Maui Community College
Course Outline

1. Alpha DENT Number 165

   Course Title Oral Biology II

   Credits 2

   Department Allied Health Author

   Date of Outline 2/5/09 Effective Date Spring 2010 5-year Review Date Spring 2015

2. Course Description: Discussion of the embryologic development of the structures and tissues of the head, neck, teeth and oral cavity; histology of the hard and soft tissues of the oral cavity. Development of the structural defects involving the oral cavity and the teeth. Includes the normal periodontal tissues, oral mucous membranes, and salivary glands.

   Cross-list

   Contact Hours/Type Lecture/Lab - four (4)

3. Pre-requisites DENT 164 with C or better

   Pre-requisite may be waived by consent ☒ yes ☐ no

   Co-requisites DENT 152, DENT 154, DENT 177

   Recommended Preparation none

4. Function/Designation ☐ AA Category Additional Category

   `☒ AS Allied Health - Dental Hygiene Category List Additional Programs and Category:

   ☐ AAS Program Category List Additional Programs and Category:

   ☐ BAS Program Category ☐ Developmental/Remedial

   ☐ Other/Additional: Explain:

_____ _____

Chancellor *Approval Date*

See Curriculum Action Request (CAR) form for the college-wide general education and/or program SLOS this course supports.

☐ This course outline is standardized and/or the result of a community college or system-wide agreement. Responsible committee:

5. Student Learning Outcomes (SLOs): List one to four inclusive SLOs.
   For assessment, link these to #7. Recommended Course Content, and #9. Recommended Course Requirements & Evaluation. Use roman numerals (I., II. III.) to designate SLOs
   On successful completion of this course, students will be able to:

   I. Differentiate and identify normal and abnormal oral structures, common abnormalities, and infections.
   II. Demonstrate an understanding of the transmission process and control of infective and contagious diseases.
   III. Identify and demonstrate an understanding of the pharmacology of local anesthetic solutions, analgesic gases and psychosedatives, and antibiotic agents.
   IV. Prepare for successful completion of the Dental Assisting National Board Certification Exam (DANB).

6. Competencies/Concepts/Issues/Skills
   For assessment, link these to #7. Recommended Course Content, and #9. Recommended Course Requirements & Evaluation. Use lower case letters (a., b., c…n.)to designate competencies/skills/issues
   On successful completion of this course, students will be able to:

   a. Define the terminology used in naming the landmarks of the teeth.
   b. Evaluate the importance of the shape of the teeth in regards to their fundamental and preventive curvatures.
   c. Describe microscopic features of enamel, dentin, cementum, and pulp.
   d. List the functions of the pulp.
   e. Demonstrate a knowledge of the normal pulpal anatomy and morphology of all the teeth in the deciduous and permanent dentition.
   f. Differentiate the systems used to code teeth.
   g. List the eruption schedules of the teeth.
   h. Describe an understanding of occlusion and identify the three occlusal classifications.
   i. Define the various anomalies of teeth.
   j. Describe the bones of the skull with emphasis on the maxilla and mandible.
   k. Identify the bones that compose the face and skull, their characteristic features, and the related structures these bones form.
   l. Distinguish between the paired and single bones.
   m. Describe the function, characteristics of, and identify anatomical structures of the face, lips, oral cavity, oral vestibule, pharynx, hard and soft palate, sublingual area, tongue, and gingiva.
   n. Explain the origin, insertion, and action of each of the muscles of mastication, suprahyoid and infrahyoid muscles, and the muscles of the face, lips, tongue, and pharynx.
   o. Summarize the components of the temperomandibular joint using correct definitions and terms.
   p. Explain how the TMJ structures interrelate with each other during movement of the mandible.
   q. Discuss TMJ dysfunction and treatment.

r. Interpret the anatomic features of the salivary gland, the properties and functions of saliva, and the stimuli which activate salivary flow.
s. List and describe common developmental defects involving non-dental oral structures and defects involving the oral structures and teeth.
t. List the most common oral and dental infections and describe their course, treatment, and resolution.
u. Describe and define the process of inflammation, regeneration, repair, and healing.
v. Describe basic pharmacology of selected local anesthetic solutions, analgesic gases, psychosedatives, and antibiotic agents.
w. Describe the process and stages of tooth development.
x. Describe the maturation of the hard dental tissues.
y. Describe and define the development of the gingiva, epithelial attachment, periodontal ligament and alveolar bone.
z. Describe the introductory principles of oral pathology.
aa. List and describe the diagnostic tools used in oral pathology.

7. Suggested Course Content and Approximate Time Spent on Each Topic
Linked to #5. Student Learning Outcomes and # 6 Competencies/Skills/Issues

2 weeks Maturation of the hard dental tissues including landmarks of teeth and systems for coding teeth; microscopic features of enamel, dentin, cementum, and pulp; eruption schedules of the teeth (I, IV, a, c, d, e, f, g, i, w, x)
2 week Head and neck anatomy including bones of the face and skull, the TMJ, and other structures of the oral cavity (I, IV, j, k, l, m, n, o, p, q, r)
1 week Development of the gingiva, epithelial attachment, periodontal ligament, and alveolar bone (I, IV, y)
3 weeks Introduction to the principles of oral pathology; process associated with the development of abnormalities and defects in the oral and dental structures including fundamental and preventive curvatures; and occlusal classifications (I, IV, b, h, i, s, z)
3 weeks Inflammation, repair, regeneration, healing; dental infections including course, treatment, and resolution (I, II, IV, s, t, u)
2 weeks Basic pharmacology of selected local anesthetic solutions, analgesic gases, psychosedatives, and antibiotic agents (III, IV, v)
2 weeks Diagnostic tools in oral pathology (I, II, IV, t, z, aa)

8. Text and Materials, Reference Materials, and Auxiliary Materials
Appropriate text(s) and materials will be chosen at the time the course is offered from those currently available in the field. Examples include: Bird, D. and Robinson, D., Torres and Ehrlich Modern Dental Assisting, current edition, Elsevier.

Bird, D. and Robinson, D., Student Workbook to Accompany Torres and Ehrlich Modern Dental Assisting, current edition, Elsevier.

Appropriate reference materials will be chosen at the time the course is offered from those currently available in the field. Examples include: Brand, R. and Isselhard, D., Anatomy of Orofacial Structures, current edition, Elsevier.

Massler, M. and Schour, I., Atlas of the Mouth, current edition, American Dental Association.

Durley, C. et al., The DANB Review, current edition, Dental Assisting National Board.

Durley, C. et al., DANB's Glossary of Dental Assisting Terms, current edition, Dental Assisting National Board.

Miller, B. et al., Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing and Allied Health, current edition, Elsevier.

Mosby et al., Mosby's Dental Dictionary, current edition, Elsevier.

Mosby et al., Review Questions and Answers for Dental Assisting, current edition, Elsevier.

Appropriate auxiliary materials will be chosen at the time the course is offered from those currently available in the field. Examples include: State of Hawaii Department of Commerce and Consumer Affairs, Hawaii Administrative Rules Title 16, Chapter 79, Dentists and Dental Hygienists.

State of Hawaii Department of Commerce and Consumer Affairs, Hawaii Revised Statutes Chapter 448, Dentistry.

9. Suggested Course Requirements and Evaluation
Linked to #5. Student Learning Outcomes (SLOs) and #6 Competencies/Skills/Issues
Specific course requirements are at the discretion of the instructor at the time the course is being offered. Suggested requirements might include, but are not limited to:

- Prompt attendance is required at all class sessions. (I, II, III, IV, a - aa)
- Students will be responsible for completing all assigned reading material in text before each class session. (I, II, III, IV, a - aa)
- Complete various learning skills exercises. (I, II, III, IV, a - aa)
- Complete various laboratory exercises. (I, II, III, IV, a - aa)
- Complete all projects. (I, II, III, IV, a - aa)

EVALUATION AND GRADING

Weekly quizzes	25 - 35% (I, II, III, IV, a - aa)
Midterm	20 - 30% (I, II, III, IV, a - aa)
Lab assignments	20 - 30% (I, II, III, IV, a - aa)
Final exam	25 - 35% (I, II, III, IV, a - aa)
Attendance/ Attitude	10% (I, II, III, IV, a - aa)

10. Methods of Instruction
Instructional methods will vary considerably by instructor. Specific methods are at the discretion of the instructor teaching the course and might include, but are not limited to:

- Participation in class lecture/ discussion.
- Reading assigned portions in textbooks, journal articles, and/ or modules.
- Viewing various audiovisual materials.
- Participation in class exercises such as role-plays and simulations.
- Demonstration and simulation.

- Discovery learning.
- Group projects.

11. Assessment of Intended Student Learning Outcomes Standards Grid attached