BIOMEDICAL SCIENCES FOR THE DENTAL ASSISTANT
Course Syllabus

Course Number: PDA-0109
OCAS Code: None
Course Length: 75 Hours
Career Cluster: Health Science
Career Pathway: Therapeutic Sciences
Career Major(s): Professional Dental Assistant

Pre-requisite(s):

Course Description: The biomedical sciences course is designed to provide a basic understanding of body function and structure, concepts of diseases and dietary considerations for the student as well as the patient. Included areas of study are general anatomy and physiology, microbiology with the focus on dental worker and patient safety through the study of bloodborne pathogens and hazardous communications.

Textbooks:

Online Components:
http://evolve.elsevier.com/staticPages/s_index.html, Interactive Web Site, Sanders Elsevier
http://tulsatech.blackboard.com/

Software:
Eaglesoft 17.0 Dental Practice Management Software

Course Objectives:

A. Describe basic knowledge of body structure and function.¹
   1. Recognize the body systems primary organs.
   2. Describe the basic functions of the body systems.
   3. Recognize common diseases and injuries for each body system.

B. Microbiology
   1. Describe the chain of infection and modes of disease transmission.
   2. Describe the role microbes in the chain of infection as it relates to the dental personnel and patients.¹
   3. Describe the common organisms that impact the care and treatment of the dental patient.²

C. Describe hazardous communication standards.¹

D. Nutrition & Dietary Counseling

¹ Course Objectives have been identified for Career Technical Education (CTE) applications.
² Course Objectives have been identified for Health Science applications.
1. Discuss the impact of nutrition on the development and care of the teeth.
2. Discuss the role of nutrition in preventive dentistry, including giving examples of cariogenic and noncariogenic foods.
3. Describe dietary considerations for the dental patient.
4. Discuss the dietary limitations for orthodontic patients, patients with injured anterior teeth, and patients with new dentures.
5. Demonstrate dietary planning for a patient on a soft diet.
6. Demonstrate dietary counseling skills to patients.\(^1\)

E. The student will demonstrate employability skills, including dependability, patient/client centered behavior, self-motivation-initiative, positive attitude, and adherence to policies.

\(^1\) ODCTE Objective
All unmarked objectives are TTC instructor developed.

**Teaching Methods:**
The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.

**Grading Procedures:**
1. Students are graded on theory and lab practice and performance.
2. Each course must be passed with seventy (70\%) percent or better.
3. Grading scale: A=90-100\%, B=80-89\%, C=70-79\%, D=60-69\%, F=50-59\%.

**Description of Classroom, Laboratories, and Equipment:**
Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

**Available Certifications/College Credit**
The student may be eligible to take state, national or industry exam after completion of the program. Tulsa Tech students may be able to earn college credit based on their knowledge gained at Tech. The process of earning credit through Prior Learning Assessment (PLA) will be determined after completion with Tech and based on certification, credential or knowledge of the subject. See program counselor for additional information.

**College Credit Eligibility:**
The student must maintain a grade point average of 3.0 or better.