

# Course-Level Assessment Project Final Report

To complete the Final Report, type your responses to the prompts below. Share a copy of the document with your supervisor and the Associate Provost of Assessment and Institutional Effectiveness.

Faculty Name(s): Sharon Brunner

Division/Department: Social Sciences/Public Health & Exercise Science

Course Assessed: HLTH-210, Nutrition & Weight Management

## Step 1. Define

Explain the purpose or rationale for assessing the selected course.

Identify which course objective(s) were assessed. Briefly explain why you selected these course objectives for assessment.

Identify to which program goal(s) selected course objective(s) align.

HLTH-210-75, Nutrition & Weight Management, is a 13-week asynchronous online course offered as a public health or exercise science elective. This course is not part of either program assessment plan. However, many students not following either of these concentrations also take the course. Before the Fall of 2022, a textbook called *Nutrition, Exercise, and Behavior*, was used, but it needed to be updated, and no new editions were available. Other books were reviewed for content and cost. It was decided that open educational resources (OER) would be more appropriate and cost-effective. While the course objectives did not change with the OER, many assignments did.

This is a preliminary course assessment for improvement purposes. This full course-level assessment provides insight into how students performed for each objective following a task-oriented assessment approach. There were 12 students enrolled. One student remained enrolled but submitted none of the assignments. Therefore, 11 students were used for this analysis. The course will be offered again in the 2023 spring semester.

# Step 2. Design

Describe the instrument (project/assignment) used to assess identified course objective(s). What benchmarks and/or controls were established? Explain how the assessment instrument was externally reviewed and validated.

Various tasks within assignments were used to assess the course objectives. Proficiency was confirmed by determining if a student completed (Y) or did not complete (N) the identified task. Assignment grades were not used to establish proficiency. Table 1 below provides the course objective and assessment methods, including the assignment task, proficiency measure, the number of students who achieved the task, and the equated percentage. Controls were not established as this is a task-oriented assessment to determine how the students as a class performed. Each identified assignment task was not externally reviewed or validated for this preliminary assessment.

Table 1. Course Objectives and Assessment Methods

Course Objective	Assessment Method	Assignment Task	Proficiency Measure	Number of Students Who Achieved the Assignment Task	Percentage Who Achieved Proficiency	Notes
1. Clinically define underweight, overweight, and obesity.	Lab 1	Identify your weight category (underweight, healthy weight, overweight, obese) based on your calculated results.	Used the clinical criteria to establish the current weight category. Y or N	YYYYYYYYYYYY	100%	Keep – These criteria are needed for Reflection 5.
2. Examine lifestyle and environmental factors that influence health and weight.	Reflection 1	Review the Social Ecological Framework in Module 1 Reading & Videos. List your top FIVE factors of influence. Briefly reflect by explaining your ranking.	Expressed five influences with explanations. Y or N	Y Y Y Y Y Y Y Y = 8 N N N = 3	72.7%	Keep – emphasis on explanation is needed.
	Reflection 3  Reflection 6	How do stress and sleep affect your hunger and appetite?  Discuss your thoughts and behaviors shaped by your culture regarding the following: Food and nutrition; Physical activity and exercise; Weight/body size; School and work; Family and other values.	Explained the impact of each one. Y or N  Articulated how culture shapes one's perceptions and behaviors for each category. Y or N	YYYYYYYYY = 10 N = 1 YYYYYYYY = 8 N N N = 3	90.9%	Keep- reflective content was strong. Keep - reflection was appropriate and relevant.

3. Identify the	Lab 3	Describe the	The functions	YYYYY	50%	Revise – seek
macronutrients and micronutrients and the biological function of each.		functions of the macronutrients and micronutrients.	of the three macronutrients and the micronutrients by category were identified. Y or N	NNNNN		an instrument, such as a quiz or survey, to determine proficiency.
4. Discuss the interrelationship between nutrition, weight, and chronic disease risk.	Lab 1	Discuss four consequences that have you concerned or raised awareness based on your current BMI result, your weight in the past or possible weight in the future.	Four consequences of BMI were explained. Y or N	YYYYYYYYYYYY	100%	Keep – connection made between BMI, eating, and chronic disease.
5. Apply nutrition, physical activity, and weight assessment methods.	Lab 2	In a minimum of 100 words, discuss your satisfaction or dissatisfaction with your anthropometrics. Explain based on the measurements you took.	Satisfaction or dissatisfaction was discussed in connection to specific anthropometric measurements (BMI, Weight Range, Waist-Hip Ratio, and Waist-Height Ratio). Y or N	Y Y Y Y Y = 5 N N N N N N	45.5%	Revise instructions to minimize broad responses.
	Lab 5	Review your Results page after completing the Basal Metabolic Rate section. Reflect on that information and the calculated calorie amount for your selected activity level. Explain whether you agree or disagree with this information and your results.	The estimated calorie amount calculated for the self-selected physical activity level was analyzed. Y or N	Y Y Y Y Y Y Y = 7 N N N N = 4	63.6%	Keep – emphasize analysis in the instructions.
	Lab 6	Complete the excel spreadsheet	The 24-hour MET chart was	Y Y Y Y Y Y Y = 7 N N N N = 4	63.6%	Keep – emphasize comparative

		found with the instructions to determine your estimated calorie expenditure based on a 24-hour MET assessment. After completing it, reflect on what you noticed in this record about your daily activity.	completed and analyzed. Y or N			analysis with other calorie expenditure methods within the assignment.
6. Describe the role of the brain, metabolism, and genetics in eating behavior.	Lab 3	Reflect on what you learned about sugar and the brain.	Discussed the impact of sugar on brain function. Y or N	Y Y Y Y Y Y Y Y Y Y = 8 N N N N = 3	72.7%	Keep – relevant responses with details.
	Reflection 3	Food craving versus addiction? Which side are you on with this debate?	Explained stance on whether individuals crave specific foods or if they are addicted to food. Y or N	Y Y Y Y Y Y Y Y Y Y Y Y Y = 10 N = 1	90.9%	Keep – relevant responses with appropriate explanations.
	Lab 5	Read about the basal metabolic variables. Discuss the variables that apply to you.	Explained the basal metabolic variables relevant to the student's gender, age, behavior, and physical stature.	Y Y Y Y Y Y Y = 7 N N N N = 4	63.6%	Keep – emphasize explanation needed for gender and age.
7. Recognize signs and symptoms of various eating disorders and treatment approaches for each.	Reflection 2	Review the eating disorders article and watch the video about eating disorders warning signs and symptoms. Reflect on what you learned in a minimum of 100 words.	Provided a reflective discussion about the eating disorder signs and symptoms with details. Y or N	Y Y Y Y Y = 5 N N N N N N = 6	45.5%	Revise. Search for a valid survey or quiz to assess proficiency in recognizing signs and symptoms.

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8. Evaluate behavioral and non-behavioral approaches for weight management	Reflection 4	Read the article Comparison of Dietary Macronutrient Patterns of 14 popular named Dietary Programs. Determine two dietary patterns in the article that you want to compare. Write a reflective response about two dietary patterns, including why you selected them and their similar and different characteristics.	Provided a comparative discussion for two self-selected dietary patterns. Y or N	Y Y Y Y Y Y = 7 N N N N = 4	63.6%	Keep – emphasize discussing diet characteristic s and not the clinical study results when comparing the two methods.
	Reflection 5	Review the website sections: What are the benefits of using prescription medications to lose weight? What are the concerns about using prescription medications to lose weight? Based on the information provided, would you be for or against taking a weight loss medication if your doctor indicated you were eligible and recommended taking one?	Explained stance for or against weight loss medications. Y or N	YYYYYYY 9 N N = 2	81.8%	Keep – emphasize explanation of one stance using knowledge obtained.
9. Develop a personal weight management and chronic disease prevention plan.	Final Project	In a minimum of 200 words, discuss how you will use what you learned in this course and	Provided at least three strategies that support the information in the project for	Y Y Y Y Y = 5 N N N N N N = 6	45.5%	Revise - emphasize projected actions to minimize

project to support your nutrition behavior and weight management over the next six months. Be specific with	nutrition behavior and weight management. Y or N		broad discussion.
actions and strategies.			

### Step 3. Implement

Explain how the assessment was implemented.

Did any unexpected challenges arise in implementing the assessment?

Each task assessed was implemented in the various module assignments. No challenges arose because the students were provided with the materials and instructions in advance. In most cases, the students had a week to complete an assignment. Students had two weeks to complete the final project, which was used to assess course objective 9. The greatest challenge is finding a valid instrument to assess each course objective. Nutrition education assessments exist; however, they are generally used with patients in clinical settings. A literature review will determine if there is an appropriate instrument for objectives 3 and 7, as each is typically included in lower-level college nutrition courses.

## Step 4. Analyze

Explain the data that was collected and how the data was analyzed.

To what degree did students meet the established benchmarks?

Consider the intention of learning activity and assessment as compared to results.

The data collection consisted of student responses in the identified assignments for the specified tasks. The analysis consisted of reviewing the response, not the grading criteria, to determine if each student met the objective. If the student did meet the proficiency measure, a "Y" was recorded. Benchmarks were not established as this was a preliminary review to determine overall student performance. The data is a bit skewed as "N" was used if the student did not submit the assignment, meaning failure to meet the objective. In some cases, particularly for objectives 3, 5, 7, and 9, the learning activity instructions may need to be revised because the student responses were often broad and not indicative of achieving proficiency.

#### Step 5. Modify/Maintain

Based on the analysis of data, describe changes made to the course and/or course materials.

Summarize the results of implementing changes, re-administering the assessment, and collecting and analyzing new data.

Notes were added in the table above based on the results for each objective. Assignment instructions for some identified tasks could be modified to support students' understanding of the task. Many of the assignments will continue where noted by "Keep" and strengthened per the notes. A literature review will be conducted to determine available nutrition education instruments and their alignment with the course objectives.

#### **Final Results and Recommendations**

The overall results showed:

- 100% of the students achieved proficiency for Objectives 1 and 4.
- 90.9% of the students achieved proficiency for the Objective 2 task requiring an explanation of the impact of stress and sleep on hunger and appetite.
- 72.7% of the students were able to explain the specific lifestyle and environmental factors that influence health and weight for Objective 2.
- 50% of the students achieved proficiency for Objective 3, requiring macronutrient and micronutrient function descriptions. An alternative assessment method/tool will be researched.
- 45.5% of the students mastered discussing their anthropometric data used for Objective 5. However, 63.6% of the students achieved proficiency for two other assessment methods used to measure objective 5.
- 63.6 to 90.9% of the students achieved proficiency for Objective 6, involving an explanation of the impact of sugar on the brain, food craving versus addition, and personally relevant basal metabolic variables.
- 45.5% of the students discussed eating disorder signs and symptoms as a measure of proficiency for Objective 7. An alternative assessment method/tool will be researched.
- 63.6% and 81.8% of the students achieved proficiency for the Objective 8 tasks used to evaluate behavioral and non-behavioral approaches for weight management.
- 45.5% of the students achieved proficiency for Objective 9, which required projected action strategies to be implemented. The instructions will be revised to clarify action strategies versus a broad discussion of the content learned.

The recommendations include maintaining the assessment methods with task instruction modifications for the spring 2023 semester. However, a new assessment method may be used to assess Objectives 3 and 7. Student performance in spring 2023 will be compared with these assessment results. A benchmark of 70% will be used to determine if the spring students met proficiency for an objective.

Rosalie Mince	1/10/23
Supervisor Signature	Date

Please forward a copy of the signed report to the Associate Provost of Assessment and Institutional Effectiveness.