

Course Outcomes Assessment

Course/Program Title: DHY 205 Nutrition and Biochemistry in Dentistry

Date: 12/21/18

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Expected Learning Outcomes:

- Examine the role of nutritional biochemistry in the formulation of a diet analysis, energy expenditure and nutritional counseling.
- Create a nutritional assessment of a patient's diet and use it for recommending appropriate changes for a healthier mouth and body.
- Examine the role of food source nutrients in human growth and development.

Assessment: (How do or will students demonstrate achievement of each outcome? Please attach a copy of your assessment electronically.)

1. Tests, nutritional analysis projects and writing assignments measure student performance for the expected learning outcomes.

4 Unit Exams (4 @ 100 points each)	400 points
Discussion Board Post Sets (7 @ 5 points each)	35 points
Online written assignments (7 @ 10 points each)	70 points
Nutritional Analysis	120 points
Energy Expenditure Project	40 points
Classroom Engagement (5%)	33 points
Total	698 points

Validation: (What methods have you used or will you use to validate your assessment?)

1. Students must successfully demonstrate skills learned in this course and receive a grade of 75% (C) or higher to progress in the Dental Hygiene Program

(100% (19/19) of students achieved an average of 79% or higher on all unit exams)

(100% (17/19) of students achieved an average of 86% or higher on online discussion posts

(100% (16/19) of students achieved an average of 85% or higher on the two nutritional analysis projects)

((15/19 students achieve an average of 85% or higher on all 7 online writing assignments)

2. Students must successfully complete a Nutrition Case Presentation with 24 hour food diary in DHY-221 Clinic IV. The intent of this project is for the student to identify a patient who could benefit from nutritional counseling to improve their oral and systemic health. Students must identify a patient with dietary behaviors that put them at risk for disease, collect and analyze a 24 hour food diary, and present a customized educational presentation to the patient.

Results: (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

1. Unit Exam and Nutritional Analysis Project Evaluation Results

Results (n=20)	Validation Outcomes	Class Average
Exam #1	19/19 scored <78%	93.3%
Exam #2	19/19 scored <87%	93.5%
Exam #3	19/19 scored <87%	92.2%
Exam #4	19/19 scored <81%	92.4%
Nutritional Analysis	19/19 scored <80%	94.5%
Energy Expenditure Project	19/19 scored <87%	98%

2. DHY-221 Clinic IV Spring 2018, Students will have to successfully complete a Nutrition Case Presentation with a clinical patient and earn a passing grade using the material learned in this class in order to graduate and this will be measured and added to this report.

Follow-up: (How have you used or how will you use the data to improve student learning?)

This is the fourth time this course had been taught in the Dental Hygiene Program at HCC. The first year it was 100% face to face in one four-hour lecture session on Monday afternoons. The second, third, and fourth year (this cycle), the class was presented as a hybrid with 50% face to face in a 2 hour lecture session on Monday afternoons and the other 50% of content being delivered online via writing assignments, Moodle quizzes and online discussion posts. The hybrid format will likely be used again next year. It was altered in year three by utilizing the online quizzes as study material with no point values and exam point values were increased in order to prevent online material from outweighing actual exams which worked well and was continued again this year. An updated course text was utilized to reflect newer, more current material.

The weight of the points for unit exams (57%) and analysis projects (23%), compared to and writing assignments, discussion board posts, and review quizzes projects (15%), were adjusted so that exams are weighted more heavily and final course grade inflation reduced. The lead instructor and program coordinator will continue to meet to review course content for value and rigor. Student feedback will be used to continue to improve the content and quality of the course.

Budget Justification: (What resources are necessary to improve student learning?)

No additional financial resources are needed at this time.