Course discipline/number/title: DA 1265: Expanded Functions I

A. CATALOG DESCRIPTION
   1. Credits: 7
   2. Hours/Week: 2 lecture, 2 lab, 10 clinic
   3. Prerequisites (Course discipline/number): Dental Assisting Diploma or AAS Degree Students: DA 1200, DA1210, DA 1215, DA 1220, DA 1225, DA 1230. Dental Assistant Expanded Functions Certificate students: Certified Dental Assistant and DA 1225
   4. MnTC Goals (if any): NA

   Expanded Functions I covers the theory and pre-clinical/clinical experiences required by the Minnesota Board of Dentistry in preparation for becoming a Licensed Dental Assistant in Minnesota. After the theory and demonstrations are presented, the students receive practical experience on manikins and patients under the direct supervision of the dental assisting instructors and the clinic dentist. Students will be required to demonstrate professional attitudes and communications, ethical decision-making, effective chairside assisting, dental infection control and hazards management and dental practice management.

B. DATE LAST REVISED (Month, year): February, 2018

C. OUTLINE OF MAJOR CONTENT AREAS:
   1. Regulation of the Minnesota Expanded Functions for Dental Assistants
   2. Obtaining Informed Consent
   3. Preliminary Charting of the Oral Cavity
   4. Mechanical Polishing
   5. Application of Topical Fluoride
   6. Taking Alginate Impressions and Bite Registrations
   7. Extra and Intra Oral Photography
   8. Digital Scanning the Dental Arches
   9. Placing and Removing Dental Dam
   10. Place Topical Anesthetics
   11. Place and Remove Matrices
   12. Fabricate, Cement and Adjust Provisional Restorations
   13. Re-Cement Intact Temporary Restorations
   14. Place Temporary Fillings
   15. Remove Temporary Crowns
   16. Etch Appropriate Enamel Surfaces, Apply and Adjust Pit & Fissure Sealants
   17. Remove Excess Cement
   18. Place and Remove Periodontal Packs
   19. Remove Sutures
   20. Place Topical Medications and Cavity Varnishes
   21. Drying Root Canals and Placing Temporary Root Canal Sealer
   22. Place Non-Surgical Gingival Retraction Materials
   23. Place and Remove Orthodontic Separators
   24. Preselect Orthodontic Bands
   25. Place and Remove Alastic Ligatures
   26. Place and Remove Metal Ligature Ties
   27. Etch Appropriate Enamel Surfaces Before Bonding Orthodontic Brackets
   28. Remove Excess Orthodontic Bonding Agent With Hand Instrument
   29. Removal of Orthodontic Bonding Agent With Rotary Instruments
   30. Palliative Orthodontic Procedures: Cut Arch Wires, Remove Loose Bands, or Remove Loose Brackets on Orthodontic Appliances
   31. Remove Orthodontic Brackets and Bands
   32. Attach Pre-Fit Orthodontic Appliances
   33. Deliver Vacuum Formed Orthodontic Retainers
D. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Employ effective patient/team communications
2. Demonstrate professional attitudes
3. Employ ethical decision making
4. Demonstrate responsible work habits.
5. Demonstrate principles of teamwork.
6. Employ current principles of aseptic techniques, dental infection control and hazards management.
8. Maintain effective operator/assistant ergonomics.
9. Manage patients effectively during dental procedures.
10. Collect new patient and record patient general and health data.
11. Collect and review patient health histories.
12. Complete patient pre-operative assessment
13. Chart patient diagnostic and treatment data accurately.
14. State the legal parameters for all expanded functions.
15. List the essentials for obtaining informed consent.
17. List the essential components for preliminary charting of the oral cavity.
18. Describe dental charting methods and materials.
19. Accurately chart patient oral/dental conditions.
20. Describe dental tooth stains and deposits.
21. Describe abrasive and polishing actions.
22. Describe mechanical polishing armamentarium.
23. Describe effective mechanical polishing techniques.
24. List and describe mechanical polishing procedural steps.
25. Prepare mechanical polishing tray set-ups and operatories.
27. Perform mechanical polishing procedure.
28. Critique mechanical polishing procedure.
29. Explain the purposes/uses of topical fluorides.
30. Explain the chemistry and action of topical fluorides.
31. Describe the types of topical fluorides.
32. Describe topical fluoride application armamentarium.
33. Describe topical fluoride application techniques.
34. List and describe topical fluoride application procedural steps.
35. Prepare topical fluoride tray set-ups and operatories.
36. Perform topical fluoride application.
37. Critique topical fluoride application.
38. Explain the purpose/use of diagnostic impressions and opposing arch impressions.
39. Describe the types of alginate impression materials and their properties.
40. Describe alginate impression armamentarium.
41. Describe effective alginate tray try-in and adjustment.
42. Describe effective patient management and safety during impression taking.
43. List and describe alginate impression procedural steps.
44. Prepare alginate impression set-ups and operatories.
45. Take accurate mandibular and maxillary alginate impressions.
46. Critique mandibular and maxillary alginate impressions.
47. Explain the purpose of wax bite registrations.
48. Describe effective bite registration techniques.
49. Take wax bite registrations.
50. Describe the purpose/uses of rubber dam isolation.
51. Describe rubber dam armamentarium.
52. Describe effective rubber dam placement and removal techniques.
53. List and describe rubber dam placement and removal procedural steps.
54. Prepare rubber dam tray set-ups and operatories.
55. Place and remove rubber dam isolation.
LEARNING OUTCOMES (GENERAL): The student will be able to: Continued...

55. Place and remove rubber dam isolation.
56. Critique rubber dam placement and removal.
57. Explain the purposes/uses of temporary crowns/bridges.
58. Identify types of temporary crowns/bridges.
59. Describe the criteria for a correctly adapted, cemented and adjusted temporary crown/bridge.
60. Describe temporary crown/bridge fabrication/adaptation, cementation, and adjustment techniques.
61. List and describe the procedural steps for fabricating/adapting, cementing and adjusting temporary crowns and bridges.
63. Correctly fabricate/adapt, cement, and adjust temporary crowns and bridges.
64. Critique crown and bridge adaptations, cementation and adjustment.
65. Describe the technique for re-cementing intact temporary restorations.
66. Re-cement intact temporary restorations.
67. Identify temporary crown removal armamentarium.
68. Describe correct temporary crown removal techniques.
69. Remove temporary crowns.
70. Critique removal of temporary crowns.
71. Explain the purposes/uses of topical anesthetics.
72. Explain the chemistry and action of topical anesthetics.
73. Describe the types of topical anesthetic agents.
74. Describe topical anesthetic placement techniques and procedural steps.
75. Identify topical anesthetic site placement and nerve intervention for dental anesthetic injections.
76. Prepare topical anesthetic tray set-ups and operatories.
77. Place topical anesthetic.
78. Critique topical anesthetic effectiveness.
79. Describe the purposes and uses of matrix retainers and wedges.
80. Identify the types of matrix retainers and state the use of each type.
81. Identify the types of wedges and state the use of each type.
82. Identify the functional parts of each matrix retainer.
83. Describe the correct assembly, placement and removal techniques for each type of matrix retainer.
84. Describe the evaluation criteria for the placement and removal of matrices.
85. List the armamentarium for the placement and removal of matrices.
86. Describe the patient and operator safety techniques used for placing and removing matrices.
87. Correctly place and remove all types of matrix retainers and wedges.
88. Explain the purposes/uses of enamel etching.
89. Explain the chemistry/action of enamel etchant agents.
90. Describe the appearance of a correctly etched enamel surface.
91. Describe enamel etching armamentarium.
92. Describe effective enamel etching techniques.
93. List and describe enamel etching procedural steps.
94. Etch enamel surfaces.
95. Critique enamel etching.
96. Explain the purpose/uses of pit and fissure sealants.
97. Explain the chemistry/action of pit and fissure sealants.
98. Describe the types of pit and fissure sealants.
99. Describe effective pit and fissure sealant application techniques.
100. List and describe pit and fissure sealant application procedural steps.
101. Describe pit and fissure application armamentarium.
102. Prepare pit and fissure sealant tray set-ups and operatories.
103. Apply pit and fissure sealants.
104. Critique pit and fissure sealant application.
105. Explain the purpose of cement removal.
106. Identify types of cements and their correct removal state.
107. Describe effective cement removal techniques.
108. List and describe cement removal procedural steps.
LEARNING OUTCOMES (GENERAL): The student will be able to: Continued...

110. Prepare cement removal set-ups and operatories.
111. Remove excess cement.
112. Critique cement removal.
113. Explain the purposes/uses of periodontal packs.
114. Describe the types of periodontal packs and their properties.
115. Describe effective periodontal pack placement and removal techniques.
116. List and describe periodontal pack placement/removal procedural steps.
118. Prepare periodontal pack set-ups and operatories.
119. Place and remove periodontal packs.
120. Critique periodontal pack placement/removal.
121. Explain dental purposes/uses of sutures.
122. Describe types of sutures and their uses.
123. Describe suture removal techniques.
124. List and describe suture removal procedural steps.
125. Describe suture armamentarium.
126. Remove sutures.
127. Critique suture removal.
128. Explain topical medications purposes/uses.
129. Identify indications/contra-indications of topical medications.
130. Describe possible topical medications possible adverse reactions/side effects.
131. Describe effective topical medication placement.
132. Identify topical medication placement armamentarium.
133. Prepare topical medication tray set-ups.
134. Place topical medications.
135. Critique topical medication placement.
136. Identify root canal drying armamentarium.
137. Describe correct root canal drying techniques.
138. Dry root canals.
139. Critique root canal drying procedures.
140. Identify root canal temporary sealing armamentarium.
141. Describe correct root canal temporary sealer technique.
142. Place temporary root canal sealer.
143. Critique temporary root canal sealing procedure
144. Explain the purpose/use of orthodontic separators.
145. Describe orthodontic separator placement/removal technique.
146. Describe correct orthodontic separator placement.
147. Identify orthodontic separator placement/removal armamentarium.
149. Place and remove orthodontic separators.
150. Critique orthodontic separator placement/removal.
151. Explain the purpose of orthodontic band pre-selection.
152. Describe orthodontic band design and sizes/numbering.
153. Describe the criteria for a correct orthodontic band fit.
154. Describe orthodontic band pre-selection techniques.
155. Identify orthodontic band pre-selection armamentarium.
156. Pre-select orthodontic bands.
158. Explain the purpose of etching enamel surfaces prior to bracket bonding.
159. Describe the correct technique for etching the enamel surface prior to ortho bonding.
160. List the armamentarium and the procedural steps for etching prior to ortho bonding.
161. Explain the purpose/use of orthodontic elastic/metal ligatures.
162. Describe the criteria of correct orthodontic elastic/metal ligature.
163. Describe orthodontic elastic/metal ligature placement/removal techniques.
D. LEARNING OUTCOMES (GENERAL): The student will be able to: Continued. . .
164. Identify orthodontic elastic/metal ligature placement/removal armamentarium.
165. Prepare orthodontic elastic/metal ligature set-ups.
166. Place and remove orthodontic elastic/metal ligatures.
168. Explain the purpose of orthodontic bonding agent removal.
169. Describe orthodontic bonding agents.
170. Describe orthodontic bonding agent removal techniques.
171. Identify orthodontic bonding agent removal armamentarium.
172. Prepare orthodontic bonding tray set-ups.
173. Identify and describe the procedural steps for orthodontic bonding agent removal.
174. Remove excess orthodontic bonding agent.
175. Critique orthodontic bonding agent removal.
176. State the objectives of removal of orthodontic bonding agent.
177. Identify the armamentarium for removal of orthodontic bonding agent with rotary instruments.
178. Describe the appearance and characteristics of residual bonding orthodontic agents.
179. Describe the correct technique for removal of excess bonding material with rotary instruments.
180. Describe patient management and safety during removal of excess bonding material with rotary attachments.
181. Critique removal of excess bonding material with rotary instruments.
182. Describe orthodontic band and bracket removal techniques.
183. Describe the criteria for correct orthodontic band and bracket removal.
184. List orthodontic band and bracket removal armamentarium.
185. Correctly remove orthodontic brackets and bands.
186. Critique orthodontic band and bracket removal.
187. Explain patient instructions for delivery of a vacuum formed orthodontic retainer.
188. Explain the technique for attaching pre-fit orthodontic appliances.
189. Describe the purpose and uses of gingival displacement/retraction.
190. Identify various dental finish lines.
191. Define hemostasis and describe the use of astringents and hemostatic agents.
192. Name and describe the characteristics and application methods of astringents and hemostatic agents used for gingival retraction.
193. Describe characteristics of correct gingival displacement/retraction.
194. Describe the various methods of gingival displacement/retraction.
195. Identify the armamentarium for gingival displacement/retraction for each different method.
196. List the procedural steps of gingival displacement/retraction for each different method.
197. Describe effective patient management and safety during gingival displacement/retraction.
198. Displace the gingivae using single and double cord techniques, retraction caps, retraction pastes and retraction materials.
199. Critique gingival displacement/retraction.
201. Correctly expose, evaluate and store digital radiographic surveys.
203. Describe common types of intra-oral and extra-oral photographs/images and their uses in dentistry.
204. Describe the equipment and space needs for taking extra-oral and intraoral photographs/images in dentistry.
205. Demonstrate effective use of cameras/imaging devices and retractors to secure accurate images/photographs.
206. Take and critique intra-oral and extra-oral photographs/images.
207. Assist during medical/dental emergencies as needed.
208. Recirculate dental instruments and supplies.
209. Correctly dispose of hazardous waste.
210. Maintain dental operatory equipment and supplies.
211. Perform dental receptionist duties.
212. Demonstrate effective telephone techniques.
213. Schedule and confirm patient appointments.
D. LEARNING OUTCOMES (GENERAL): The student will be able to: Continued...  
214. Perform basic dental bookkeeping procedures.

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:  
1. Weekly written quizzes.  
2. Written assignments  
3. Participation.  
4. Expanded Functions Skill Evaluations  
5. Affective behavior evaluations  
6. Final written exam.

G. RCTC CORE OUTCOME(S) ADDRESSED:  
[N] Communication  
[N] Critical Thinking  
[N] Global Awareness/Diversity  
[N] Civic Responsibility  
[N] Personal/Professional Accountability  
[N] Aesthetic Response

H. SPECIAL INFORMATION (if any):  
1. RCTC Approved uniform attire, safety glasses, and nametag.  
2. Current Certification in American Red Cross or American Heart Association BLS (Basic Life Support) for the Healthcare Provider (CPR/AED)  
3. Approved state background study  
4. Approved health assessment  
5. Hepatitis B Vaccine  