I. CATALOG DESCRIPTION:

This course provides the student with actual clinical experience in four-handed, sit-down dentistry. Through supervised clinical practice in our on campus clinic an opportunity for developing competence and confidence in the utilization of dental assisting knowledge and skills will be provided to the student. Competence in expanded functions allowed in Illinois will also be developed by the student.

II. EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

1. Demonstrate a basic understanding of asepsis as it relates to dental instruments, procedures, and operatory equipment and surfaces.
   1.1 Discuss the term “chain of asepsis” and the importance of using standard precautions beginning with the steps and performance of a proper hand washing technique.
   1.2 Describe and demonstrate the method for donning and removing barrier attire.
   1.3 Explain the importance and demonstrate the use of the ultrasonic cleaner.
   1.4 Demonstrate the procedure for preparing and using the autoclave, StatIM, and chemclave.
   1.5 Discuss and demonstrate methods for clean-up and disposal of wastes, including the handling of sharps and disposal of infectious wastes.
II. EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES: (con’t)

1.6 Demonstrate the procedure for disinfection of heat liable plastics and instruments.
1.7 Demonstrate proper handling and storage of disinfected and sterile instruments.

2. Demonstrate a basic understanding of the procedures necessary to prepare the operatory and tray set-up for patient treatment.
2.1 Identify the different types and kinds of hand and rotary instruments and explain the function of each.
2.2 Assemble the proper tray set-up for an oral exam, prophylaxis, fluoride treatment, rubber dam, amalgam, and composite restoration.
2.3 Prepare the operatory with proper barriers and equipment for an oral exam, prophylaxis, fluoride treatment, rubber dam, amalgam, and composite restoration.

3. Demonstrate a basic understanding and skills necessary to assist the dentist with common dental procedures.
3.1 Discuss and demonstrate the methods for dental charting of existing conditions, using both anatomical and geometrical charts.
3.2 Demonstrate various methods of passing and transferring hand instruments, including pen, palm, and palm-thumb grasp.
3.3 Demonstrate the proper procedures for preparing, positioning, and dismissing the patient for dental treatment.
3.4 Demonstrate correct methods for rinsing and evacuating oral fluids during dental procedures.
3.5 Demonstrate the correct method for preparation, delivery, reception, and care of a local anesthetic syringe and materials.
3.6 Demonstrate the proper application of topical anesthetic.
3.7 Demonstrate the proper method of mixing and clean-up of various cements and liners used during amalgam and composite procedures.
3.8 Explain the purpose of the Tofflemire matrix retainer and demonstrate how to choose the proper bands and wedges, prepare the retainer, and supply all materials necessary for the placement of a matrix and retainer.
3.9 Demonstrate the proper procedure for application and removal of rubber dam on a patient.
3.10 Assist the operator in the performance of a dental prophylaxis.
3.11 Demonstrate the proper procedure for application of topical fluoride.
3.12 Expose, process, and mount bitewing and periapical radiographs.
3.13 Describe and demonstrate methods and procedures for brushing and flossing for the dental patient.
3.14 Assist the operator with amalgam and composite restoration procedures.
3.15 Provide appropriate post-operative instructions to the patient following dental treatment.
II. EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES: (con’t)

4. Demonstrate a basic understanding of medical emergencies and their management in the dental office.
   4.1 Demonstrate procedures for measuring and recording vital signs.
   4.2 Outline and perform the steps in one- and two-person CPR rescue methods.
   4.3 Identify medical conditions or health changes that may affect a patient’s dental treatment.
   4.4 Describe the appropriate emergency equipment for a dental office.
   4.5 Describe the chain of command in a dental emergency.
   4.6 Explain and demonstrate the management of common medical emergencies.

5. Demonstrate the ability to communicate effectively and professionally with patients and members of the dental health team.

6. Demonstrate a basic understanding and skills necessary for performing expanded functions allowable under Illinois law.
   6.1 Perform coronal polishing.
   6.2 Application of pit and fissure sealants.
   6.3 Polish amalgam restorations.
   6.4 Monitor the administration of nitrous oxide gas and alert the dentist to any adverse reactions.

III. COURSE CONTENT:

I. Asepsis
   A. Barrier attire
   B. Ultrasonic cleansing of instruments
   C. Heat sterilization procedures
   D. Chemical disinfection procedures
   E. Proper storage and handling of sterile or disinfected instruments
   F. Asepsis during dental procedures

II. Preparation for dental procedures
   A. Tray set-ups
   B. Operatory preparation
   C. Equipment and instrument preparation

III. Dental procedures
   A. Positioning of the patient, assistant, and operator
   B. Assisting with dental procedures
      1. Oral examination
      2. Prophylaxis
      3. Application of rubber dam
      4. Composite restoration
      5. Amalgam restoration
III. COURSE CONTENT: (con’t)

C. Post-operative instructions
D. Oral hygiene instruction
E. Dismissal of the patient

IV. Medical emergencies
A. Vital signs
B. Cardio-pulmonary resuscitation
C. Emergency equipment
D. Chain of command
E. Emergency management
   1. Syncope
   2. Hyperventilation
   3. Choking/airway obstruction
   4. Anaphylaxis
   5. Diabetic emergencies
   6. Cardiac emergencies

V. Communication skills
A. Team members
B. Patient
   1. Verbal
   2. Non-verbal

VI. Expanded Functions
A. Coronal polishing
B. Pit and fissure sealants
C. Polishing amalgam restorations
D. Monitoring of nitrous oxide

IV. INSTRUCTIONAL METHOD:

Lecture

Demonstration

Class discussion

Computers - tutorial software

Clinical application of skills by the student

Clinical observation of dental procedures by the student

Role-playing situations
V. INSTRUCTIONAL MATERIALS:

Computer software - Dental Instruments
  Dental Materials
  Dental Anatomy
  Medical Emergencies

Dental equipment, instruments, and miscellaneous supplies

VI. STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

Students are required to wear the class uniform to all class meetings and follow the posted clinic rules.

Evaluation will be based on the student's competence in performing the skills necessary for various dental procedures and expanded functions.

A minimum grade of “C” is required to complete the course.

The student must actively assist the operator with:
  4 oral exams
  4 prophylactic scalings
  1 fluoride treatment
  3 amalgam restorations
  3 composite restorations

The student must perform:
  4 coronal polishings on human subjects
  4 amalgam polishings
  6 sealant placements on human subjects
  2 monitoring of nitrous oxide sedation
  2 single tooth and 2 quadrant rubber dam applications
  4 bitewing radiographic series on human subjects
  6 sealant placements on mannequin

The student must provide oral hygiene instruction to patients, local school children and public agencies when requested. A minimum of one written report with audio tape is required.

The student must role-play the management of common medical emergencies.

The student will also take a written final exam.

All of the following will be averaged equally to determine the student's final grade.

  Final exam score
  1 Clinical dentist evaluation of general skills
  1 Dental assisting instructor evaluation of general skills
  1 Clinical dentist evaluation of expanded function skills
  1 Dental assisting instructor evaluation of expanded function skills
  Medical emergencies role-play score
  Oral hygiene instruction project score
VII. REFERENCES:


