COURSE TITLE & NUMBER: Dental Science: DAS1520
CREDITS: 2 (2 Lec/0 Lab)
PREREQUISITES: None

CATALOG DESCRIPTION:
Dental Science introduces applied psychology and its relationship to the dental office. This course also prepares the dental assistant to deal with medical and dental emergencies. Pharmacology is included to help students better understand the medications used in dentistry.

OUTLINE OF MAJOR CONTENT AREAS:
1. Psychological well-being
   A. Psychotic behavior
   B. Neurotic behavior
   C. Normal behavior
2. Maslow’s hierarchy of needs
   A. Physiological needs
   B. Safety needs
   C. Social or love needs
   D. Esteem needs
   E. Self-actualization
3. Understanding patient behavior
   A. Background factors
   B. Fear
   C. Emotional elements
   D. Patient responses
   E. Stress
4. Defense mechanisms
   A. Repression
   B. Rationalization
   C. Procrastination
   D. Deployment
   E. Affiliation
   F. Control of the situation
   G. Rehearsal
5. Effects of medical health on dental care
   A. Systemic diseases- symptoms and treatment
      1. Cancer patients
      2. Heart conditions
         a. Arteriosclerosis
         b. Athlersclerosis
c. Heart murmur
d. Angina pectoris
e. Myocardial infarction
f. Congestive heart failure

3. Diabetic conditions
   a. Hyperglycemia
   b. Hypoglycemia
c. Diabetes mellitus
d. Insulin shock

B. Other medical conditions
   1. Syncope
   2. Anaphylactic shock
   3. Seizure disorders
   4. Tuberculosis
   5. Sexually transmitted diseases
   6. AIDS/Hepatitis B Virus (HBV)
   7. Asthma
   8. Hyperventilation
   9. Syncope
   10. Airway obstruction
       a. Heimlich technique
       b. Cricothyrotomy
   11. Stroke/Cerebrovascular accident

C. Routine for medical emergencies
   1. Office policies / chain of command
   2. Oxygen/Emergency kit
   3. Basic life support (cardiopulmonary resuscitation)
   4. Legal problems
   5. Documentation of an emergency

D. Diagnostic signs
   1. Vitals
       a. Pulse
       b. Blood pressure
c. Respiration rate
d. Temperature
   2. Breath odors

E. Other dental emergencies
   1. Abscess
   2. Avulsed tooth
   3. Fractured tooth/loose filling or crown
   4. Lost temporary restoration
   5. Alveolitis (dry socket)
   6. Broken prosthesis
   7. Broken orthodontic appliance

6. Pharmacology
   A. Controlled Substances Act
B. Prescription writing  
C. Drug actions, interactions, reactions and effects  
D. Substance abuse  
E. Routes for administration of drugs  
F. Drugs used in dentistry  
    1. Analgesics  
    2. Antibiotics  
    3. Tranquilizers  
       a. Antianxiety agents  
       b. Sedatives and hypnotics  
    4. Antihistamines  
    5. Antifungal agents  
    6. Antiviral agents  
    7. Vasoconstrictors and topical hemostatic agents  
    8. Local and topical anesthetics  
    9. Analgesia and anesthesia  

COURSE GOALS/OBJECTIVES/OUTCOMES:  
1. Students will define basic concepts of psychology and identify normal/abnormal behavior especially relating to the dental field.  
2. Students will identify medical emergencies, emergency treatments, drugs, equipment, protocol, and emergency prevention.  
3. Students will demonstrate taking vital signs.  
4. Students will identify controlled substance schedules, prescription writing, and drug administration routes.  
5. Students will identify the different types of pharmaceutical drugs.  

MNTC GOALS AND COMPETENCIES MET:  
N/A  

HCC COMPETENCIES MET:  
Working Productively & Cooperatively  
Communicating Clearly & Effectively  
Thinking Creatively & Critically  
Social/Civic Responsibility  

STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.  

Curriculum Committee Approval Date: May 1, 2018  
AASC APPROVAL DATE: May 9, 2018  
REVIEW DATE: May 2023