

## Course Outcomes Assessment

**Course/Program Title: DHY 205 Nutrition in Dentistry**

**Date: 5/8/17**

**Course/Program Team: Raychene Michaels, RDH, BS**

### **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 (3 @ 75 points each, 1 @ 38 points)	263 points
Discussion Board Post Sets (7 @ 5 points each)	35 points
Online written assignments (7 @ 10 points each)	70 points
Online Review Question Tests ( 20 @ 10 points each)	200 points
Nutritional Analysis	120 points
Energy Expenditure Project	40 points
Classroom Engagement (3%)	22 points
Attendance (2%)	15 points
<b>Total</b>	<b>765 points</b>

**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% (20/20) of students achieve an average of 75% or higher on all unit exams)**  
**(100% (20/20) of students achieve an average of 80% or higher on online quizzes. 20 online review quizzes were given to 20 students for a total of 400 sets of quiz scores. Less than 1% of scores, 3 out of 400, were below 80%)**  
**(100% (20/20) of students achieve an average of 95% or higher on the two nutritional analysis projects)**

**(100% (20/20) of students achieve an average of 80% or higher on all 7 online writing assignments. 136/140 writing assignments earned a grade of 8 out of 10 or higher)**

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 clinical 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 an 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	20/20 scored <75%	85.4%
Exam #2	20/20 scored <75%	91.4%
Exam #3	20/20 scored <75%	95.4%
Exam #4	20/20 scored <75%	95.0%
Nutritional Analysis	20/20 scored <85%	97.8%
Energy Expenditure Project	20/20 scored <80%	96%

2. DHY-222 Clinic IV Spring 2017, 19/19 students successfully completed a Nutrition Case Presentation with a clinical patient and earned a passing grade of 85% or higher with all unsatisfactory marks removed.

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

This is the second 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 year, this cycle, the class was changed to 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 and Moodle quizzes. The hybrid format will be used again next year.

The weight of the points for unit exams (~34%) and analysis projects (20%), compared to and writing assignments, discussion board posts, and review quizzes projects (40%), must be adjusted so that exams are weighted more heavily and final course grade inflation is reduced. The lead instructor and program coordinator should 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.