HIBBING COMMUNITY COLLEGE
COURSE OUTLINE

COURSE TITLE & NUMBER: Chairside Assisting 2: DAS 1552
CREDITS: 3 (2 Lec / 1 Lab)
PREREQUISITES: DAS 1512: Chairside Assisting 1

CATALOG DESCRIPTION: Chairside Assisting 2 deals only with the specialty areas of dentistry. It will give the student the knowledge and skills to assist dentists in these specialized positions.

OUTLINE OF MAJOR CONTENT AREAS:
1. Endodontics
   A. Indications for endodontic treatment
   B. Contradictions for endodontic treatment
   C. Role of the dental assistant in endodontics
   D. Pulpalgia
      1. Acute pulpalgia
      2. Hyperactive pulpalgia
      3. Hypersensitivity
      4. Hyperemia
      5. Hyperplastic pulpitis
      6. Necrotic pulp
      7. Internal Resportion
      8. Traumatic occlusion
      9. Incomplete fracture
     10. Diagnosis and treatment planning
     11. The examination
     12. Radiographs
     13. Percussion and palpation
     14. Mobility
     15. Testing thermal sensitivity
     16. Transillumination
     17. Test of tooth cavity
     18. Test of anesthesia
     19. Pulp vitality test
        a. Instrumentation
        b. Procedure
        c. False responses
        d. Variable responses
     20. Case presentation
   F. Instrumentation for endodontic treatment
      1. Broaches
      2. Reamers
      3. Endodontic files
         a. Sizes and color coding
4. Gates-Glidden drills
5. Spreaders
6. Condensers
7. Lentulo spiral
8. Messing root canal gun
9. Paper points
10. Gutta-Percha points
11. The special care of endodontic instruments
12. Sterile technique in endodontic treatment
   a. Rubber dam
   b. Endodontic kits and packs
   c. Sterile field
13. Glass bead sterilizer
G. Antibiotic therapy
H. Incision and drainage
   1. Instrumentation
   2. Procedure
I. Steps in endodontic treatment
   1. Instrumentation
   2. Anesthesia and pain control
   3. Isolation and preparation of the tooth
   4. Entry into pulp chamber and canals
   5. Removal of the pulp and pulpal remnants
   6. Debridement of the canals
      a. Mechanical debridement
      b. Chemical debridement
   7. Measuring the length of the tooth
      a. Procedure
   8. Estimated working length and stops
      a. Procedure
   9. Sterilization of the pulp chamber and canals
10. Irrigation of the pulp chamber and canals
    a. Solutions
    b. Syringes
    c. Procedure
11. Application of medicaments
12. Filling the root canal(s)
    a. Instrumentation
    b. Fitting the trial point
    c. Final filling of the root canal(s)
    d. Permanently restoring the tooth
J. An overview of endodontic appointments
   1. First visit treatment
   2. Second visit treatment
   3. Third visit treatment
K. Other endodontic procedures
1. Vital pulp capping
2. Pulpectomy
3. Pulpotomy
4. Apicoectomy
   a. Instrumentation
   b. Procedure
5. Retrofilling
   a. Instrumentation
   b. Procedure
6. Root resection
   a. Procedure
7. Replant technique
   a. Intentional replant
   b. Procedure
   c. Accidental evulsion
8. Bleaching discolored non-vital teeth
L. Postoperative follow-up of teeth treated with endodontic procedures

2. Oral surgery
   A. Indications for oral surgery
   B. Contraindications for oral surgery
   C. Examination and presentation of the case
      1. Medical history
      2. Radiographs
      3. Oral examination
      4. Cost estimate and treatment plan
   D. Pain control in oral surgery
      1. Sedation and premedication
      2. Specialized local anesthesia needs
      3. General anesthesia
   E. Specialized instrumentation for oral surgery
      1. Elevators
         a. Periosteal elevator
         b. Root elevator
         c. Tooth elevator
         d. Apical elevator
      2. Forceps
         a. Maxillary incisors
         b. Maxillary cuspids and premolars
         c. Maxillary molars
         d. Mandibular incisors
         e. Mandibular cuspids and premolars
         f. Mandibular molars
         g. Mandibular third molars
         h. Children’s teeth
   3. Curette
   4. Rongeur
5. Bone file
6. Scalpel
7. Hemostat and needle holder
8. Scissors
   a. Tissue scissors
   b. Suture scissors
9. Retractors
   a. Tissue retractors
   b. Cheek and tongue retractors
10. Mouth props
11. Surgical burs
12. Surgical mallets and bone chisels
13. The surgical aspirating unit

F. The chain of asepsis
   1. Care and sterilization of surgical instruments
   2. Surgical pre-set trays
   3. Staff preparation

G. The role of the assistant in oral surgery
   1. Advance preparation
   2. Prior to surgery
   3. Patient preparation
   4. During surgery
   5. After surgery

H. Immediate postoperative care
   1. Instructions to and dismissal of the patient
   2. Control of bleeding
   3. Control of swelling
   4. Postoperative medication for pain control
   5. Antibiotics
   6. Diet and nutrition

I. The postoperative visit
   1. Postsurgical radiographs
   2. Alveolitis (dry socket): treatment

J. Specific oral surgery procedures
   1. Forceps extractions
      a. Instrumentation
      b. Procedure
   2. Multiple extractions and alveolectomy
      a. Instrumentation
      b. Procedure
   3. Impacted teeth
   4. Frenectomy
   5. Maxillofacial surgery
      a. Osteotomy
      b. Reduction of facial fractures

K. Sutures
1. Preparation and placement of sutures  
   a. Instrumentation  
   b. Procedure  
2. Removal of sutures  
   a. Instrumentation  
   b. Procedure  
3. Pathology tests and biopsy procedures  
   a. Exfoliative cytologic examination  
   b. Biopsy examination  
   c. Removal of benign or malignant tumors  

L. Hospital dentistry  
1. Out-patient treatment  
2. Admission of the dental patient to the hospital  
3. Instruments for hospital dentistry  
4. Preliminary arrangements for operating room  
5. Surgical scrub  
   a. Procedure for surgical scrub  
   b. Procedure for long scrub  
6. Surgical gown and gloves: procedure for putting on surgical gloves and gown  
7. Preparation of the patient  
   a. Extraoral preparation of the patient  
   b. Intraoral preparation of the patient  
   c. Draping the patient  

M. Role of the assistant in hospital dentistry  
1. Completion of the dental operation  
2. Discharge of the patient  

3. Fixed Prostheses  
A. Introduction to fixed prosthetics  
   1. Indications for fixed prosthetics  
   2. Contraindications for fixed prosthetics  
B. Diagnosis and case presentation  
C. Types of crown preparations  
   1. Full crowns  
   2. Veneer crowns  
   3. Partial crowns: three-quarter crowns  
D. Components of crown and bridge prostheses  
E. Full crown preparation (single unit)  
   1. First visit  
   2. Second visit  
   3. Pin retention  
   4. Crown bore build-up  
F. The post and core crown  
G. Fixed crown and bridge preparation  
   1. First visit  
   2. Second visit
3. Third visit

H. Gingival retraction
   1. Mechanical retraction
   2. Surgical retraction
   3. Chemical retraction (cord method)

I. Impressions for fixed prosthetics
   1. Polysulfide impressions
   2. Silicone impressions
   3. Polysiloxane impressions
   4. Hydrocolloid impressions

J. Bite registration
   1. The opposing arch impression
   2. Paste impression
   3. Alternate methods of bite registration

K. Temporary coverage
   1. Criteria for temporary coverage
   2. Construction of an acrylic temporary coverage
   3. Preformed acrylic crown
   4. Preformed aluminum temporary crown

L. Cementation of a fixed prosthesis: types of cement for cementation of crown and bridge prostheses

M. Laboratory procedures
   1. Role of the laboratory technician
   2. The laboratory prescription
   3. Construction of a custom tray
   4. Construction of a custom tray using the vacuum technique
   5. Pouring the opposite arch impression
   6. Articulation of the casts

4. Removable prostheses
   A. The role of the chairside assistant in prosthodontics
   B. The role of the dental laboratory technician in prosthodontics
   C. Considerations preliminary to construction of a dental prosthesis
      1. Extraoral factors
      2. Intraoral factors
   D. Removable partial dentures
      1. Indications for a removable partial prosthesis
      2. Contraindications for a removable partial prosthesis
      3. Removable partial denture components
      4. Preliminary appointment for partial removable denture
      5. Preliminary treatment prior to construction of the prostheses
      6. Selection of abutment teeth
      7. Preparation of abutment teeth
      8. Secondary impression for working casts
      9. Bite registration
      10. Selecting the shade and mold of the artificial teeth
      11. Try-in appointment—wax setup
12. Delivery of the removable partial denture to patient
13. Care of abutment teeth and removable partial denture
14. Appointment for postdelivery check

E. Removable complete dentures
1. Indications for a complete denture
2. Contraindications for a complete denture
3. Components of a removable complete denture
4. Preliminary appointment
5. Custom trays
6. Secondary impression—working casts
7. Baseplates and bite rims
8. The third appointment
9. Try-in appointment—wax setup
10. Finish of the removable complete denture
11. Delivery of the complete denture
12. Oral hygiene – removable complete denture

F. Immediate denture
1. Instrumentation for an immediate denture
2. Procedure for an immediate denture
3. Postoperative checks for the patient with immediate complete denture

G. Relining of a complete or partial removable denture
1. Impression for relining
2. The process of relining a denture
3. Delivery of the relined denture

H. Denture repairs
I. Denture duplicates
J. The overdenture
1. Candidates for overdentures
2. Long and short coping overdenture techniques
3. Bar attachment for overdentures

K. Dental implants
1. Candidates for implants
2. Endosseous implants
3. Subperiosteal implant

L. Laboratory procedures: construction of the bite rim

5. Pediatric dentistry
A. The pediatric dental office
B. Patient control and cooperation
1. Subjective fears
2. Objective fears
3. Helping the fearful child
4. The child adverse to authority
5. Guidelines for the dental staff

C. Pain and anxiety control
1. Premedication
2. Nitrous oxide-oxygen relative analgesia
3. General anesthesia
4. Local anesthesia
5. Post-treatment medication

D. The examination
1. Medical history
2. Radiographs
3. Study casts
4. Blood tests
5. Examination of the face and neck
6. Examination of the oral cavity

E. Coronal polish
F. Topical fluoride application
   1. Stannous fluoride (SnF$_2$)
   2. Sodium fluoride (NaF)
   3. Fluoride rinse

G. Oral disease control
1. Disclosing
2. Brushing
3. Flossing

H. Pit and fissure sealants
   1. Indications for use
   2. Contraindications for use
   3. Application of sealants

I. Preventative resin restorations: indications for use

J. Operative procedures
   1. Cavity preparations for primary teeth
   2. Use of the rubber dam
   3. Restorative materials
   4. Insulating bases

K. Matrices
   1. Commercial
   2. T-band matrix
   3. Spot-welded bands

L. Stainless steel crowns
   1. Types of temporary crowns
   2. Indication for a stainless steel crown
   3. Criteria for fitting a stainless steel crown
   4. Placement of a stainless steel crown

M. Fractured teeth
   1. Classification of injuries
   2. Evulsed teeth
   3. Examination and treatment of traumatized teeth
   4. Treatment of a simple fracture
   5. Fractured teeth with pulpal involvement
6. Pulp therapy for primary and young permanent teeth
7. Indirect pulp capping
8. Direct pulp capping
9. Vital pulpotomy
10. Apexogenesis and apexification

N. Temporary splinting of teeth

O. Custom mouth guards
   1. Vacuum technique for constructing mouth guards
   2. Commercial mouth guards

P. Space maintainers
   1. Fixed space maintainers
   2. Removable space maintainer
   3. Bite plane

Q. Oral surgery for children
   1. Frenal abnormalities
   2. Fistular drainage

6. Ethics and jurisprudence
   A. Ethics: American Dental Assistants Association Principles of Ethics
   B. Dental jurisprudence
      1. The State Dental Practice Act
      2. The State Board of Dental Examiners
      3. The Unlicensed Practice of Dentistry
      4. Direct supervision
      5. General supervision
      6. Legal recourse
   C. The duty of care
   D. Avoiding malpractice
      1. Silence is golden
      2. Consent
      3. Records
      4. Radiographs
      5. Care of instruments
      6. Additional responsibilities

COURSE GOALS/OBJECTIVES/OUTCOMES:
1. Students will identify and describe Oral surgery specialty and procedures.
2. Students will identify and describe Endodontic specialty and procedures.
3. Students will identify and describe Pedodontic specialty and procedures.
4. Students will compare ethics and jurisprudence and identify laws and rules in the state of Minnesota.
5. Students will identify and describe Prosthodontist specialty and procedures.
6. Students will identify and demonstrate fabrication of temporary and permanent crowns.
7. Students will identify and demonstrate elastomeric impression materials.
MNTC GOALS AND COMPETENCIES MET:
N/A

HCC COMPETENCIES MET:
Working Productively and Cooperatively
Communicating Clearly and Effectively
Thinking Creatively and Critically
Social / Civic Responsibility

STUDENT CONTRIBUTIONS:
Students are expected to attend all lectures and working sessions, participate in activities and discussions, listen to and follow directions, complete assignments on time and request assistance when needed. The lectures and activities provide information and skills which are directly related to content goals.

STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.

Curriculum Committee Approval Date: May 1, 2018

AASC APPROVAL DATE: May 9, 2018
REVIEW DATE: May 2023