CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

ACADEMIC SENATE

ACADEMIC PROGRAMS COMMITTEE

REPORT TO

THE ACADEMIC SENATE

AP-049-156

OPTION IN NUTRITION SCIENCE FOR SEMESTERS

Academic Programs Committee	**Date: 08/22/2016**
Executive Committee Received and Forwarded	**Date: 08/24/2016**
Academic Senate	**Date: 08/31/2016 First Reading 09/28/2016 Second Reading**

BACKGROUND: The Department of Human Nutrition and Food Science has put forward a referral for an Option in Nutrition Science for semesters. This is a revised program.

RESOURCES CONSULTED:
Deans
Associate Deans
Department Chairs
All Faculty

DISCUSSION:
Before reaching the Academic Programs Committee, this program was reviewed by the College Curriculum Committee in the College of Agriculture as well as the Dean of Agriculture and the Office of Academic Programs. All concerns raised at those levels were addressed. The Academic Programs Committee then conducted campus-wide consultation, as well as its own review of the program. No concerns were raised.

RECOMMENDATION:

The Academic Programs Committee recommends approval of the semester program: Option in Nutrition Science.

Nutrition, B.S. - Nutrition Science Option: 120 units			
Status	active		
Hierarchy Entities	Human Nutrition and Food Science		
Approval Process Name	I. Program - Q2S Existing Program/Option/Minor		
Current Step	Office of Academic Programs		
Originator	Bonny Burns-Whitmore		
Created	12/09/2015 11:01PM		
Launched	12/09/2015 11:12PM		
Form			
General Catalog Information			
Department	Human Nutrition and Food Science		
Conversion Category:	Revisioned		
Proposal Type:	Option		
Describe or list changes	Set up a pre-major for both the Nutrition Science (NS) and Dietetic options with a shared core. NS had no mission or objectives, those were designed, and both options can now be evaluated at the core classes. Classes were revisioned and converted to meet the minimum of 120 units. Major Program was approved by College Curriculum Committee on Nov 02.		
Semester Program Name (e.g. Biology, B.S., Art History, B.A.)	Nutrition, B.S. - Nutrition Science Option: 120 units		
Program Description	See attached		
Curriculum Sheet	See attached		
Roadmap	See attached		
Two-Year Course Offering	See attached		
Assessment Plan	See attached		
Select Program	Shared Core		
Prospective Curriculum			
Steps			
Files	Author	Date	File
	Bonny Burns-Whitmore	12/09/2015 11:11PM	Final Program Proposal for NUTR-Option NS-revised 112215.doc

Program Proposal for Re-Vision Programs

BS in Nutrition, with Options in Nutrition Science

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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
	Emphasis Electives	21
	TOTAL DEGREE	**120**
	Required Major Core	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
NUTR 1000	Intro to Professions(MC)	1
NUTR 1210	Intro to Foods(MC)	2
NUTR 1210L	Intro to Foods Lab(MC)	1
NUTR 2280	Food and Culture (D3) (MC)	3
NUTR 2350	Nutrition(MC)	3
NUTR 2350L	Nutrition Lab(MC)	1
NUTR 3130	Intro to Research(MC)	3
NUTR 3350	Nutrition of the Life Cycle(MC)	3
NUTR 3450	Nutrition Education and Counseling(MC)	3
NUTR 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	
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 21 units from selected emphasis

***Pre-Professional**

BIO 4420	Biology of Cancer	3
BIO 2400	Genetics	3
BIO 3220	Cell, Molecular & Developmental Biology	3
BIO 4040	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
NUTR 3930	Advanced Nutrient Metabolism I (3)	3
NUTR 3940	Advanced Nutrient Metabolism II (3)	3
NUTR 4370	Nutritional Genomics (requires NUTR 3930 & 3940)	3
NUTR 4380	Evaluation of Complementary Medicine (req NUTR 3930 & 3940)	3
NUTR 4450	Agriculture, Nutrition and International Development	3
PHY 1220/L	College Physics	3/1

***Nutrition and Health**

AVS 2211	Drugs and Society	3
BIO 3020	Biology of Cancer	3
BIO 3090	Biology of the Brain	3

BIO 3030	Sexually Transmitted Diseases: Current Issues	3
BIO 3280	The Biology of Human Aging	3
COM 3327	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 3030/3030L	Physiology of Exercise	3/1
KIN 4080	Drug Education	3
KIN 4550	Sports Medicine	3
KIN 4650	Exercise Metabolism and Weight Control	3
NUTR 2030	Health, Nutrition & the Integrated Being (3) if GE-cannot be used here	3
NUTR 4410/4420	Internship in Foods and Nutrition (1-3)	1-3
NUTR/IA 4450	Agriculture, Nutrition and International Health	3
PSY 3325	Multicultural Psychology	3
PSY 3326	Health Psychology	3

***Animal Nutrition**

Required classes

AVS 2101	Fundamentals of Animal Nutrition (3)	3
AVS 3305	Animal Diseases (3)	3
AVS 4473	Clinical Nutrition (3)	3
AVS 3350	Anatomy and Physiology of Domestic Animals	3
		Total 12

Require minimum 8 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
NUTR 3930	Advanced Nutrient Metabolism I (3)	3
NUTR 3940	Advanced Nutrient Metabolism II (3)	3
NUTR 4370	Nutritional Genomics (requires NUTR 3930&40)	3
NUTR 4380	Evaluation of Complementary Medicine (req NUTR 3930&40)	3

Option Core = OC

Major Core = MC
GEs are named according to A, B, C, D, E designations
Emphasis Elective areas = *

Nutrition Major: Nutrition Science Option

Curriculum Years: 2018-2020

Your department has developed this road plan, taking into account prerequisites and schedule restrictions. You should pay attention to these concerns when deviating from this plan, however there are many variations that still lead to graduation in four years. Please see the NUTR courses offered each quarter in Blackboard. Sometimes it is necessary to offer a class on a different quarter.

Year 1	**Fall**	**Units**	**Spring**	**Units**	
	ENG 1103 (A2) *	3	CHM 1220/L	3/1	
	NUTR 2350/L	3/1	ENG 2105* (A3)	3	
	NUTR 1000	1	NUTR 3130	3	**Supplement Semester to take GE/Support/ courses**
	CHM 1210/1210L*(B1, B2)	3/1	BIO 1150/L* (B2, B3)	3/1	**GE and support core, as well as elective units to meet requirement of 21 units**
	STAT 1200*(B4)	3			
	Total Units	**15**	**Total Units**	**14**	
			Total Units for Year 1	**29**	
Year 2	**Fall**	**Units**	**Spring**	**Units**	
	BIO 2350/L	3/1	CHM 2010	3	
	CHM 1230/L	3/1	BIO 2060/L	3/1	
	GE D (1)	3	AG 1010* (D2)	3	
	BIO 3000*	3	PSY 2010* (E)	3	**Supplement Semester to take GE/Support/ courses**
	NUTR 1210/L	2/1	Emphasis electives	2	**GE and support core, as well as elective units to meet requirement of 21 units**
	Total Units	**17**	**Total Units**	**15**	
			Total Units for Year 2	**32**	

	Fall	Units	Spring	Units	
Year 3	NUTR 3350	3	MAT 1200	3	**Supplement Semester to take GE/Support/ courses GE and support core As well as elective units to meet requirement of 21 units**
	MAT 1060	3	FST 3250	3	
	NUTR 2280 (D3)	3	Emphasis electives	3	
	NUTR 3450/L	2/1	FST 3210/L	2/1	
	GE C (1)	3	Emphasis electives	3	
	Total Units	**15**	**Total Units**	**15**	
			Total Units for Year 3	**30**	
Year 4	**Fall**	**Units**	**Spring**	**Units**	
	Emphasis electives	3	Emphasis electives	3	**Supplement Semester to take GE/Support/ courses GE and support core As well as elective units to meet requirement of 21 units**
	COM 2040* (A1)	3	Emphasis electives	3	
	Emphasis electives	3	AG 4010 (D4)*	3	
	PHY 1210/L	3/1	NUTR 3280L	1	
	GE C (2)	3	GE C (3)	3	
	File an application for graduation				
	Total Units	**16**	**Total Units**	**13**	
			Total Units for the year 4	**29**	

NUTR Major Semester Courses- 2018-2019

Subject and Catalog No.	Course Name	Schedule
NUTR 1000	Introduction to the Nutrition Professions (1)	FS
NUTR 1210/1210L	Introduction to Foods (2/1)	FS
NUTR 2030	Health, Nutrition and the Integrated Being (3)	FSU
NUTR 2050 (new)	Personal and Consumer Nutrition	FS
NUTR 2280	Food and Culture (3)	FSU
NUTR 2350	Nutrition (3)	FSU
NUTR 2350L	Nutrition Lab (1)	FSU
NUTR 3050	Nutrition, Science and Health (3)	FSU
NUTR 3130	Introduction of Nutrition Research Methods (3)	FS
NUTR 3280L	Culture and Meal Patterns Lab (1)	FS
NUTR 3280A*	Culture and Meal Patterns in Hispanics Activity(1)	F
NUTR 3350	Nutrition of the Life Cycle (3)	FSU
NUTR 3350A*	Nutrition of the Life Cycle Spanish Activity (1)	F
NUTR 3450/3450A	Nutrition Education and Counseling (2/1)	F
NUTR 3450AS*	Nutrition Education Activity Service-Learning (1)	S
NUTR 3670/3670L	Institutional Food Service I (2/1)	F
NUTR 3680/3680L	Institutional Food Service II (2/1)	S
NUTR 3930	Advanced Nutrient Metabolism 1 (3)	FS
NUTR 3940	Advanced Nutrient Metabolism 2 (3)	S
NUTR 4260	Foodservice Administration (2)	F
NUTR 4310	Dietetic Internship Exploration (1)	F
NUTR 4370	Nutritional Genomics (3)	N
NUTR 4380	Evaluation of Complementary Medicine (3)	N
NUTR 4430/A e1	Medical Nutrition Therapy 1 (3/1)	F
NUTR 4440A*	Medical Nutrition Therapy 2 for the Hispanic Population Activity (1)	S
NUTR 4440 e1	Medical Nutrition Therapy 2 (3)	S
NUTR 4460S/4460AS	Community Nutrition (2/1)	FS
NUTR 4410/4420	Internship in Foods and Nutrition (1-3)	N
NUTR 4450	Agriculture, Nutrition and International Health (3)	N

NUTR Major Semester Courses- 2019-2020		
Subject and Catalog No.	**Course Name**	**Schedule**
NUTR 1000	Introduction to the Nutrition Professions (1)	FS
NUTR 1210/1210L	Introduction to Foods (2/1)	FS
NUTR 2030	Health, Nutrition and the Integrated Being (3)	FSU
NUTR 2050 (new)	Personal and Consumer Nutrition	FS
NUTR 2280	Food and Culture (3)	FSU
NUTR 2350	Nutrition (3)	FSU
NUTR 2350L	Nutrition Lab (1)	FSU
NUTR 3050	Nutrition, Science and Health (3)	FSU
NUTR 3130	Introduction of Nutrition Research Methods (3)	FS
NUTR 3280L	Culture and Meal Patterns Lab (1)	FS
NUTR 3280A*	Culture and Meal Patterns in Hispanics Activity(1)	F
NUTR 3350	Nutrition of the Life Cycle (3)	FSU
NUTR 3350A*	Nutrition of the Life Cycle Spanish Activity (1)	F
NUTR 3450/3450A	Nutrition Education and Counseling (2/1)	F
NUTR 3450AS*	Nutrition Education Activity Service-Learning (1)	S
NUTR 3670/3670L	Institutional Food Service I (2/1)	F
NUTR 3680/3680L	Institutional Food Service II (2/1)	S
NUTR 3930	Advanced Nutrient Metabolism 1 (3)	FS
NUTR 3940	Advanced Nutrient Metabolism 2 (3)	FS
NUTR 4260	Foodservice Administration (2)	F
NUTR 4310	Dietetic Internship Exploration (1)	F
NUTR 4370	Nutritional Genomics (3)	N
NUTR 4380	Evaluation of Complementary Medicine (3)	N
NUTR 4430/A e1	Medical Nutrition Therapy 1 (3/1)	F
NUTR 4440A*	Medical Nutrition Therapy 2 for the Hispanic Population Activity (1)	S
NUTR 4440 e1	Medical Nutrition Therapy 2 (3)	S
NUTR 4460S/4460AS	Community Nutrition (2/1)	FS
NUTR 4410/4420	Internship in Foods and Nutrition (1-3)	N
NUTR 4450	Agriculture, Nutrition and International Health (3)	N

Nutrition Major-Nutrition Science 10/09/15

Mission: 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.

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

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) than the requirements for Accreditation Council for Education in Nutrition and Dietetics (ACEND) requirements.

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.

AP-049-156, Option in Nutrition Science for Semesters

Nutrition Science Option: Section 1: **Scientific and Evidence Base of Practice: integration of scientific information and research into practice**

Program goals	SLO # 1.1 Students demonstrate how to locate, interpret, evaluate and use professional literature.	SLO # 1.2 Students use current information technologies.
1. The program prepares graduates for entry-level nutrition careers and/or admittance to nutrition related postgraduate training programs.	**X**	**X**
2. Prepare graduates for entry into food and nutrition-related careers	**X**	**X**
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.	**X**	**X**

AP-049-156, Option in Nutrition Science for Semesters

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

Program Goals	SLO # 2.1 Students demonstrate effective professional oral and written communication.	SLO # 2.2 Students are able to demonstrate assertiveness, advocacy and negotiation skills.	SLO # 2.3 Students are able to demonstrate counseling techniques.	SLO # 2.4 Students are able to locate, understand and apply established nutrition guidelines.	SLO # 2.5 Students are able to identify and describe the roles of nutrition and medical professionals.
1. The program prepares graduates for entry-level nutrition careers and/or admittance to nutrition related postgraduate training programs.	**X**	**X**	**X**	**X**	**X**
2. Prepare graduates for entry into food and nutrition-related careers	**X**	**X**	**X**	**X**	**X**
3. Recruit, retain and graduate a diverse group of undergraduate nutrition science students with social and cultural understanding required to help promote healthy nutrition and food practices.	**X**	**X**	**X**	**X**	**X**

Nutrition Science Option: Section 3. **The physical and biological science foundation of the dietetics profession must be evident in the curriculum. Course content must include organic chemistry, *biochemistry, physiology, genetics*, microbiology, *statistics*, *nutrient metabolism, and nutrition across the lifespan*.**

	SLO # 6.1	SLO # 6.2	SLO # 6.3	SLO # 6.4	SLO # 6.5	SLO # 6.6	SLO # 6.7
Program Goals	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, physiological and biochemical mechanisms by which food and nutrients promote optimal health.	Understand and demonstrate the scientific method and the application of research methodologies.	Interpret basic statistics used in nutrition and medical research.
1. The program prepares graduates for entry-level nutrition careers and/or admittance to nutrition related postgraduate training programs.	**X**	**X**	**X**	**X**	**X**	**X**	**X**
2. Prepare graduates for entry into food and nutrition-related careers	**X**	**X**	**X**	**X**	**X**	**X**	**X**
3. Recruit, retain and graduate, diverse pop. of under-grad Nutr Sci students with social & cultural under-standing req. to help promote healthy nutrition and food practices.	**X**	**X**	**X**	**X**	**X**	**X**	**X**

Assessment Tool (Based on ACEND)			
NUTR Course	**SLO, Link to class and Quality Indicators**	**Assessment method**	**Instructor Responsible/ Assessment Results**
NUTR 1000	**#1.2:** Students are able to use current information technologies to locate and apply evidence based guidelines and protocols. **(I)** 100% of the students will upload a professional portfolio to Blackboard (BB) with 80% accuracy	Submission of portfolio to Blackboard (BB)	
	# 2.1: Students demonstrate effective professional oral and written communication**. (I)** Students will participate in in-class oral presentation and submit 1-professional portfolio at the end of the academic quarter	Roster of attendance for oral presentation 100% of students will submit a professional portfolio at the end of the quarter Portfolio will be graded on a rubric totaling 75 points	
	#2.5: Students are able to identify and describe the roles of others.**(I)** Students will be able to identify and describe the roles of others by writing 7 summaries/reflective statements about guest speakers from nutrition and food science fields	100% of students will turn in their professional portfolio with summaries of course guest speakers. Portfolio will be graded on a rubric totaling 75 points	
NUTR 1210/L	**# 4.4:** Students apply safety principles. **(I).** Students will utilize food safety principles such as hand washing and proper cleaning techniques with 90% accuracy	Rubric for hand washing and cleaning for both instructor and peer evaluation	
	#5.3: Students will demonstrate knowledge of techniques of food preparation and application to the development, modification and evaluation**(I)** Students will prepare recipes using basic techniques, and learn the structure and function of key foods that comprise the recipe with 70% accuracy. Students will also perform experiments such as substituting different types of fat and flours in pastries, breads, and quick breads with 90% accuracy. Students will evaluate all finished products using basic sensory methods.	Instructor observation Sensory evaluation of application Rubric for recipe evaluation	
NUTR 2280	**# 2.1:** Students demonstrate effective professional oral and written	Oral presentations will be measured on a	

	communication. **(P)** Students will research a diverse population and present an in-class oral presentation two written reports on a cultural and diet of the researched population	rubric scale of 1-10 by the instructor and by the class Written reports will be graded using a rubric template provided to students at the beginning of the academic quarter	
	# 3.2: Students apply knowledge of the role of environment, food and lifestyle choices. **(I, P)** Through course lectures, text, articles and assigned readings students will gain and in-depth understanding of the role of environment, food and lifestyle of diverse populations as demonstrated through 15-weekly class assignments	Students will complete 15 bi-weekly assignments analyzing the role of environment, food and lifestyles of assigned diverse populations with 70% accuracy or higher	
NUTR 2350	**#1.1:** Students demonstrate how to locate, interpret, evaluate and use professional literature. **(I).** Students will go to the MyPlate.gov website, input their 5 day (or 3 day) diet and exercise record, interpret the MyPlate comparisons correctly make recommendations for excessive and insufficient nutrient intakes in an assignment with 70% or more accuracy.	Submission of assignment to instructor	
	#1.2 Students use current information technologies (**P).** Students will go to the MyPlate.gov website, input their 5 day (or 3 day) diet and exercise record, interpret the MyPlate comparisons correctly make recommendations for excessive and insufficient nutrient intakes in an assignment with 70% or more accuracy.	Submission of assignment to instructor	
	#2.4: Students are able to locate, understand and apply established guidelines **(I, P)** All students will be able to locate and understand the established guidelines for the Code of Ethics in Dietetics (www.eatright.org) and Position Papers with 80% accuracy	Embedded exam question	
	#3.1: Students use the nutrition care process to make decisions **(I).** Students will describe the nutrition care process with 70% accuracy on their mid-term exam, and 80% accuracy on their final exam	Embedded exam questions	

	# 3.2: Students apply knowledge of the role of environment, food and lifestyle choices. **(I).** Students will be able to discuss the role of environment, food and lifestyle choices on the following chronic diseases: Cardiovascular disease and type 2 Diabetes with 70% accuracy	Embedded exam questions	
	# 4.5: Students develop outcome measures, use informatics principles and technology to collect and analyze data **(I).** Dietetic students will be able to use informatics principles to analyze data relating to individuals and organizations with 70% accuracy	Embedded exam questions	
	# 4.6: Students explain the impact of a public policy on dietetics practice. **(I).** Students are able to explain an impact of public policies (i.e. Healthy People, DRIs, and AND Position Papers) on dietetics practice with 70% accuracy	Embedded exam question	
	# 6.1: Describe the mechanism of action of essential nutrients in health promotion and disease prevention **(I, P).** Students will be able to, with 70% accuracy describe the role of essential nutrients in health promotion (ii) students will be able to, with 70% accuracy, describe the role of essential nutrients in disease and deficiency prevention	Essay exam on midterm regarding essential nutrients and health promotion. Filling in chart on final exam for vitamins and minerals-function in the body, name of deficiency and deficiency symptoms.	
	# 6.2: Describe the mechanism of action of bioactive non-nutrients in health promotion and disease prevention **(I).** (i) Students will be able to, with 70% accuracy describe the role of bio-active non-nutrients (phytochemicals) in health promotion (ii) Students will be able to, with 70% accuracy, describe the role of bio-active non-nutrients in disease prevention	Embedded essay exam questions	
	# 6.3: Determine nutrient needs across the lifespan. **(I).** Students will be able to, with 70% accuracy describe the key nutrient(s) needs in infants, during lactation, adult, and older adults	Embedded exam questions	
	# 6.4: Integrate knowledge of the use of nutrients at the molecular, cellular and organ level **(I, P). S**tudents will be able to, with 70% accuracy describe the process of digestion, absorption and basic	Quizzes and embedded exam questions	

	transport of foods/nutrients in the human		
NUTR 2350L	**#1.1** Students demonstrate how to locate, interpret, evaluate and use professional literature. **I).** Students will go to the ESHA Food Processor software, input their 3 day (or 5 day) diet and exercise record, interpret the actual and DRI comparisons correctly, and make recommendations for excessive and insufficient nutrient intakes in an assignment with 70% or more accuracy.	Completion, submission, and grading of assignment	
	KRD 2.1 Students demonstrate effective professional oral and written communication. **I).** 70% of the students will score ≥ 80% on the nutritional analyses assignments.	Grade on assignment	
	KRD 3.1 Students use the nutrition care process to make decisions. **I).** 70% of the students will score ≥ 80% on diet assessments (case studies) of a person with Heart Disease and Diabetes, as well as proposed recommendations to modify diet and lifestyle.	Grade on assignment	
	KRD 3.2 Students apply knowledge of the role of environment, food and lifestyle choices. (I,P). 70% of the students will score ≥ 80% on diet assessments (case studies) of a person with Heart Disease and Diabetes, as well as proposed recommendations for diet and lifestyle modifications. 70% of the students will score ≥ 80% on their respective Food Record Analysis and make appropriate suggestions for diet and lifestyle modifications	Rubric-graded case studies	
	KRD 4.5 Students develop outcome measures, use informatics principles and technology to collect and analyze data. **I).**100% of the students will use computer technology and the ESHA program (latest version) to analyze diets and suggest diet and lifestyle modifications.	Completion, submission, and grading of assignment	
	KRD 5.3 Students will demonstrate knowledge of techniques of food preparation and application to the development, modification and evaluation of recipes and menus. **I).** 100% of the students will analyze recipes	Completion, submission, and grading of assignment	

	and menus and suggest modifications to meet nutrient requirements.		
NUTR 3130	**#1.1** Students demonstrate how to locate, interpret, evaluate and use professional literature. **(I,P).** (i) Students will choose a peer-reviewed article from PubMed, AJCN, or J of Nutr in a topic of their interest (locate). (ii) Students use this article to diagram the study design, determine study justification, list outcome measurements, describe 2 study results, study limitations and the objectives/aims of the study with 70% accuracy (interpret and evaluate). (iii) Students will be able to describe how to locate peer-reviewed literature with 80% accuracy. (iv) All students then present a poster presentation on the article to the class (use professional literature)	Submission of article to instructor Submission of assignment to instructor Embedded exam essay question Presentation of poster/peer evaluation and instructor feedback	
	#**1.2** Students are able to use current information technologies to locate and apply evidence based guidelines and protocols. **(I, P).** (i) Students use computers to access the Academy of Nutrition and Dietetics Evidenced Based Library website as a source for determining the strength of the evidence for certain practices with 70% accuracy. (ii) Students visit the clinicaltrails.gov website to determine the clinical trial phase of certain treatments with 70% accuracy	Rubric for assignments	
	# 2.1: Students demonstrate effective professional oral and written communication **(I).** (i) Students critically evaluate a research study with 70% accuracy (written).(ii) All students present a poster present-ation on the article to the class (oral)	Rubric for critical evaluation of a research study Design and presentation of a poster	
	# 2.4: Students are able to locate, understand and apply established guidelines. **(I,P).** (i) All students access the American Dietetic Association Code of Ethics and Position Statements website as a source for determining the strength of the evidence or position stances for certain practices with 70% accuracy.(ii) All students take the Collaborative Institutional Training Initiative (CITI) workshop and test	Rubric for the assignment Certification statement from CITI that student has passed with an overall score of >80%	

	regarding Human subject research ethics (Research 101) with >80% accuracy		
	# 4.5: Students develop outcome measures, use informatics principles and technology to collect and analyze data.**(I).** Students will use computer technology to access PubMed and the American Dietetic Association Code of Ethics and Position Statements website as a source for determining the strength of the evidence or position stances for certain practices with 70% accuracy.	Rubric for assignment	
	#6.6: Understand and demonstrate the scientific method and the application of research methodologies. **(I, P)**. Students will be able to, with 70% accuracy describe the scientific method and design a research study, given a problem statement	In-class group assignment; embedded exam questions	
	# 6.7: Interpret basic statistics used in nutrition and medical research using statistically analyzed results. **(P,M).** Using a scientific article, students will, with 70% accuracy, be able to interpret basic statistics used in nutrition and medical research	Assignment of research article; Embedded exam question, Rubric for data analysis interpretation in assignment	
NUTR 3280L	**#4.4:** Students apply safety principles **(P)** Students will complete the department food and lab safety lab video and complete the College of Agriculture Safety Procedure on-line exam with 80% accuracy prior to participating in lab activities	100% of students will complete the safety video and College of Agriculture Safety with 80% or higher accuracy	
	#4.5: Students develop outcome measures, use informatics principles and technology to collect and analyze data **(P)** Students will utilize nutrient analyzes software to assess and develop therapeutically modified diets for clinically compromised patients.	Students will submit a detail evaluation of case study and therapeutic diet meal plan with an accuracy of 70% or greater	
	#5.3: Students will demonstrate knowledge of techniques of food preparation and application to the development, modification and evaluation of recipes and menus. **(P)** Students will create two 7-day culturally appropriate menus which they will modify to meet both the Therapeutic Lifestyle Change Diet (TLC) and the DASH Diet Guidelines	Students will receive a grade for the created menus with a 70% accuracy or higher	
	#5.4: Students will demonstrate knowledge of techniques of food	Students will research, design and prepare	

	preparation and application to the development, modification and evaluation of recipes and menus. **(P)** Students will prepare two 7-day culturally appropriate menus which they will modify to meet both the Therapeutic Lifestyle Change Diet (TLC) and the DASH Diet Guidelines	traditional and therapeutically modified meals of diverse cultures; students will prepare a group power-point presentation describing the meal, culture, and preparation techniques with a 70% accuracy or higher	
NUTR 3350	**#2.4:** Students are able to locate, understand and apply established guidelines. **(P).** 80% of Students will correctly recite and apply (70% accuracy) ADA, AAP, NIH and NCEP and other evidence based guidelines for pregnancy weight gain, infant feeding, prevention of childhood overweight, and prevention of cardiovascular disease	Embedded exam questions and cases	
	#3.1: Students use the nutrition care process to make decisions **(P)**. 80% of students will accurately (70%) use the nutrition care process to recommend pregnancy weight gain, infant-feeding decisions, treat childhood overweight, meet elderly nutrition needs.	Embedded exam questions	
	#3.2: Students apply knowledge of the role of environment, food and lifestyle choices **(P).** 80% of students will accurately (70%) identify and modulate the key risk factors for infertility, premature birth, low and very low birth weight, failure to thrive, childhood overweight, type 2 diabetes, obesity and cardiovascular disease.	Embedded exam question; case studies	
	#4.6: Students explain the impact of a public policy on dietetics practice. **(P).** All students will accurately describe the impact of the WIC and School lunch programs and Meals on wheels and other congregate meal programs on health status of target groups.	Assignment or Embedded essay question	
	#6.1: Describe the mechanism of action of essential nutrients in health promotion and disease prevention **(P, M).** 80% of students will accurately (70%) describe how the DRIs meet pregnancy, lactation, infant growth, adolescence and elderly needs and prevent deficiencies.	Embedded exam question	.

	#6.3: Determine nutrient needs across the lifespan. **(P,M).** 80% of students will accurately (70%): 1) recommend key DRIs for pre-pregnancy, pregnancy, lactation; 2) describe the factors that affect the DRI adjustments across the lifespan; 3) describe the physiological changes in aging that alter the DRIs	Embedded exam question	
	#6.4: Integrate knowledge of the use of nutrients at the molecular, cellular and organ level **(P, M).** 80% of students will accurately describe the process of placental nutrient transport, nutrient utilization by the fetus, mammary tissue.	Embedded exam questions	
	# 6.5: Integrate genetic, physiologic and biochemical mechanisms by which food and nutrients promote optimal health. **(P,M).** 80% of students will accurately (70%): 1) identify the beneficial nutrients in human milk for infant health; 2) describe the mechanisms of action of each nutrient on infant metabolism and growth and prevent of disease; 3) describe the hypothalamus pituitary gonadal axis in providing nutrition support for embryos; 4) describe the regulation of lactation; 4) describe the effect of sex hormones on adolescent male and female growth and sexual maturation.	Embedded exam questions	
NUTR 3450/A	**# 1.1** Students demonstrate how to locate, interpret, evaluate and use professional literature **(I,P).** i. Students will describe with 70% accuracy 4 behavior change models/theories and relate at least one of the 4 to the practice of nutrition education with 70% accuracy. **(P)**. ii. Students can present a nutrition lesson in class using at least one concept from a behavior change model correctly and identify which concept they used. **(P).** iii. Students will identify three concepts within the ADA Code of Ethics as relate to the RD with 70% accuracy **(P).** vi. Students will identify 80% of errors of Conduct that violate ADA Code of Ethics in a Case study with 70% accuracy	Embedded exam questions In-class presentations, students write up a report on the presentation.	
	#2.1: Students demonstrate effective professional oral and written communication. **(P).** All students will develop a nutrition education lesson plan	Rubric for lesson plan and presentation	

	and conduct a lesson in front of the class with a 70% passing rate. **(M).** Each student will conduct a counseling session with a mock patient achieving at least a 70% grade **(M).** All students will write a report on the counseling session with 70% accuracy		
	# 2.2: Students are able to demonstrate assertiveness, advocacy and negotiation skills.(**M**). All students will conduct a counseling session with a mock patient achieving at least a 70% grade	Rubric for counseling session	
	# 2.3: Students are able to demonstrate counseling techniques. **(I, P).** Student will demonstrate ability to conduct nutrition assessment during a mock counseling session achieving at least a 70% grade. **(M**). ii. Each student will conduct a counseling session with a mock patient achieving at least a 70% grade	Rubric: Counseling session rubric Counseling written report rubric	
	# 2.4: Students are able to locate, understand and apply established guidelines **(P).** Each student will conduct a counseling session with a mock patient achieving at least a 70% grade	Rubric for counseling session	
	# 3.1: Students use the nutrition care process to make decisions**. (P)** Each student will conduct a counseling session with a mock patient achieving at least a 70% grade. **(P).** Each student will describe the nutrition care process with 70% accuracy on their mid-term exam	Rubric for counseling session Embedded exam questions	
	# 3.2: Students apply knowledge of the role of environment, food and lifestyle choices. **(P).** i. Students will understand the role of enviroment, food and life style on eating habits and delivery of nutrition education as demonstrated by knowledge of the theories of behavior change applciation to nutrition education questions on an exam with 70% accuracy. **(P)**. ii. Each student will conduct a counseling session with a mock patient achieving at least a 70% grade	Embedded exam questions, Rubric for counseling session	
	# 3.3: Students develop an educational session or program/educational strategy for target populations. **(P).** All students will develop a plan and conduct a lesson in front of the class with a 70% passing rate	Rubric for lesson plan and presentation	
	# 4.7: Students explain the impact of health care policy, administration,	Embedded exam question	

	different health care delivery systems and current reimbursement policies.. **(P).** Students will identify and describe the effects of health care delivery systems and reimbursement policy on dietetics counseling with 70% accuracy		
NUTR 3930 & NUTR 3940	**#6.1:** Describe the mechanism of action of essential nutrients in health promotion and disease prevention. **(M).** 80% of students will accurately (70%) describe (1) how DRIs are established; 2) mechanism of action of the DRIS at preventing deficiency symptoms; 3) mechanism of action for five dietary components of the NCEP ATP-III plan and TLC, DASH to prevent coronary artery disease; 4) describe the mechanism by which fiber, glycemic load and index manage blood glucose levels.	Embedded exam questions	
	#6.2: Describe the mechanism of action of bioactive non-nutrients in health promotion and disease prevention **(P,M).** 80% of students will accurately (70%) describe the effects of bio-active non-nutrients on enzymes, transport, metabolic pathways that enhance general health.	Embedded exam question	
	#6.3: Determine nutrient needs across the lifespan. **(M).** 80% of students will describe accurately (70%) how stage of development changes the metabolic requirement for nutrients.	Embedded exam question	
	# 6.4: Integrate knowledge of the use of nutrients at the molecular, cellular and organ level **(M).** 80% of students will accurately (70%): 1) identify regulatory enzymes that utilize nutrients in metabolic pathways; 2) describe the differences in organ utilization of nutrients; 3) identify the hormones and genes activated and inhibited by dietary treatment and nutrients; 4) describe the metabolic flow of nutrients among organs during absorptive, post-prandial, post-absorptive, fasting and starvation states; 5) describe the complex nature of carbohydrate, protein and fat metabolism in energy balance.	Embedded exam question	
	# 6.5: Integrate genetic, physiologic and biochemical mechanisms by which food and nutrients promote optimal health. **(M).** 80% of students will accurately	Embedded exam question	

	(70%) describe intermediary metabolism regarding diabetes, ketosis, protein energy metabolism, blood pressure regulation, dehydration		
	# 6.7: Interpret basic statistics used in nutrition and medical research using statistically analyzed results **(P,M)**. 80% of students will correctly (70%) interpret tables and figures containing data representing nutrient utilization, physiologic function, and biochemical function.	Embedded exam question	
FST 3250	**#1.1** Students demonstrate how to locate, interpret, evaluate and use professional literature (P). Report of recent advances in an area of food safety. 100% of students will complete with at lest six peer-reviewed and four trade journal articles.	Rubric for report	
	#4.4: Students apply safety principles. (P) Students will identify how their own home cooking preparation meets HACCP standards with 90% of students earning a grade of 70% or higher	Homework grade	

CAL POLY POMONA COMPLIANCE MAP TO ACEND REQUIREMENTS (DIETETICS)-
DEPARTMENT OFFERING-SLOs

Course number	1.1.1	1.1.2	2.2.1	2.2.2	2.2.3	2.2.4	2.2.5	3.3.1	3.3.2	3.3.3	4.4.1	4.4.2	4.4.3	4.4.4	4.4.5	4.4.6	4.4.7	5.5.1	5.5.2	5.5.3	5.5.4	5.5.5
NUTR 1000		X					X															
NUTR 1210/L														X						X		
NUTR 2280			X						X													
NUTR 2350	X	X				X			X	X					X	X						
NUTR 2350L	X		X					X	X													
NUTR 3130	X	X	X			X									X							
NUTR 3280L									X					X	X					X		
NUTR 3350						X		X	X							X						
NUTR 3450/A	X		X	X	X	X		X	X	X							X					
NUTR 3670/L			X	X			X				X		X	X				X	X			X
NUTR 3680/L			X	X					X		X											X
NUTR 4260			X				X					X	X	X				X	X			X
NUTR 3930																						
NUTR 3940																						
NUTR 4430/A	X	X	X	X		X	X	X	X													
NUTR 4440	X	X	X	X		X	X	X	X													
NUTR 4460/A	X	X	X	X		X		X	X	X	X					X	X					
FST 3250	X										X			X								
FST 3210/L	X	X	X									X		X	X					X		X

Example: 1. 1.1 = 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.

CAL POLY POMONA COMPLIANCE MAP TO ACEND REQUIREMENTS-DEPARTMENT OFFERINGS

	SLOs						
Course number	**6.6.1**	**6.6.2**	**6.6.3**	**6.6.4**	**6.6.5**	**6.6.6**	**6.6.7**
NUTR 1000							
NUTR 1210/L							
NUTR 2280							
NUTR 2350	**X**	**X**	**X**	**X**			
NUTR 2350L							
NUTR 3130						**X**	**X**
NUTR 3280L							
NUTR 3350	**X**	**X**	**X**	**X**	**X**		
NUTR 3450/A							
NUTR 3670/L							
NUTR 3680/L							
NUTR 4260							
NUTR 3930	**X**	**X**	**X**	**X**	**X**	**X**	**X**
NUTR 3940	**X**	**X**	**X**	**X**	**X**	**X**	**X**
NUTR 4430/A	**X**	**X**	**X**	**X**			
NUTR 4440	**X**	**X**	**X**	**X**			
NUTR 4460/A							
FST 3250							
FST 3210/L						**X**	

Example: 1. 1.1 = Section 1: Scientific and Evidence Base of Practice: integration of scientific information and research into practice: 1.1

COURSE MAPPING NUTRITION MAJOR

Course number	1.1.1	1.1.2	2.2.1	2.2.2	2.2.3	2.2.4	2.2.5	3.3.1	3.3.2	3.3.3	4.4.1	4.4.2	4.4.3	4.4.4	4.4.5	4.4.6	4.4.7	5.5.1	5.5.2
NUTR 1000		I					I												
NUTR 1210/L														I					
NUTR 2280			I						I,P										
NUTR 2350	I	P				I,P			I	I					I	I			
NUTR 2350L	I		P					I	P										
NUTR 3130	I	I,P	I			I,P									I				
NUTR 3280L									P					P	P				
NUTR 3350						P		P	P							I			
NUTR 3450/A	I,P		P,M	M	I,P,M	P		P	P	P							I		
NUTR 3930																			
NUTR 3940																			
NUTR 4460/A	M	M	P,M	P		M		P	P	M	P					M	P,M		
FST 3250	I										I			I					
FST 3210/L	P	P	P									I,P		P	P				

COURSE MAPPING NUTRITION MAJOR

Course number	5.5.3	5.5.4	5.5.5	6.6.1	6.6.2	6.6.3	6.6.4	6.6.5	6.6.6	6.6.7
NUTR 1000										
NUTR 1210/L	I									
NUTR 2280										
NUTR 2350				I	I	I	I			
NUTR 2350L										
NUTR 3130									P	P,M
NUTR 3280L	P									
NUTR 3350				P,M	P,M	P,M	P,M	P,M		
NUTR 3450/A										
NUTR 3930				M	M	M	M	M	M	P
NUTR 3940				M	M	M	M	M	M	P
FST 3250										
FST 3210/L	P		I,P						P,M	