COMMON COURSE OUTLINE: Course discipline/number/title: DA 1220: Chairside Assisting I

A. CATALOG DESCRIPTION
1. Credits: 6
2. Hours/Week: 2 hours lecture, 8 hours lab
3. Prerequisites (Course discipline/number): DA Program Admission
4. Co-requisites (Course discipline/number): None
5. MnTC Goals (if any): NA

This course covers the following fundamental areas of four-handed dentistry: dental equipment, instruments and supplies; instrument tray set-ups; patient and team positioning; maintenance of the operating field; instrument transfer; patient management; the fundamentals of operative dentistry; assisting for local anesthesia, oral diagnosis, oral prophylaxis, amalgam and composite restorations; and the prevention, recognition and treatment of medical emergencies.

This course should be taken concurrently with DA 1225: Dental Infection Control, and is a pre-requisite to DA 1260: Chairside Assisting II.

B. DATE LAST REVISED (Month, year): April, 2012

C. OUTLINE OF MAJOR CONTENT AREAS:
1. The Dental Office
   a) Dental Office Design
   b) Dental Office Environment
2. Operatory Equipment
   a) Operatory Equipment Design and Use
   b) Operatory Equipment Operation and Maintenance
   c) Arranging and Preparing the Dental Operatory for Use
3. Instrument Tray-Ups
   a) Determining Procedure Tray Set-Up Needs
   b) Asepsis for Tray Set-Ups
   c) Tray System Components
   d) Tray System Technique
   e) Instrument Cassette Systems
   f) Color Coding Tray Set-Ups
4. Positioning to Perform at Chairside
   a) Zones of Activity for Dental Treatment
   b) Positioning the Patient for Dental Treatment
   c) Positioning the Dental Assistant for Dental Treatment
   d) Positioning the Operator for Dental Treatment
   e) Positioning the Operatory Light for Dental Treatment
5. Maintaining a Clear Field for Dental Treatment
   a) Soft Tissue Retraction
   b) Cotton Roll Placement and Removal
   c) Placement and Removal of Saliva Absorbers
   d) Use of Mouth Props/Gags
   e) Saliva Ejector Placement and Use
   f) Oral Evacuation
   g) Use of the Air/Water Syringe
   h) Oral Evacuation and Retraction During Use of the Dental Handpiece
   i) Assisting With the Placement and Removal of Dental Dam
6. Dental Hand Instruments
   a) Introduction to Dental Hand Instruments
   b) Cavity Preparation Handcutting Instruments
   c) Miscellaneous Hand Instruments
   d) Restorative Handcutting Instruments
   e) Prophylactic Handcutting Instruments
   f) Instrument Sharpening
C. OUTLINE OF MAJOR CONTENT AREAS: continued...

7. Instrument Transfer
   a) Classification of Hand and Arm Movements
   b) Fundamentals of Efficient Instrument Transfer
   c) Special Transfers
   d) Operator Rests and Guards

8. Dental Handpieces
   a) Introduction to Dental Handpieces
   b) Handpiece Designs and Uses
   c) Dental Handpiece Attachments
   d) Dental Handpiece Operation
   e) Dental Handpiece Maintenance

9. Rotary Instruments
   a) Introduction to Rotary Instruments
   b) Fissure Burs
   c) Diamond Burs
   d) Finishing Burs
   e) Surgical Burs
   f) Laboratory Burs
   g) Fissurotomy Burs
   h) Other Rotary Instruments
   i) Use of Coolant with Rotary Instruments
   j) Specialized Rotary Kits

10. Miscellaneous Armamentarium
   a) Expendable Supplies
   b) Non-Expendable Supplies

11. Assisting with Local Anesthesia
   a) Definitions and Types of Anesthesia
   b) Local Anesthetic Injections
   c) Local Anesthetic Armamentarium
   d) Assembly/Dis-Assembly of the Aspirating Anesthetic Syringe
   e) Adjusting the Bevel
   f) Other Modes of Delivery of Local Anesthesia
   g) Hazards Management

12. Assisting for the Use of Matrices
   a) Purpose and Use of Matrices
   b) Matrices for Posterior Teeth
   c) Matrices for Anterior Teeth
   d) Use of Wedges
   e) Assembly and Use of Matrices and Wedges

13. Patient Management for a Procedure
   a) General Goals of Patient Management
   b) Positive Patient Communications
   c) Patient Management Protocol for Dental Procedures
   d) Managing Special Patient Situations

14. Assisting for Oral Diagnosis
   a) Definitions
   b) Diagnostic Techniques
   c) Components of the Oral Diagnosis Procedure
   d) Oral Diagnosis Tray Set-Up
   e) Treatment Planning
   f) Case Presentation
   g) Treatment Progress Notes
   h) Collecting and Recording Accurate Medical/Dental Histories
   i) Performing A Soft Tissue Exam
C. OUTLINE OF MAJOR CONTENT AREAS: continued...

15. Assisting for Oral Prophylaxis
   a) Definitions
   b) Components of the Oral Prophylaxis Procedure
   c) Oral Prophylaxis Tray Set-Up
   d) Dental Assistant Functions during Oral Prophylaxis

16. Operative Dentistry
   a) Definitions
   b) Purposes of Operative Dentistry
   c) Terminology in Operative Dentistry
   d) Cavity Classifications
   e) Steps in Cavity Preparation
   f) Types of Operative Dental Procedures
   g) General Procedural Order for Operative Procedures

17. Assisting for Amalgam Restorations
   a) Introduction
   b) Preparation Prior to Treatment
   c) Examination and Anesthesia
   d) Cavity Preparation
   e) Cavity Restoration and Finishing
   f) Post-Operative Procedures
   g) Amalgam Tray Set-Up and Equipment

18. Assisting for Composite Restorations
   a) Introduction
   b) Preparation Prior to Treatment
   c) Examination and Anesthesia
   d) Cavity Preparation
   e) Cavity Restoration and Finishing
   f) Post-Operative Procedures
   g) Composite Tray Set-Up and Equipment

19. Assessing Patient Vital Signs
   a) Pulse
   b) Respiration
   c) Blood Pressure
   d) Temperature
   e) Breath Odors
   f) External Physical Signs - Gait, Tissue Color, Pupils, Swelling
   g) Ability to Respond to Verbal/Non-Verbal Stimuli

20. Preparing for Dental Emergencies
   a) Dental Staff Training
   b) Dental Office Emergency Protocol
   c) Emergency Practice Drills
   d) How to Report an Emergency
   e) Post Emergency Numbers
   f) When to call EMS
   g) Emergency Kits and Supplies
   h) Use of Oxygen

21. Basic Life Support
   a) Terminology
   b) ABCDs of Emergency Care
   c) Rescue Breathing
   d) CPR/AED
   e) Obstructed Airway
   f) Control of Bleeding
C. OUTLINE OF MAJOR CONTENT AREAS: continued...

22. Responding to Medical Emergencies
   a) Breathing Emergencies
   b) Loss of Consciousness Emergencies
   c) Circulatory Emergencies
   d) Allergy-Induced Emergencies
   e) Blood Sugar Emergencies
   f) Epileptic Emergencies
   g) Drug Overdose Emergencies
   h) Nosebleed

23. Responding to Dental Emergencies
   a) Problems with Orthodontic Appliances
   b) Toothache
   c) Abscessed Tooth
   d) Avulsed Tooth
   e) Laterally Luxated Tooth
   f) Intruded Tooth
   g) Extruded Tooth
   h) Fractured Tooth
   i) Traumatic Soft Tissue Injuries
   j) Objects Caught in Between the Teeth
   k) Possible Jaw Fracture, Dislocation, TMJ Problem

D. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Demonstrate professional dental assistant traits.
2. Perform routine dental clinic maintenance.
3. Describe features of effective dental office/clinic design and environment.
4. Describe operatory equipment design and function.
5. Operate and maintain dental operatory equipment.
7. Describe instrument tray set-up and instrument cassette equipment and supplies.
9. Correctly prepare instrument tray set-up.
11. Describe correct chairside team, patient, and operatory light positioning.
13. Describe tissue retraction techniques.
14. Demonstrate correct tissue retraction techniques.
15. Describe correct treatment field isolation techniques.
16. Demonstrate correct treatment field isolation techniques.
17. Assist for the placement and removal of rubber dam isolation.
18. Describe correct use of the air/water syringe.
19. Demonstrate correct use of the air/water syringe.
20. Describe correct oral evacuation techniques.
21. Demonstrate correct oral evacuation techniques.
22. Describe dental hand instrument characteristics, classifications, and uses.
23. Identify and state the use of cavity preparation, restorative, prophylactic and miscellaneous dental hand instruments.
24. Perform instrument sharpening.
25. Describe operator hand and arm movement classifications.
26. Describe operator hand instrument grasps, rests and guards.
27. Demonstrate effective operator grasps, rests and guards.
28. Describe the characteristics of effective instrument transfer.
29. Demonstrate efficient instrument transfer.
30. Describe dental handpiece design, function, and maintenance.
31. Identify dental handpieces and their attachments.
32. Demonstrate correct dental handpiece assembly and maintenance.
33. Describe rotary instruments and their uses.
34. Identify rotary instruments.
LEARNING OUTCOMES (GENERAL): The student will be able to: Continued...
35. Describe expendable and non-expendable dental supplies and their use.
36. Identify expendable and non-expendable dental supplies.
37. Describe types of local anesthesia and their use.
38. Describe local anesthesia injection techniques and armamentarium.
39. Correctly assemble and disassemble local anesthetic syringes.
40. Correctly manage local anesthesia waste.
41. Describe the designs and uses of matrix retainers.
42. Correctly assemble matrix retainers.
43. Describe effective patient management techniques for dental procedures.
44. Demonstrate effective patient management.
45. Define the terms associated with oral diagnosis procedures.
46. List and describe the components of an oral diagnosis procedure.
47. Prepare oral diagnosis tray set-ups.
48. Identify medical conditions requiring pre-operative consideration, their potential treatment modification, and the required chart notation.
49. Describe the ASA classifications for medically compromised patients.
50. Accurately collect patient case histories.
51. Accurately assess patient health histories and make appropriate chart notations.
52. Assist for oral diagnosis procedures.
53. Complete a soft tissue exam and note your findings.
54. List and describe the components of an oral prophylaxis procedure.
55. Prepare oral prophylaxis tray set-ups.
56. Assist for an oral prophylaxis procedures.
57. Define operative dentistry terms.
58. Describe cavity classifications.
59. Describe cavity preparation techniques.
60. Define the various types of dental restorations and their uses.
61. List and describe all the steps for an amalgam restoration.
63. Assist for an amalgam procedure.
64. Give pre-operative and postoperative patient instructions for amalgam procedures.
65. List and describe all the steps for a composite restoration.
66. Prepare composite tray set-ups.
67. Assist for a composite procedure.
68. Give pre-operative and post-operative patient instructions for composite procedures.
69. Prepare to manage medical emergencies.
70. Describe medical emergency supplies/drugs and their function.
71. Demonstrate the correct use of oxygen.
72. Assess patients for potential medical emergencies.
73. Take and accurately record patient vital signs.
74. Recognize signs and symptoms of medical emergencies.
75. Describe the recommended treatment for medical emergencies.
76. Simulate management of medical emergencies.

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:
1. Weekly written quizzes.
2. Practical identification quizzes on all instruments, equipment, and supplies.
3. Written assignment on medical/dental emergencies.
4. Written Final Exam
5. Identification Final Exam
6. Attendance
7. Laboratory/Clinical Skill performance evaluations.
G. **RCTC CORE OUTCOME(S) ADDRESSSED:**

- ☑ Communication
- ☑ Civic Responsibility
- ☑ Critical Thinking
- ☑ Personal/Professional Accountability
- ☑ Global Awareness/Diversity
- ☑ Aesthetic Response

H. **SPECIAL INFORMATION (if any):**

1. RCTC Dental Assistant Program Uniforms and Name tag
2. RCTC Dental Assistant Program Safety Glasses
3. Immunizations up to date
4. Hepatitis B Vaccine
5. Satisfactory physical assessment
6. Acceptable state and national background studies
7. Students must comply with all RCTC Dental Assistant Program Dental Clinic/Lab Policies and Protocols. (i.e. Infection Control and Hazards Management Protocols, Clinic Dress and Etiquette Protocols, Attendance)