy to prioritize face-to-face instruction in upper division, more challenging classes.

Student feedback reflects deep appreciation of the quality of the instruction. Certain courses were described as "life changing" by students.

It was acknowledged by both faculty and administrators that the program is currently under-staffed due to recent turnover of tenured/tenure-track faculty for different reasons. The program presently relies heavily on adjunct faculty. There are two on-going searches for tenure-track assistant professor positions. There is a plan for another search in the next academic year. New hires usually receive a start-up package of \$10,000 and reduced teaching load for two years, which is a valuable incentive to join the program. The reviewers wish the program success in the current and future searches. To reduce the risk of unsuccessful search, the reviewers suggest

- Open the search to different ranks (Assistant Professor/Associate Professor) to increase the applicant pool. Recruiting more experienced faculty members helps a program with predominately tenure-track faculty members who are new to academia.
- Include broad range of expertise in the job announcements to avoid small applicant pools that do not meet the threshold to proceed due to narrowly defined areas of expertise.
- Consider changing the timing of search to avoid losing qualified candidates to programs that make offers early.

Student Advising

It was clear to the reviewers that the program enjoys a team of faculty and instructors who are passionate for student success. The program currently has a system that ensures all students meet with their faculty advisors before registration. The College of Agriculture has established an advising center that is staffed by one professional advisor. Peer advising is also employed in student advising.

The reviewers learned that the enrollment of the program has been steadily increasing, while the sister programs at other CSU campuses have been seeing decline in their enrollment.

Due to the extremely high students to faculty ratio, each faculty currently has an advising load of more than 200 students, which poses a challenge to faculty members in their efforts to balance their responsibilities including excellence in teaching, research, and service. The reviewers believe that the on-going and future searches for tenured/tenure-track faculty, if resulting in successful hires, will help alleviate this challenge.

The reviewers understand that this is a union issue at Cal Poly Pomona as to who should be advising students. The reviewers suggest the practice at sister CSU campuses or at the University of New Mexico as references on how to address this challenge. For example, College of Health and Human Services (CHHS) at California State University, Long Beach has an Academic Advising Center (<https://web.csulb.edu/colleges/chhs/academic-advising/>) that is staffed by several professional advisors who advise all CHHS students on registration. Similarly at the University of New Mexico professional advisors provide academic advising (<https://coe.unm.edu/administration/center-for-student-success/advisement/index.html>). As a result, at both institutions faculty members are liberated and able to focus on providing career advice.

Faculty Participation in Research, Scholarship, and Creative Activity (RSCA)

Faculty members are actively involved in RSCA. They have developed research agendas that are appropriate for the program. Detailed summary of faculty's research agendas and publications/presentations was provided in the self-study report. The faculty's publication records meet or exceed the expectations typical for a CSU faculty. Some faculty members are well connected in their professional fields. It is worth of mentioning that, although not required, the lecturers at the program also participate in RSCA as evidenced by publication/presentation records.

The reviewers believe that faculty members' RSCA agendas provide unique learning opportunities to students that are otherwise impossible. Many posters on display in the department were co-authored by students. During interviews, students expressed their appreciation of such opportunities that enable them to further understand the content covered in class through learning-by-doing and to develop their critical thinking skills and levels of confidence in success in their future careers.

The reviewers recognize that it takes commitment and perseverance for faculty at teaching institutions such as Cal Poly Pomona to engage in meaningful RSCA. The reviewers suggest that the faculty continue to find creative ways to integrate RSCA with other responsibilities, for example, developing service-learning courses that are in line with the faculty's RSCA agenda.

Faculty Service to the University

All faculty serve the University in ways that are appropriate with their ranks, experiences and expertise. With consideration of the facts that the program is understaffed and that most faculty are pre-tenure, the reviewers suggest that faculty be strategic and selective when it comes to taking on service responsibilities.

Cooperation with other Academic Programs on Campus

Nutrition is interdisciplinary by nature. It was obvious to the reviewers that nutrition faculty are engaged in interdisciplinary collaboration with other areas/programs on campus.

The program identified the science classes as bottleneck factors of student progression.

The reviewers suggest that the program continue to work with other programs on campus in both research and curriculum development/improvement.

Assessment of Student Learning

The program has a well-developed, detailed mechanism to assess student learning. The self-study report explained the nature, frequency, and format of assessment and how to use the assessment data to improve the program. Detailed assessment data were provided. In cases where assessment data were missing/unavailable, logical and satisfactory explanations were provided.

The self-study report explained the mechanism through which faculty and instructors are evaluated, by students as well as by peers, and measures to improve teaching taken by faculty and instructors after receiving poor evaluations by students. Summary of student evaluation of faculty and instructors was provided. The reviewers noticed that there was one instructor who received poor evaluation by students in multiple terms. The interim department chair confirmed that there are steps that could be taken to address consistent poor reviews.

The reviewers suggest that the program continue to strategically plan and integrate efforts in multiple reviews (for example, the ACEND accreditation review, external review of Nutritional Science, and accreditation at the university level) to ensure quality and timeliness of assessments while being sensitive to faculty's workload related to the reviews.

Resources and Facilities

Detailed summary of resources was included in self-study report. The reviewers were impressed by the laboratory facilities and dedicated staff member during site visit.

Tenured/tenure-track faculty members receive annual funding for professional development. All faculty members are eligible to apply for small grants offered by the University.

Faculty members are well connected with the industry and the profession, which often leads to external funding.

Faculty members indicated that course fees for laboratory- and kitchen- based courses are adequate.

With consideration of high enrollment and the needs of laboratory- and kitchen-based learning, the reviewers suggest recruiting additional staff member(s) to provide assistance in laboratory and kitchen.

Attending to Issues of Diversity and Campus Climate

Cal Poly Pomona is the tenth most diverse university in the nation. In Nutritional Science, diversity is adequately represented in faculty as well as study body, which is consistent with the missions and goals at the University, the college as well as the department levels. The reviewers are aware of efforts to increase diversity in the faculty and applaud such efforts.

New Directions

Considering the facts that a significant percentage of students are first-generation college students, that the program is housed in the College of Agriculture, and that Nutritional Science has a Pre-Professional and Animal Nutrition emphasis, the reviewers suggest that the program connect with R1 institutions with strong agriculture programs who are interested in increasing the diversity in their graduate study bodies and have the resources to offer full scholarships to graduate students. An example of such institutions is Purdue University in West Lafayette, IN.


The reviewers suggest that the program consider offering more sections of the introductory nutrition class that is classified as a GE class. This could increase the resources available to the program, the department and the college. More importantly, it will provide adequate WTUs to help retain the long-term lecturers.

Conclusion

The reviewers appreciate the clarity and quality of the self-study report. Information in the self-study report is presented in a logical and concise manner. It is clear that the author of the report is very knowledgeable of the ACEND accreditation standards. Much data in the self-study report were collected and presented in the format as required by ACEND.

The reviewers conclude that the Nutritional Science option is a well established and solid program. All challenges and minor issues that are currently present can be resolved. The reviewers believe that with the dedicated faculty and staff members who are fully committed to student success, this program will continue to grow and serve well the students and the communities they represent.

Office of the Dean
Don B. Huntley College of Agriculture

Date: September 1, 2017
To: Dr. Larisa Preiser-Houy
Interim Associate VP for Academic Programs
From: Dr. Lisa Kessler 
Interim Dean
Re: Response to Nutrition Science External Review

External reviewers visited the campus on May 4, 2017. The University received the reviewers' report on May 16, 2017, and the College received the report on June 1, 2017. Their report provides a thorough review of the program's status, operations and ambitions. Overall, the review was very positive and notes the deep appreciation the students expressed, as well as the commitment of the faculty.

General Comments

The reviewers were quite positive in all aspects of the review as they mentioned that the syllabi confirm that courses are well-developed and that the program has a solid plan for semester conversion. The reviewers confirmed that the instructors are qualified with varying areas of expertise. They were impressed by the teaching facilities and that the instructors embraced technology in their instruction. They felt that the research agenda of faculty members was appropriate for the program and that the faculty publication records "meet or exceed expectations typical in a CSU." They expressed that the program had a well-developed student learning assessment plan. Lastly, they commented that the faculty is adequately diverse and applauded the efforts made to ensure this diversity.

Suggestions for Improvement

The faculty provided a memo on June 3 stating that they concurred with suggestions regarding program staffing, student advising, faculty service, resources and facilities and new directions with more GE courses.

1. The program enforce proper prerequisites to ensure that students are adequately prepared as they progress (p. 3, paragraph 2).

The department did not mention this suggestion in their June 3 memo.

The Dean's Office (DO) agrees that procedures must be followed to ensure proper pre-requisites are followed by all students. All faculty and any administrative support staff will be instructed on these policies and procedures so they can inform students and follow them.

2. Suggestions to reduce risk of unsuccessful faculty searches were provided which included: opening the search to differing ranks (Assistant and Associate Professor levels), including a broader range of experience in the position description and changing the timing of the search to avoid losing qualified candidate to programs that make offers earlier (p. 3, paragraph 6).

The faculty wrote a memo on June 3 in which they expressed agreement with this suggestion.

The DO is in total agreement with this suggestion and has encouraged the search committee in the past to act in a timelier manner and hopes that this suggestion will encourage the search committee to start earlier in the academic year and to move at an efficient pace. As well, they should write the position description to reflect a broad range of experiences to increase the pool.

3. The reviewers suggest following other campus leads by having more professional advisors with faculty providing career advice (p.4, paragraph 2).

The faculty wrote a memo on June 3 in which they expressed agreement with this suggestion of an advising center.

The DO is fully in support of this suggestion. The College has 1.25 professional advisors which is still not sufficient for 2000 undergraduate students. Thus, there is still a large advising responsibility that falls on the faculty. Currently our 1.25 advisors provide advising for the freshmen and sophomores and the tenure/tenure-track faculty divide the juniors and seniors amongst themselves.

4. The reviewers suggest that the faculty continue to find creative ways to integrate research, scholarship and creative activity with other responsibilities, for example developing service-learning courses in line with their research and scholarship agendas (p. 4, paragraph 5).

The department did not mention this suggestion in their memo.

The DO is in support of this suggestion.

5. The reviewers suggest that the faculty be strategic and selective when it comes to taking on service responsibilities (p. 4, paragraph 6).

The department agreed with this suggestion in its memo.

The DO agrees with this suggestion. However, as the number of tenure-track faculty has been reduced while the number of students has increased over the past 5 years, faculty will continue to be asked to perform a large number of service activities.

6. The suggestion is to work with other programs on campus in both research and curricular development/improvement.

The department did not mention this suggestion in their memo.

The DO concurs that inter-disciplinary work between programs and colleges is beneficial and will encourage and support these efforts.

7. The reviewers suggest that the program continue to strategically plan and integrate efforts in multiple reviews to ensure timeliness and remain sensitive to faculty workload related to reviews.

The department did not mention this suggestion in their memo.

The DO concurs that strategic planning is important and should be continued and all efforts should be made to have reviews occur during the same time frame so efforts are not duplicated or could be used for multiple purposes.

8. The reviewers suggest that there be an additional staff member to provide assistance in the lab and kitchen (p. 5, last paragraph on page).

The department agreed with this suggestion in its memo.

The DO agrees that an additional (even part-time would help) instructional support technician is needed since departmental student enrollment has doubled between 2009 and 2015.

9. The suggestion is to connect with R1 institutions with strong agricultural programs as they may be interested in increasing student body diversity in their graduate programs and have resources to offer full scholarships to our diverse and first-generation student body. (p. 6, paragraph 2).

The department did not mention this suggestion in their memo.

The DO agrees this is a good suggestion and would like to see the department pursue this as it would help our students.

10. The reviewers suggest that the program consider offering more sections of the introductory nutrition class that is classified as a GE class to increase its resources.

The department agreed with this suggestion in its memo.

The DO is fine with this suggestion as long as the classes fill and there are qualified instructors available.

Conclusion:


Overall, the review was very positive and complimentary. The Nutrition Science Program was recognized as being well-established and "solid." The reviewers stated that any challenges and minor issues can be resolved. The reviewers were impressed with the dedicated faculty and staff members who are fully committed to student success. I congratulate the Nutrition Science program on their excellent external review, the quality of the teaching and research, the attention to student success and the ability to do outstanding work with minimal resources is commended and appreciated.



Memorandum

DATE: June 03, 2017

TO: Dean Mary Holz-Clause, Don B. Huntley College of Agriculture; Associate Dean Lisa Kessler, Don B. Huntley College of Agriculture, Dr. Larisa Preiser-Houy, Interim AVP for Academic Programs

FROM: Bonny Burns-Whitmore DrPH, RD, Chair Nutrition Science Option Assessment; Golandam Khayef, DrPH, RD, Marcus Elam, PhD; Broc Sandelin, PhD, Interim Department Chair, Human Nutrition and Food Science 

SUBJECT: Response to the External Review Report on the Nutrition Science Option

The Food and Nutrition faculty and the interim department chair, Dr. Broc Sandelin, agree with the reviewer's assessments and suggestions. Below is a summary of these suggestions.

Program Staffing: The faculty are currently under-staffed, and relies heavily on adjunct faculty. Open the faculty search to different ranks, include a broad range of expertise in the job announcements, and change the timing of the search.

Student Advising: The enrollment of the program has been steadily increasing, while sister campuses have shown a decrease [this is due to those programs or CSU's being impacted]...and the advising load poses a challenge to faculty members in their efforts to balance their responsibilities including excellence in teaching, research and service. The reviews suggest that CPP follow the practices at other universities (and sister universities) by offering an advising center that provides academic counseling, thereby freeing the full-time faculty to focus on career advice.

Faculty Service: Faculty should be strategic and selective when taking on service responsibilities

Resources and Facilities: The reviewers suggest that due to the high enrollment and needs of laboratory and kitchen-based learning, that recruitment of additional staff member to provide assistance in the laboratory and kitchens.

New Directions: Offer more sections of the GE classes to retain long-term lecturers and increase resources and revenue to the program.