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Dental Hygiene (DNLT) 1512 Head and Neck Anatomy (3 Units) CSU  
[formerly Dental Hygiene 12]

Prerequisite: Acceptance into Dental Hygiene Program and successful completion of Biology 2250, and 2257 with a grade of “C” or better

Prerequisite knowledge/skills:

Before entering the course, the student should be able to:

1. identify and explain the function of the major structural components of the human body at microscopic and macroscopic levels,
2. demonstrate the skill of careful dissection,
3. compare and contrast human and cat anatomy,
4. demonstrate the construction of a correctly spelled list of 200 human surface anatomy features,
5. explain the general function of the human body systems,
6. explain basic facts of physical and chemical principles of physiology,
7. employ the scientific method, and
8. move on to more advanced work in physiology and related fields.

Total Hours: 48 hours lecture

Catalog Description: This course studies the anatomical structures of the head and neck regions and relates these structures to the clinical practice of dental hygiene.

Type of Class/Course: Degree Credit

Text:

Fehrenbach, Margaret, and Susan Herring. *Illustrated Anatomy of the Head and Neck*. 5th ed. Philadelphia: Saunders, 2016. Print.

Additional Instructional Materials:

Additional Required Materials: None

Course Objectives:

By the end of the course, a successful student will be able to:

1. define and pronounce anatomical key terms of the head and neck,
2. locate and identify the anatomical structures of the head and neck,
3. apply correct anatomic nomenclature during dental clinical procedures
4. describe the skeletal landmarks of the mandible and maxilla,
5. discuss the process of mastication, speech and swallowing,
6. describe the movements of the TMJ and their relationship with muscles of the head and neck,
7. discuss the innervations of each cranial nerve,
8. identify and trace the routes of the nerves to the oral cavity and associated structures of the head and neck,
9. list the tissue and structures anesthetized by each type of injection and locate target areas,
10. discuss the symptoms and complications of local anesthesia of the oral cavity,
11. locate and identify the lymph nodes of the head and neck and identify their drainage patterns,
12. locate and identify the fascia and major spaces of the head and neck,
13. discuss the spread, complications and prevention of odontogenic infections,
14. integrate an understanding of surface anatomy, the skeletal system, the muscular system, vascular system, nervous system and glandular systems into the clinical practice of dental procedures, and
15. discuss the pathology and related care associated with all body systems including the TMJ, local anesthesia, fascia and space

Course Scope and Content:

Unit I Introduction to Head and Neck Anatomy

- A. Anatomic nomenclature
- B. Normal anatomic variation
- C. Surface anatomy

Unit II Systems of the Human Body

- A. Skeletal System – Bones of the Head and Neck
- B. Muscular System – Muscles of the Head and Neck
- C. Vascular System – Arterial Supply and Venous Drainage of the Head and Neck
- D. Nervous System – Nerves to the Oral Cavity and their Associated Structures
- E. Lymphatic System – Lymphatic System of the Head and Neck to Include Tonsils

Unit III The Temporomandibular Joint

- A. Bones of the TMJ
- B. Joint Capsule
- C. Disc of the Joint
- D. Ligaments associated with Joint

E. Jaw Movement with Muscle Relationships

Unit IV Glandular Tissue

- A. Lacrimal Glands
- B. Salivary Glands
- C. Thyroid Gland
- D. Parathyroid Gland
- E. Thymus Gland

Unit V Anatomy of Local Anesthesia

- A. Anatomic Considerations
- B. Maxillary Anesthesia
- C. Mandibular Anesthesia

Unit VI Fascia and Spaces of the Head and Neck

- A. Superficial Fascia of Face and Neck
- B. Deep Fascia of Face and Jaws
- C. Deep Cervical Fascia
- D. Spaces of the Head and Neck

Unit VII Spread of Infection

- A. The Infectious Process
- B. Odontogenic Infection
- C. Infection Resistance Factors
- D. Spread of Infection
- E. Prevention of Spread of Infection

Learning Activities Required Outside of Class:

The students in this class will spend a minimum of 6 hours per week outside of the regular class time doing the following:

1. Independent reading and studying
2. Independent research
3. Anatomic diagrams
4. Completion of written assignments

Methods of Instruction:

1. Lecture
2. Class discussions
3. Audio-visual presentations
4. Learning activities using human skulls
5. Web-based presentations
6. Power Point

Methods of Evaluation:

1. Examinations and quizzes, including:
  - a. multiple choice questions
  - b. matching questions
  - c. true /false questions
  - d. practical demonstration
  - e. label
  - f. case study questions

Supplemental Data:

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|---------------------------------|---|
| TOP Code:                       | 124020: Dental Hygienist  |
| SAM Priority Code:              | C: Clearly Occupational   |
| Distance Education:             | Not Applicable  |
| Funding Agency:                 | Y: Not Applicable(funds not used)                                 |
| Program Status:                 | 1: Program Applicable   |
| Noncredit Category:             | Y: Not Applicable, Credit Course                                  |
| Special Class Status:           | N: Course is not a special class                                  |
| Basic Skills Status:            | N: Course is not a basic skills course                            |
| Prior to College Level:         | Y: Not applicable   |
| Cooperative Work Experience:    | N: Is not part of a cooperative work experience education program |
| Eligible for Credit by Exam:    | NO  |
| Eligible for Pass/No Pass:      | NO  |
| Taft College General Education: | NONE  |