

HIBBING COMMUNITY COLLEGE COURSE OUTLINE

COURSE NUMBER & TITLE: DAS1520: Dental Science

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:

- I. Psychological well-being
 - A. Psychotic behavior
 - B. Neurotic behavior
 - C. Normal behavior
- II. Maslow's hierarchy of needs
 - A. Physiological needs
 - B. Safety needs
 - C. Social or love needs
 - D. Esteem needs
 - E. Self-actualization
- III. Understanding patient behavior
 - A. Background factors
 - B. Fear
 - C. Emotional elements
 - D. Patient responses
 - E. Stress
- IV. Defense mechanisms
 - A. Repression
 - B. Rationalization
 - C. Procrastination
 - D. Deployment
 - E. Affiliation
 - F. Control of the situation
 - G. Rehearsal

- V. 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
- VI. 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:

Students will

1. define basic concepts of psychology.
2. describe Maslow's Hierarchy of Needs.
3. identify normal/abnormal behavior.
4. discuss dental office behavior.
5. discuss trust building.
6. identify basic psychology terms.
7. discuss emergency prevention.
8. identify medical emergencies.
9. state medical emergency treatment.
10. identify emergency drugs and equipment.
11. demonstrate taking vital signs.
12. list qualifications needed for emergencies.
13. demonstrate emergency drills.
14. identify dental emergencies.
15. identify controlled substance schedules.
16. describe prescription writing.
17. state drug administration routes.
18. identify antibiotics.
19. identify antianxiety agents.
20. identify analgesics, mild/ strong.

- 21. identify antifungal agents
- 22. list antiviral agents
- 23. identify anesthetics, topical/ local/ general.
- 24. identify analgesia, nitrous oxide.

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.**

**SPECIAL INFORMATION: (SPECIAL FEES, DIRECTIVES ON HAZARDOUS
MATERIALS, ETC.)**

AASC APPROVAL DATE: September 17, 2014

REVIEW DATE: September 2019

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