

JCAST:

Food Science and Nutrition B.S.: Human Nutrition major

Student Outcomes Assessment Plan (SOAP)

I. Mission Statement

The mission of the faculty of the Department of Food Science and Nutrition is to:

- Impart food-related knowledge and skills to our students
- Apply food-related knowledge and skills to research and scholarly activity
- Integrate with industry and students to apply food-related knowledge and skills to advance the region.

II. Institutional Learning Outcomes, Program Learning Outcomes/Goals, and SLO's [a,b,c]

- A. Institutional Learning Outcomes. Fresno State ILO's are posted on the following webpage:
<http://fresnostate.edu/academics/oie/assessment/fresno-state-assessment.html>

1. Acquiring specialized knowledge
2. Improving intellectual skills
3. Applying knowledge

B. Program Learning Outcomes (Also known as Goals) and related SLO's

1. PLO (Program learning outcome) in both options: Students will be able to think critically in order to analyze information and will be able to communicate their knowledge and analysis effectively in written and oral forms.

Student Learning Outcome (SLO) 1: Students will demonstrate sufficient and appropriate knowledge in Dietetics OR Nutritional Science. (Students will have chosen one of these options)

SLO 2: Students will demonstrate proficiency in written communication.

SLO 3: Students will demonstrate proficiency in oral communication by giving presentations.

SLO 4: Students will collect and analyze data.

SLO 5: Students will evaluate and use data in decision-making.

Dietetics Option:

2. PLO 1D: Students will apply critical thinking skills and demonstrate how to locate, interpret, evaluate and use professional literature to make ethical, evidence-based practice decisions.

- a. **SLO: 1D.1:** Students will apply critical thinking skills
- b. **SLO: 1D.2:** Students will demonstrate an understanding of cultural competency/sensitivity.

Nutritional Science option:

3. PLO 1N: Students will be prepared to participate in research projects and professional development within the fields of human nutrition and research.

- a. **SLO 1N.1:** Students will identify central issues and current research areas that are important in the field of human nutrition.
- b. **SLO 1N.2:** Students will design, and interpret research projects or pilot studies.
- c. **SLO 1N.3:** Students will implement research that could be submitted in a peer-reviewed journal or professional/technical audience.
- d. **SLO 1N.4:** Apply knowledge of biochemistry and physiology to human nutrient metabolism.

III. Curriculum Map (Matrix of Courses X Learning Outcomes)											
Student Learning Outcomes:	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 1D.1	SLO 1D.2	SLO 1NS.1	SLO 1NS.2	SLO 1NS.3	SLO 1NS.4
All Options:											
FSC 1	I				I						
CULG 50	I		I	I	I						
FSM 60	I				I		I	I			
NUTR 61	I	I	I	I	I	I	I				
NUTR 53 (GE)	I	I		I	I	I	I	I	I	I	I
NUTR 153	D	D	D	D	D	D		D			D
NUTR 154	D	D	D	D	D	D		D			D
NUTR 160	D	D	D	D	D	D	D	D			
NUTR 165	D	D	D	D	D	D	D	D			
Electives (NUTR170, NUTR147, CULG 55, FSC 112, FSM193,	D	D	D	D	D	D	D				

FSM131, FSM133, FSM134, FSN 60, NUTR 162 T - Plant based nutrition											
Option 1 Dietetics											
FSM 60	I				I		I	I			
NUTR 61	I	I	I	I	I	I	I				
FSM 131	I	I									
FSM 133	D	D			I	I					
NUTR147	D	D									
NUTD 153	D	D	D	D	D	D		D			D
NUTR 154	D	D	D	D	D	D		D			D
NUTR 160	D	D	D	D	D	D	D	D			
NUTR 165	D	D	D	D	D	D	D	D			
NUTR 166S	D	D	D	D	D	D	D				
NUTR 170	M	M	M	M	M	M	M	M	M		
COUN 174 (162T)	D	D	D	D	D	D					
NUTR 175	M	M	M	M	M	M					
CULG 152	D	D	D	D	D	D		D	D		
NUTR 156	D	D	D	D	D	D	D				
NUTR 157	M	M	M	M	M	M	M				
NUTR 149	M	M	M	M	M	M	M				
Option 2											
Nutritional Science											
FSC 1	I				I						

CULG 50	I		I	I	I						
FSM 60	I				I		I	I			
NUTR 61	I	I	I	I	I	I	I				
NUTR 53 (GE)	I	I		I	I	I	I	I	I	I	I
FSM 131	I	I									
FSM 133	D	D			I	I					
FSM 134	M	M	M	M	M						
NUTR147	D	D	D	D	D						
NUTR 153	D	D	D	D	D	D		D			D
NUTR 154	D	D	D	D	D	D		D			D
NUTR 160	D	D	D	D	D	D	D	D			
NUTR 165	D	D	D	D	D	D	D	D			
CULG 152	D	D	D	D	D	D		D	D		
NUTR 180 (Research Methods in Food and Nutrition)	M	M	M	M	M			M	M	M	M

For courses in the major, using the abbreviations below, indicate which outcomes are introduced, which are developed, and which are mastered in that particular course.

I = Introduced

D = Developed

M=Mastered

IV. SLO's Mapped to Assessment Measures and Methods [e]

Assessment Measure	Evaluation Method	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 1D.1	SLO 1D.2	SLO 1NS.1	SLO 1NS.2
Written Assignments	Rubric	X	X		X	X	X	X	X	X
Oral presentations	Rubric	X		X			X	X		
Course examination	score	X				X	X	X	X	X
Senior Exit Survey	Rubric	X				X				

V. Assessment Measures: Description of Assignment and Method (rubric, criteria, etc.) used to evaluate the assignment [f]

- A. Direct Measures (Department/Program must use a minimum of three different direct measures)
1. Written assignments including essays and specific assignments such as the Dietetics Fact Sheet and several nutrition related case studies will be used to evaluate whether or not students are able to demonstrate sufficient proficiency in knowledge of the appropriate content for their option, written communication and critical thinking, and analysis. For example worksheets assignment in NUTR153.
 2. Oral and written presentations: Individual and group presentations in courses will be used to determine if students are able to demonstrate sufficient proficiency in utilizing critical thinking skills during oral communication and written documentation. For Example Case study assignment in NUTR157 includes an oral presentation and writing project and this assignment can assess student's critical thinking skills and knowledge using a specific rubric.
 3. Midterm and final exams will be used to provide a moderate indicator of students' knowledge, problem solving skills, and written communication skills associated with our department's learning outcomes. The majority of our courses apply quizzes and midterm examinations, along with comprehensive final examinations. Students should achieve a score of C or better on average to be able to pass.

- B. Indirect Measures (Department/Program must use a minimum of one indirect measure)
1. Senior Exit Survey: A senior exit survey will be administered to Food Science & Nutrition undergraduate students. The survey includes general questions about the student and work experiences while in the program. The students are asked to complete a series of responses using a 5 points scale to evaluate their university experience in relation to how well they think it prepared them for a career. Additionally, a senior exit survey for Didactic Program in Dietetics (DPD) students will be administered to assess their evaluation of meeting the Accreditation Council for Education in Nutrition and Dietetics (ACEND) Knowledge requirement for Registered Dietitian Nutritionists (KRDN)– knowledge competencies for students pursuing a DPD program to move on to the next step of applying for a dietetic internship program.

VI. Assessment Schedule/Timeline [g]

Academic Year	Measure	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 1D.1	SLO 1D.2	SLO 1NS.1	SLO 1NS.2	SLO 1NS.3	SLO 1NS.4
2022-2023	NUTR166S. Community Nutrition	X	X	X	X	X	X	X				
2023-2024	NUTR153 worksheet	X	X		X	X						
2024-2025	NUTR 157 Case study	X	X	X	X	X	X					
2025-2026	NUTR 180 (Research in Nutrition) Final project	X			X	X			X	X	X	X
2026-2027	NUTR 170 Reflection journal	X	X		X			X				

VII. Process for Closing the Loop

Our department will evaluate one of our two options (Dietetic and Nutritional Science) per year. Our department will decide on the assessment methods in the department weekly meeting for each option and the assessment coordinator will use the meeting time to plan and monitor the progress of the evaluation. All faculty members will review and discuss annual assessment report findings during meetings. If faculty decide opportunities exist to better assist our students, a revision will be considered/plan for teaching capacity building, student learning outcomes adjustments, the methods for assessment and/or program curriculum modifications.

