

Course Outcomes Guide

Course/Program Title: DHY 113 – General and Oral Pathology

Date: Spring 2019

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Expected Learning Outcomes:

- Recognize and analyze oral lesions, anomalies, variants or conditions through clinical, radiographic and histological findings.
- Report the necessary clinical characteristics when describing an intra-oral or orofacial lesion, anomaly, variant or condition.

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

1. Examinations - Exams are constructed based on material covered during class and also contains board exam content. An exam review is provided prior to each exam which contains questions that have a similar format as the actual exam which helps determine the quality of questions. The exams are worth 100 points each and account for 45% of the student's grade.
2. Comprehensive Final Exam - The final exam is constructed based on material covered during the entire semester and also contains board exam content. The final exam is worth 200 points and accounts for 25% of the student's grade.
3. Quizzes – Five (5) quizzes are given which cover lecture, reading and homework assignments for small sections of material. The quizzes are worth 10 points each and account for 10% of the student's grade.
4. Pathology Journal Project – This project provides an opportunity to practice the technique of developing case study write ups which include developing a differential diagnosis on one (1) patient you encounter in Clinic II and then present your findings to the class. The purpose of this assignment helps to see if the student has established a connection between information received in DHY 113 and observations, descriptions, and documentation of pathological conditions in DHY 111 – Dental Hygiene Clinical II. This project is presented in both a written and visual format and presented via PowerPoint on the assigned date toward the end of the semester. Project instructions, expectations, format and grading criteria, and a sample journal entry are posted on Moodle. This assignment is worth 50 points and accounts for 10% of the student's grade.
5. Weekly Chapter Review Questions - Each student is required to complete a set of questions correlating to each week's topics covered in class. This is designed to strengthen retention of information and reading and study habits to prepare for class, quizzes, and examinations. The weekly chapter review questions are worth 10 points each and account for 5% of the student's grade.

Assignment	Points	Weighted %
Examinations (3 @ 100 points)	300	45%
Comprehensive Final Exam	200	25%
Quizzes (5 @ 10 points each)	50	10%
Pathology Journal Project	50	10%
Weekly Chapter Review Questions (10 @ 10 points)	100	5%
Classroom Engagement	37	5%
Total	737 points	100%

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

1. Examinations - An exam review is provided prior to each exam which contains questions that have a similar format as the actual exam which helps determine the quality of questions. Questions that are also reused from semester to semester are analyzed for clarity based on the number of students who did not answer the question correctly during the previous semester.
Goal – 85% of students achieve a 75% or higher on each exam.
2. Comprehensive Final Exam - An exam review is provided which contains questions that have a similar format as the actual exam which helps determine the quality of questions. Questions that are also reused from semester to semester are analyzed for clarity based on the number of students who did not answer the question correctly during the previous semester.
Goal – 95% of students achieve a 75% or higher on final exam.
3. Quizzes - Questions that are reused from semester to semester are analyzed for clarity based on the number of students who did not answer the question correctly during the previous semester.
Goal – 85% of students achieve a 75% or higher on each quiz.
4. Pathology Journal Project - This project is evaluated using two grading rubrics. The first rubric relates to the written aspect of the project and evaluates the student's content and delivery of the journal entry. The writing portion of the project is worth 20 points of the total 50. The second rubric relates to the visual presentation of the project and evaluates the student's organization and preparedness, content depth and accuracy, non-verbal communication and eye contact, speaking skills, and audience interaction. The visual presentation of the project is worth 30 points of the total 50.
Goal – 90% of students achieve a 75% or higher on this project.
5. Weekly Chapter Review Questions - Questions are taken directly out of the in-class lecture so the student can follow along and have the opportunity to finish the question set in class the same day. Questions that are reused from semester to semester are analyzed for clarity based on the number of students who did not answer the question correctly during the previous semester.
Goal – 95% of students achieve a 75% or higher on each set of review questions.

6. 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.

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

I have chosen to compare data from the four cohorts I have taught.

1. Examinations – Average score and pass rate of 75% or higher analyzed

Average Scores

Cohort	Exam #1	Exam #2	Exam #3	Average %
Spring 2016 (n=20)	90.7%	86.8%	91.7%	89.7%
Spring 2017 (n=18)	93.3%	83.4%	93.6%	90.1%
Spring 2018 (n=19)	95.3%	86.6%	91.8%	91.2%
Spring 2019 (n=16)	98.8%	85.1%	85.4%	89.8%

Pass Rate Analysis – 75% or Above

Cohort	Exam #1	Exam #2	Exam #3	Average Pass Rate
Spring 2016 (n=20)	90%	85%	100%	91.7%
Spring 2017 (n=18)	100%	94.4%	100%	98.1%
Spring 2018 (n=19)	100%	89.5%	94.7%	94.7%
Spring 2019 (n=16)	100%	87.5%	93.8%	93.8%

2. Comprehensive Final Exam – Average score and pass rate of 75% or higher analyzed

Average Score

Cohort	Comprehensive Final Exam
Spring 2016 (n=20)	86.7%
Spring 2017 (n=18)	86.2%
Spring 2018 (n=19)	84.4%
Spring 2019 (n=16)	83.9%

Pass Rate Analysis – 75% or Above

Cohort	Comprehensive Final Exam
Spring 2016 (n=20)	90%
Spring 2017 (n=18)	88.9%
Spring 2018 (n=19)	100%
Spring 2019 (n=16)	100%

3. Quizzes – Percentage of Students Achieving a Pass Rate of 75% or Higher

In the Spring 2016 cohort, this course had seven (7) quizzes, whereas the Spring 2017 cohort and onward had only five (5).

Cohort	Quiz 1	Quiz 2	Quiz 3	Quiz 4	Quiz 5	Quiz 6	Quiz 7	Average %
Spring 2016 (n=20)	100%	80%	95%	100%	80%	70%	55%	82.9%
Spring 2017 (n=18)	100%	94.4%	88.9%	100%	66.7%	N/A	N/A	90%
Spring 2018 (n=19)	100%	78.9%	63.2%	63.2%	63.2%	N/A	N/A	73.7%
Spring 2019 (n=16)	93.8%	93.8%	93.8%	81.3%	43.8%	N/A	N/A	82.6%

4. The Pathology Journal Project Achieving a Pass Rate of 75% or Higher

Cohort	Pathology Journal Project
Spring 2017 (n=18)	94.4%
Spring 2018 (n=19)	94.7%
Spring 2019 (n=16)	100%

5. Weekly Chapter Review Questions – Average Score of the Set of Ten Chapter Review Questions

Cohort	Total Average of Review Question Scores
Spring 2016 (n=20)	95.7%
Spring 2017 (n=18)	95.7%
Spring 2018 (n=19)	94.0%
Spring 2019 (n=19)	91.8%

6. Number of students passing the course with 75% or higher, along with the grade distribution and average.

Cohort	# of Students with 75% or Higher n (%)	Total Class Grade Average %
Spring 2016 (n=20)	20 (100%)	90.3%
Spring 2017 (n=18)	18 (100%)	90.3%
Spring 2018 (n=19)	19 (100%)	89.7%
Spring 2019 (n=16)	15 (93.8%)	88.4%

Grade distribution between cohorts.

Cohort	Letter Grade A n (%)	Letter Grade B n (%)	Letter Grade C n (%)	Letter Grade F n (%)
Spring 2016 (n=20)	11 (55.0%)	9 (45.0%)	0 (0%)	0 (0%)
Spring 2017 (n=18)	12 (66.7%)	6 (33.3%)	0 (0%)	0 (0%)
Spring 2018 (n=19)	10 (52.6%)	9 (47.4%)	0 (0%)	0 (0%)
Spring 2019 (n=16)	12 (75.0%)	3 (18.8%)	0 (0.0%)	1 (6.3%)

Weight of Assignments and Grade Distribution:

The weight of assignments and exams is reviewed each year to ensure points awarded are distributed appropriately and accurately measure student learning. The program grade scale is currently 75%-79% =C, 80%-89%=B and 90%-100%=A. This is not an even distribution and is artificially inflating grades into the A and B range. The program grading scale should be

evaluated and adjusted for a more even scale which would in turn create a more accurate grade distribution in a Bell Curve with A's, B's and C's.

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

Overall, the grades for quizzes, weekly review questions, and examinations are fairly consistent and do not need any adjustment at this time.

Additionally, this was the first time I implemented heavier weights to exams and critical thinking assignments, which did not make a noticeable difference in the distribution of grades. However, I believe the current weights for each category are appropriate. With a new policy on passing all exams with an average of 75% and the comprehensive exam with a 75%, this puts more pressure on the students to stay current with their studies.

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

No additional resources are needed at this point.