

# Washtenaw Community College Comprehensive Report

## DEN 106 Biomedical Science for Dental Assistants Effective Term: Winter 2017

### Course Cover

**Division:** Health Sciences

**Department:** Allied Health

**Discipline:** Dental Assisting

**Course Number:** 106

**Org Number:** 15100

**Full Course Title:** Biomedical Science for Dental Assistants

**Transcript Title:** Biomedical Science

**Is Consultation with other department(s) required:** No

**Publish in the Following:** College Catalog , Time Schedule , Web Page

**Reason for Submission:** Course Change

**Change Information:**

**Course description**

**Outcomes/Assessment**

**Objectives/Evaluation**

**Rationale:** Through course assessment, it was determined that more understanding and comprehension was needed by students to be successful in the field. Assessment will be related to understanding and application of outcomes rather than simple identification of material.

**Proposed Start Semester:** Winter 2017

**Course Description:** In this course, students cover the formation and eruption of the teeth and craniofacial growth and development. Topics such as cell, tissue and organ development and systems of the body will be examined. Types and uses of local and general anesthesia and medical emergency and appropriate response will be discussed.

### Course Credit Hours

**Variable hours:** No

**Credits:** 2

**Lecture Hours: Instructor:** 30 **Student:** 30

**Lab: Instructor:** 0 **Student:** 0

**Clinical: Instructor:** 0 **Student:** 0

**Total Contact Hours: Instructor:** 30 **Student:** 30

**Repeatable for Credit:** NO

**Grading Methods:** Letter Grades

Audit

**Are lectures, labs, or clinicals offered as separate sections?:** NO (same sections)

### College-Level Reading and Writing

College-level Reading & Writing

### College-Level Math

### Requisites

**Prerequisite**

Admission to Dental Assisting program

**General Education****Request Course Transfer**

**Proposed For:**

**Student Learning Outcomes**

1. Identify and discuss concepts and principles related to the formation and eruption of teeth and craniofacial development.

**Assessment 1**

Assessment Tool: Course Project

Assessment Date: Winter 2018

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: departmentally-developed rubric

Standard of success to be used for this assessment: 90% of the students will score 79% or higher.

Who will score and analyze the data: Department Faculty

**Assessment 2**

Assessment Tool: departmental exam

Assessment Date: Winter 2018

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Answer key and scoring rubric

Standard of success to be used for this assessment: At least 80% of students will answer each item correctly and receive at least 80% overall.

Who will score and analyze the data: Department Faculty

2. Identify and discuss concepts and principles related to systems of the body.

**Assessment 1**

Assessment Tool: departmental exam

Assessment Date: Winter 2018

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Answer key and rubric

Standard of success to be used for this assessment: At least 80% of students will answer each item correctly and receive at least 80% overall.

Who will score and analyze the data: Department faculty

3. Identify and discuss concepts and principles related to local and general anesthesia.

#### **Assessment 1**

Assessment Tool: departmental exam

Assessment Date: Winter 2018

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Answer key and rubric

Standard of success to be used for this assessment: At least 80% of students will answer each item correctly and receive at least 80% overall.

Who will score and analyze the data: Department Faculty

#### **Course Objectives**

1. Identify and discuss processes in the formation, development, and eruption of primary teeth.
2. Identify and discuss processes in the formation, development, and eruption of permanent teeth.
3. Identify and discuss processes in the formation and development of oral tissues.
4. Recognize and apply terms related to cell, tissue, organ and system development.
5. Describe the relationship of various body systems to oral health.
6. Recognize and apply terms related to nerves: receptor, sensory fiber, somatic afferent/efferent, visual afferent/efferent.
7. Identify and discuss components of the nervous system and the functions of each.
8. Identify and discuss divisions and branches of the trigeminal nerve.
9. Recognize and apply terms associated with pain and anesthesia.
10. Identify and discuss methods for controlling pain.
11. Identify and discuss the types and uses of anesthesia in dentistry.
12. Identify and discuss components and agents of both local and general anesthesia.
13. Identify and discuss the stages of general anesthesia.
14. Compare the risks and complications of both local and general anesthesia.
15. Identify and discuss the properties and actions of conscious sedation.
16. Identify and discuss the risks and complications of conscious sedation.
17. Identify and discuss techniques for anesthetic injections in the oral cavity.
18. Identify and discuss common medical emergencies experienced in a dental setting.

#### **New Resources for Course**

#### **Course Textbooks/Resources**

##### Textbooks

Robinson and Bird. *Modern Dental Assisting*, 11th ed. Elsevier, 2015

##### Manuals

##### Periodicals

##### Software

#### **Equipment/Facilities**

<b><u>Reviewer</u></b>	<b><u>Action</u></b>	<b><u>Date</u></b>
<b>Faculty Preparer:</b> <i>Kristina Sprague</i>	<i>Faculty Preparer</i>	<i>May 23, 2016</i>
<b>Department Chair/Area Director:</b> <i>Connie Foster</i>	<i>Recommend Approval</i>	<i>May 24, 2016</i>
<b>Dean:</b> <i>Valerie Greaves</i>	<i>Recommend Approval</i>	<i>May 25, 2016</i>
<b>Curriculum Committee Chair:</b> <i>David Wooten</i>	<i>Recommend Approval</i>	<i>Aug 02, 2016</i>
<b>Assessment Committee Chair:</b> <i>Michelle Garey</i>	<i>Recommend Approval</i>	<i>Aug 03, 2016</i>
<b>Vice President for Instruction:</b> <i>Michael Nealon</i>	<i>Approve</i>	<i>Aug 17, 2016</i>