| Course Outcomes Guide |
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**Course/Program Title:**  DHY 108 - Head, Neck and Oral Anatomy          **Date:**  Fall 2018

**Course/Program Team:**  Jennifer Suminski and Tiffany Harrison

**Expected Learning Outcomes:**
- Integrate dental terminology and knowledge of anatomy of the face and neck into the clinical practice of the dental patient examination.
- Identify normal dental anatomy, physiology and structures to preclude the ability to identify abnormalities found in the human dentition.
- Integrate the knowledge of anatomy and cell histology of the orofacial structures into the clinical practice of patient examination.
- Identify normal orofacial structures and physiology to preclude the ability to identify abnormalities found in the human dentition.

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

1. Examinations - There are six (6) exams given in the DHY 108 course. Exam 6 is considered the final exam and is not comprehensive. 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 and helps to determine the quality of questions. The exams are worth 100 points each and account for 55% of the student's grade.

2. Quizzes - Seven (7) quizzes are given which cover lecture, reading and homework assignments for small sections of course material. The quizzes are worth 10 points each and account for 15% of the student's grade.

3. Lab OSCE - Six (6) practical Objective Structured Clinical Examinations (OSCE) are given which include timed disassociated tooth, skull bone, blood vessel, nerve, and muscle identification. The OSCEs are worth 25 points each and account for 10% of the student's grade.

4. Review Questions and Review Packets - Each student is required to complete review questions or review packet assignments 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 lectures, quizzes, and examinations. The review question and review packet assignments are worth 10 points each and account for a combined 10% of the student's grade.

5. Oral Anomaly Presentation - Students are paired in a two-person team and work together to develop an oral anomaly research presentation. This presentation is designed to prepare students in providing patient education in the clinic setting on variants of normal

oral pathology. This assignment is worth 50 points and account for 5% of the student's grade.

| Assignment | Points | Weighted % |
|---|---|---|
| Lecture Exams (6 @ 100 points each) | 600 | 55% |
| Quizzes (7 @ 10 points each) | 70 | 15% |
| Lab OSCE (6 @ 25 points each) | 150 | 10% |
| Review Packets (10 @ 10 points each) | 100 | 5% |
| Review Questions (8 @ 10 points each) | 80 | 5% |
| Oral Anomaly Presentation | 50 | 5% |
| Classroom/Lab Engagement | 62 | 5% |
| **Total** | **1112** | **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 and helps to 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 an average of 75% or higher on exams.**

2. 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 an average of 75% or higher on quizzes.**

3. Review Questions and Review Packets – Review question and review packets are taken directly out of the in-class lecture so during the lab portion of this course, the student has an opportunity to finish the assignment in class the same day. Review question and review packet exercises 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 an average of 75% or higher on review questions.**

4. Oral Anomaly Presentation - This presentation is graded using a rubric which relates to visual presentation of the project and evaluates the team's organization and preparedness, content depth and accuracy, non-verbal communication and eye contact, speaking skills, and audience interaction.
   **Goal – 90% of students achieve an average of 75% or higher on this project.**

5. 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**

| Exams | Fall 2015 Average (n=20) | Fall 2016 Average (n=19) | Fall 2017 Average (n=20) |
|---|---|---|---|
| Exam #1 | 95.4% | 92.0% | 88.4% |
| Exam #2 | 89.3% | 94.7% | 91.2% |
| Exam #3 | 90.0% | 90.6% | 86.5% |
| Exam #4 | 92.4% | 94.7% | 94.1% |
| Exam #5 | 95.0% | 92.3% | 95.9% |
| Exam #6 | 97.3% | 94.0% | 91.9% |
| Exam #7 | 95.4% | 95.3% | 96.4% |
| **Total Average** | **93.5%** | **93.4%** | **92.1%** |

| Exams | Fall 2018 Average (n=20) | Fall 2019 Average (n=20) | Fall 2020 Average (n=20) |
|---|---|---|---|
| Exam #1 | 88.6% | | |
| Exam #2 | 93.7% | | |
| Exam #3 | 88.9% | | |
| Exam #4 | 90.4% | | |
| Exam #5 | 92.3% | | |
| Exam #6 | 90.5% | | |
| Exam #7 | N/A | | |
| **Total Average** | **90.7%** | | |

**Pass Rate Analysis – 75% or above**

| Exams | Fall 2015 Cohort (n=20) | Fall 2016 Cohort (n=19) | Fall 2017 Cohort (n=20) |
|---|---|---|---|
| Exam #1 | 100% | 100% | 100% |
| Exam #2 | 100% | 100% | 100% |
| Exam #3 | 100% | 100% | 90% |
| Exam #4 | 100% | 100% | 100% |
| Exam #5 | 100% | 100% | 100% |
| Exam #6 | 100% | 100% | 100% |
| Exam #7 | 100% | 100% | 100% |
| **Average Pass Rate** | **100%** | **100%** | **98.6%** |

| Exams | Fall 2018 Average (n=20) | Fall 2019 Average (n=20) | Fall 2020 Average (n=20) |
|---|---|---|---|
| Exam #1 | 90% | | |
| Exam #2 | 100% | | |
| Exam #3 | 90% | | |
| Exam #4 | 95% | | |
| Exam #5 | 100% | | |

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|---|---|---|---|
| Exam #6 | 95% | | |
| Exam #7 | N/A | | |
| **Total Average** | **95%** | | |

2. OSCE – Average score and pass rate of 75% or higher analyzed

**Average Scores**

| OSCE | Fall 2015 Average (n=20) | Fall 2016 Average (n=19) | Fall 2017 Average (n=20) |
|---|---|---|---|
| OSCE #1 | 95.4% | 97.2% | 93.8% |
| OSCE #2 | 88.5% | 90.1% | 95.8% |
| OSCE #3 | 96.7% | 96.3% | 98.8% |
| OSCE #4 | N/A | N/A | 91.7% |
| OSCE #5 | N/A | N/A | 89.7% |
| OSCE #6 | N/A | N/A | 89.4% |
| **Total Average** | **93.5%** | **94.5%** | **93.2%** |

| OSCE | Fall 2018 Average (n=20) | Fall 2019 Average (n=19) | Fall 2020 Average (n=20) |
|---|---|---|---|
| OSCE #1 | 91.3% | | |
| OSCE #2 | 87.1% | | |
| OSCE #3 | 95.4% | | |
| OSCE #4 | 88.8% | | |
| OSCE #5 | 91.0% | | |
| OSCE #6 | 73.8% | | |
| **Total Average** | **87.9%** | | |

**Pass Rate Analysis – 75% or above**

| OSCE | Fall 2015 Cohort (n=20) | Fall 2016 Cohort (n=19) | Fall 2017 Cohort (n=20) |
|---|---|---|---|
| OSCE #1 | 90% | 100% | 90% |
| OSCE #2 | 65% | 89.5% | 100% |
| OSCE #3 | 95% | 94.8% | 100% |
| OSCE #4 | N/A | N/A | 100% |
| OSCE #5 | N/A | N/A | 100% |
| OSCE #6 | N/A | N/A | 95% |
| **Average Pass Rate** | **83.3%** | **94.8%** | **97.5%** |

| OSCE | Fall 2018 Average (n=20) | Fall 2019 Average (n=19) | Fall 2020 Average (n=20) |
|---|---|---|---|
| OSCE #1 | 95% | | |
| OSCE #2 | 90% | | |
| OSCE #3 | 100% | | |
| OSCE #4 | 85% | | |
| OSCE #5 | 100% | | |
| OSCE #6 | 48% | | |

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|---|---|---|---|
| **Total Average** | **86.3%** | | |

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

### Course Pass Rate Analysis

| Cohort | # of Students with 75% or Higher<br>n (%) | Total Class Grade Average<br>% |
|---|---|---|
| **Fall 2015**<br>(n=20) | 100% | 94.3% |
| **Fall 2016**<br>(n=19) | 94.7% | 94.2% |
| **Fall 2017**<br>(n=20) | 100% | 93.2% |
| **Fall 2018**<br>(n=20) | 100% | 90.9% |

### Grade Distribution

| Cohort | Letter Grade A<br>n (%) | Letter Grade B<br>n (%) | Letter Grade C<br>n (%) | Letter Grade F<br>n (%) |
|---|---|---|---|---|
| **Fall 2015**<br>(n=20) | 17 (85%) | 3 (15%) | 0 (0%) | 0 (0%) |
| **Fall 2016**<br>(n=19) | 17 (85%) | 2 (10%) | 0 (0%) | 1 (5%) |
| **Fall 2017**<br>(n=20) | 16 (80%) | 4 (20%) | 0 (0%) | 0 (0%) |
| **Fall 2018**<br>(n=20) | 13 (65%) | 6 (30%) | 1 (5%) | 0 (0%) |

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

This is the fourth time I have been a lead instructor for this course and I have continually addressed design and implementation weaknesses from previous semesters. This is the first semester that this course was offered as a hybrid course. This presented some course design challenges with regard to how information would be delivered and how students would be assessed for retention of the information provided. Assessments, specifically OSCEs, in some instances were lower than in previous semesters which I have attributed to this course design change.

Overall, the grades on exams have been fairly consistent throughout the last four cohorts.

Grade distribution throughout the three semesters has stayed relatively constant with very little attrition rate.

I plan to provide more online lectures, discussion forums, and conceptual exercises related to patient care in the future, but because this course had no teaching evaluation, I did ask students for anonymous feedback on my own regarding this course. I will modify the course based on that feedback, this SLOA data, and other challenges I have identified throughout the Fall 2018 semester.

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

I would like to request funds for six head and neck anatomy models (which show muscles, blood vessels, nerves, and glands) to have students learn in small groups in lab.