

Periodontology Clinical Syllabus

**Periodontology Clinics for Third and Fourth year Dental Students
9th Floor – North Clinic, units 33-40**

DDS 6121 and DDS 6122

2.0 Credits each

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Division of Periodontology

School of Dentistry

University of Minnesota

www.umn.edu/perio

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COURSE PURPOSE

These courses are designed to enable the dental student to gain expertise, knowledge, and confidence in the clinical skills needed to examine, diagnose, and treat the periodontal patient.

GENERAL COURSE OBJECTIVES

Upon completion of these courses, the student should be able to:

1. Interpret and apply patient's medical and dental history.
2. Complete extraoral and intraoral soft tissue examination with appropriate follow-up/referral suggested.
3. Identify normal and abnormal gingival tissue conditions.
4. Obtain accurate clinical data used to diagnose periodontal pathology-exploring, probing.
5. Interpret radiographs as applied to periodontics.
6. Understand potential etiologies and risk factors related to periodontal disease.
7. Formulate a periodontal diagnosis, prognosis, and treatment plan.
8. Complete and apply appropriately information and periodontal data collection from a reevaluation examination following root planing.
9. Be able to determine changes in diagnosis, prognosis, etiology, and risk factors following a patient periodontal recall appointment.
10. Assess status of patient's oral hygiene during all phases of periodontal care and give appropriate oral hygiene instructions.
11. Use appropriate methods/techniques of anesthesia for patient comfort during periodontal procedures.
12. Complete scaling-root planing (subgingival debridement) to achieve patient periodontal health.
13. Demonstrate the proper use of periodontal instruments/armamentarium.
14. Follow Dress Code and Clinic Guidelines as stated in the Dental School Student Manual/Handbook.

Reference Texts: The Clinical Periodontology Manual (Available in UM Bookstore during Second Year). 2009 edition.

Carranza FA, Newman MG, Eds. Clinical Periodontology. (Note: This text is required for the periodontology lecture series), 10th edition.

School of Dentistry Competencies Addressed

Major Focus:

- 1.1 Select, obtain, and interpret patient data, information, and radiographs to be able to use these findings to accurately assess and treat patients (as applies to periodontics).
- 1.8 The prevention, identification, and management of periodontal disorders.
- 1.11 Apply universal infection control guidelines for all clinical procedures.

Minor Focus:

- 1.2 Formulate a comprehensive diagnostic and treatment or referral plan for the management of patients.
- 1.4 The prevention, identification, and management of odontogenic and non-odontogenic oral diseases and disorders in pediatric, adolescent, adult and geriatric patients.
- 1.7 Prevent and manage pain and anxiety in the dental patient.
- 1.10 The performance of minor oral surgical procedures.
- 1.15 Performing preventive and restorative procedures that preserve tooth structure, are esthetic and functional, prevent hard tissue disease, and promote soft tissue health.
- 4.2 Maintain and utilize dental records.
- 6.2 Provide appropriate prevention, intervention, and educational strategies for all patients at risk for disease.

Foundation Knowledge:

- 1.3 The prevention, assessment, and management of medical and dental emergencies.
- 1.6 Manage the medically, physically, and/or mentally compromised patient.
- 1.9 The prevention, identification, and management of pulpal and periradicular diseases.
- 1.12 Manage the replacement of teeth for the partially or completely edentulous patient.
- 1.13 Recognize and manage limited development or acquired occlusal abnormalities.
- 1.14 Implement strategies for the clinical management of caries.
- 2.1 Apply appropriate communication skills in providing patient-centered health care to a diverse population.
- 3.1 Apply appropriate ethical and legal standards in providing patient centered care within the individual's scope of competence.
- 4.1 Apply and demonstrate practice management skills, including quality assurance principals.

Clinical Experiences and Competencies in Clinical Periodontology

Professional Responsibility

In the majority of periodontal cases, clinical examination and the treatment of patients will be utilized as learning opportunities and will be continually evaluated but not graded. Students are encouraged to seek as much faculty aid as they feel necessary to enhance their learning experience.

Students are expected to maintain a high level of professionalism throughout their periodontal clinical experiences. This includes treatment of their patients in a timely and orderly manner. Students have responsibility for continual care and evaluation. Failure to follow through with timely care for patients may affect the student's periodontal clinical grade.

Self Evaluation

Students should perform a self-evaluation at each clinical session. Use the criteria listed for each procedure under competency evaluations as a checklist in evaluating yourself and discuss your self-evaluation with a faculty member after a procedure has been completed. This will allow appropriate faculty feedback.

Periodontal Clinical Experiences and Competencies for Graduation

- An adequate number of patient care sessions to meet and develop the expected periodontal competency challenges.
- A **minimum of three (3) sessions** of root planning (subgingival debridement) must be completed prior to undertaking any root planing competencies (ADA Codes 4341, 4342, 4355).
- It is strongly recommended that a **minimum of ten (10) sessions** of root planing be included in the total patient care sessions (ADA Codes 4341, 4342, 4355).
- It is strongly recommended that a **minimum of six (6)** periodontal recall sessions (ADA Code 4910, 4920) be completed.
- Participation in the Periodontal Section of the Mock Boards as 4th Year Students (as applicable).
- **Timely completion** of all periodontal procedures on assigned patients.
- Satisfactory completion of the **seven (7) required competency evaluations**.
- It is strongly recommended that at least one (1) periodontal surgery be completed.

Grading:

Grades for the periodontology clinic (3rd and 4th Year) are based on the results of the **clinical competencies**. The periodontal clinical grade for Dent 6125 is given after the Spring Semester of the D4 year following the completion of the **seven required periodontal competencies and completion of all clinical periodontal requirements**.

Junior (D3) Competency Expectations: 2 competencies completed by the end of Spring Semester D3 year.

If a student receives a **not acceptable** grade for a competency the student is required to repeat the competency with a passing score. Remedial faculty assistance and consultation (feedback) is available to students following competencies. Successful competency scores are calculated into the student's clinical grades. Clinical competency scores are based on performance values.

Performance values are as follows:

Excellent =	4 (A)
Acceptable =	3 (B)
Acceptable if modified =	2 (C)
Not acceptable =	1

Clinical grades (A, B, or C only) are based on the cumulative average of the competencies. No + or – grades are given.

Grade disputes will follow University and SOD policies listed in the Student Handbook. All grade disputes must first be addressed to the course director. All student failures are reviewed by the Scholastic Standing Committee and the ultimate decision for remediation for students in academic difficulty lies with that committee.

Clinic Attendance

If you are unable to attend a scheduled clinical session due to a medical or family emergency, you should contact the Academic Affairs Office at 612-624-3300 or dent.cas@umn.edu.

Disabilities

It is University of Minnesota policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in clinic activities or meet clinic requirements. Students are referred to the SOD's Office of Student Affairs and/or the University's Office of Disability Services for evaluation and determination of accommodations. To make an appointment for evaluation, please call Disability Services at 612-626-7379.

Summary of Periodontal Clinical Competency Evaluations

Once procedures have been practiced, students may elect to be evaluated for competency. The student should tell the faculty evaluator at the beginning of the session that he or she has elected to be evaluated. The evaluator will initial the competency form indicating that the patient is suitable for competency testing. **Root planing competencies can be undertaken only after first completing a minimum of three clinical sessions of root planing** (ADA Codes 4341, 4342, 4355).

Minimum Periodontal Competency Requirements:

Examination.....	1
Root planing.....	4
Re-evaluation after root planing.....	1
Maintenance recalls.....	1
Minimum Total.....	7

Remember that a qualified patient for “Mock Boards” during Spring Semester of the Fourth Year can count as a root-planing competency.

If you receive a score of 1 (Not Acceptable) performance grade on a competency, you must take and pass another competency of the same type.

The above requirements are **minimum** expectations for competency. It is to the student's benefit to do more than the minimum number of competency evaluations.

Each competency procedure will be evaluated as follows:

- 4 (A) = Excellent (meets all standards of excellence)
- 3 (B) = Acceptable (minor corrections needed)
- 2 (C) = Acceptable with modifications (acceptable but would suggest doing another competency of this type)
- 1 = Not acceptable (fundamental concepts/procedures not demonstrated)

During each periodontal procedure, the faculty will observe infection control, armamentarium, anesthesia, and patient management/professionalism procedures. Students must follow correct infection control protocols during all competencies. **Failure to follow appropriate protocols and procedures may result in failure (not acceptable) of the competency.**

Overview of required periodontal competencies

Periodontal Exam Competency

Exam competency patients should be **unfamiliar** to the students. Students should select patients who have not received a periodontal examination or recall at the School of Dentistry in at least the past two years and, preferably, should be new to the School. The patient must have at least **6 teeth with moderate periodontitis** (4-5 mm of attachment loss) with radiographically evident loss of bone support accompanied by an increase in tooth mobility and /or furcation involvement. Patients with advanced attachment loss (6 mm or greater) may also be used.

Scaling/Root Planing Competency

The student must choose five, six, seven or eight teeth with a total of at least 8 surfaces of explorer-detectable **subgingival** calculus. If possible the teeth should be in the same quadrant and should include both posterior and anterior teeth. Ultrasonic or sonic scalers may be used at the discretion of the student.

Re-evaluation (after Root Planing) Competency

Re-evaluation of a patient on which the treatment planned root planing has been completed, preferably by the student. Sufficient time should have elapsed since completion of the **last root planing session** for the healing response (generally **4-10 weeks**).

Periodontal Recall/Prophylaxis Competency

Ideally, the student should have completed the periodontal treatment and post root planing evaluation of the patient. The patient **must have both maxillary and mandibular teeth present** (and generally some anteriors and posteriors). Only one recall/prophylaxis competency can be completed on a given patient by a given student.

Patient acceptance for all competencies is at the discretion of the periodontal faculty.

Periodontal Exam Competency maybe completed in your COLOR GROUP with the periodontal consult DDS during a treatment planing session.

Competency Criteria for the Initial Periodontal Examination

1. Past Medical History and Past Dental History (including chief complaint) reviewed and recorded. Blood pressure and pulse recorded. Any periodontal chief complaint listed.
2. Extraoral and intraoral soft tissue exam (head and neck, adenopathy, lips, buccal mucosa, tongue, floor of mouth, palate and oropharynx) recorded and proper follow-up/referral suggested.
3. Describe any abnormal gingival conditions, color, inflammation, etc (location and severity).
4. Local irritants (amount and location: plaque, calculus (supra/subgingival), inadequate restorations, open contacts, tobacco use, etc.) recorded. Patient's oral hygiene status – good, fair, poor
5. Probing depths, recession and/or attachment levels, and furcation involvements recorded on the intraoral charting form.
6. Bleeding after probing recorded (circle probing depths in red).
7. Radiographic interpretation (discuss with examiner):
 - a. horizontal and/or vertical bone loss
 - b. furcation radiolucencies
 - c. abnormal PDL (periodontal ligament space) widths
 - d. periapical or osseous pathology
 - e. caries
 - f. others (root structure, impacted teeth, overhangs, etc.)
8. Explanation of etiology (primary and contributing **risk factors**) presented to the examiner (oral hygiene-plaque, calculus, tobacco use, systemic disease, medications, family history of periodontal disease, etc.).
9. Diagnosis accurately recorded and presented to examiner (**descriptive terminology** of diagnosis including severity (**Early, Moderate, Advanced**) and extent (general [$>30\%$] and/or local).
10. Prognosis recorded (overall prognosis as well as for individual teeth: **Good, Fair, Questionable, (Poor), and Hopeless**).
11. Proposed treatment plan documented.

Competency Criteria for Root Planing (Subgingival Debridement)

Criteria for **patient selection**:

The student must choose five, six, seven or eight teeth with a total of at least 8 surfaces of explorer-detectable **subgingival** calculus. If possible the teeth should be in the same quadrant and should include both posterior and anterior teeth. Ultrasonic or sonic scalers may be used at the discretion of the student. Only 4 surfaces of calculus may be counted on the mandibular incisors (#23-26).

The tooth number and surfaces of calculus are marked on the periodontal competency form for examiner approval prior to beginning the root planing procedures. At least 5 different teeth with a surface of calculus must be selected on the competency form. The selection of teeth (tooth) and surface(s) can be changed at instructor discretion with appropriate discussion. Although grading will occur for 8 surfaces, it is expected all tooth surfaces in the selected quadrant(s) will be appropriately root planed.

Plaque, stain, and supragingival calculus removal, as well as tissue management, will also be evaluated by the examiner.

Competency Criteria for Re-evaluation after Root Planing

1. **Sufficient time** should have elapsed since completion of the last session of root planing for the healing response (**4-10 weeks**).
2. **Medical history** has been reviewed and changes recorded. Record blood pressure and pulse.
3. **Soft tissue exam** completed.
4. Changes in **gingival condition** are recognized and recorded.
5. **Probing depths** (greater than 4 mm), **attachment loss or recession**, and **bleeding** after probing recorded. Requiring the recording of all parameters is at the discretion of the faculty evaluator.
6. **Mobility of the teeth** recorded.
7. Record the **local factors** that remain (plaque, calculus, occlusion, inadequate restorations, etc.). Students should identify and explain any etiologic and/or **risk (modifying) factors** that could not be eliminated or controlled.
8. Patient's **oral hygiene status** has been noted and recorded. Patient has been counseled on why and how to perform a personalized effective daily oral hygiene program.
9. Discuss with faculty the **indications** and **contraindications** for **future periodontal treatment** (systemic or local antibiotic delivery, referral to Grad Perio, periodontal surgery, additional root planing, continued maintenance, etc.) and recognize where those indications apply in the patient's mouth.
10. List future **treatment/maintenance plan** (procedures, time required, ADA codes and fees). Discuss with examiner factors that would influence future course of treatment.
11. Record all pertinent data and **SOAP the progress notes** prior to calling the examiner.

Do not perform any “cleaning” of the patient’s teeth until after the examiner has evaluated the competency. “Cleaning” is not required at this appointment but may be necessary depending on patient’s response and home-care.

Competency Criteria for Periodontal Recall/Prophylaxis

Both maxillary and mandibular teeth must be present.

1. **Be familiar with the patient's medical history** and note any **changes** in the **medical and dental history**. Evaluate and record the **blood pressure** and **pulse**.
2. Perform a **clinical examination** that includes:
 - a. Extraoral and intraoral soft tissue exam.
 - b. Gingival inflammation recorded -- location and severity.
 - c. Reprobing of the entire dentition with notation of **attachment loss (or recession levels) and all 4 mm or greater pocket depths** (this can vary at the discretion of the examiner). Recording of all pocket/sulcus depths should occur at least once every 2 years. Circle in red those probings with hemorrhage. Probing depths and attachment loss/recession levels should be compared to previous readings.
 - d. Tooth mobility and occlusal changes.
 - e. Rotation of local irritants.
 - f. Clinical caries exam.
 - g. Determination of the need for x-rays.
 - Bitewing radiographs every 1-2 years or as clinical parameters dictate.
 - Full mouth radiographs every 4-6 years or as clinical parameters dictate.
3. Determination of
 - a. changes in **diagnosis** – evaluate and note periodontal **stability status**.
 - b. changes in **prognosis**
 - c. changes in **etiology and risk factors**
4. **Assessment of oral hygiene** with demonstration of why and how to improve patient's ability to clean problem areas.
5. Perform thorough **periodontal debridement** followed by polishing. Use of antimicrobial agents (local delivery, systemic) when indicated.
6. Determine **treatment plan** for future therapy (periodontal and restorative-obtain appropriate consults). Determine appropriate **recall interval**.
7. Record all pertinent data and **SOAP the progress notes** prior to calling the examiner.

Periodontal Competency Evaluation Form
Division of Periodontology
School of Dentistry, University of Minnesota

Grading:

- Exam
- Root Planing
- Reevaluation
- Recall

	4	3	2	1	NA
Preparation					
Technique					
Procedure					
Evaluation of treatment outcomes					

Student Name _____

Student ID No. _____

Date: _____

Patient Name: _____

Start Approval; Faculty initial _____

4 = Excellent
 3 = Acceptable
 2 = Acceptable if modified
 1 = Unacceptable
 N/A = Not applicable to this procedure

Chart # _____

<u>Preparation</u>					
Medical and dental history, soft tissue exam	4	3	2	1	NA
Radiographic Interpretation	4	3	2	1	NA
Periodontal clinical exam and charting	4	3	2	1	NA
Diagnosis, prognosis, treatment plan	4	3	2	1	NA
Identification and management of etiologic/risk factors	4	3	2	1	NA
<u>Technique</u>					
Infection control	4	3	2	1	NA
Armamentarium	4	3	2	1	NA
Anesthesia	4	3	2	1	NA
Patient management/professionalism	4	3	2	1	NA
<u>Procedure</u>					
Subgingival calculus removal:	0-1	2-3	4	5+	NA
Tooth _____ Surface _____					
Tooth _____ Surface _____					
Tooth _____ Surface _____					
Tooth _____ Surface _____	4	3	2	1	NA
Tooth _____ Surface _____					
Tooth _____ Surface _____					
Tooth _____ Surface _____					
Plaque, stain, supragingival calculus removal	4	3	2	1	NA
Tissue trauma	4	3	2	1	NA
<u>Evaluation of Treatment Outcomes</u>					
Patient oral hygiene status	4	3	2	1	NA
Changes in etiology/risk factors	4	3	2	1	NA
Periodontal stability evaluation	4	3	2	1	NA
Recommended treatment plan	4	3	2	1	NA

Faculty Signature _____

Faculty ID _____

ADA INSURANCE CODE DESCRIPTIONS

01110 – Adult Prophylaxis – A dental prophylaxis performed on transitional or permanent dentition which includes scaling and polishing procedures to remove plaque, calculus and stains.

00274 – BWX – 4 films

04341 – Peridontal Scaling and Root Planing – per quadrant – This procedure involves instrumentation of the crown and root surfaces of the teeth to remove plaque and calculus from these surfaces. It is indicated for patients with periodontal disease and is therapeutic, not prophylactic, in nature.

04342 – Peridontal Scaling and Root Planing – one to three teeth per quadrant

04910 – Peridontal Maintenance Procedures (Following Active Therapy) – This procedure is for patients who have previously been treated for periodontal disease. Typically, maintenance starts after completion of active (surgical or non-surgical) periodontal therapy and continues at varying intervals, determined by the clinical diagnosis of the dentist, for the life of the dentition. It includes removal of the supra and subgingival microbial flora and calculus, site specific scaling and root planing where indicated, and/or polishing the teeth. When new or recurring periodontal disease appears, additional diagnostic and treatment procedures must be considered.

04355 – Full Mouth Debridement – The removal of subgingival and/or supragingival plaque and calculus that obstructs the ability to perform an oral evaluation.

04381 – Localized Delivery of Chemotherapeutic Agents – Delivery devices containing controlled release chemotherapeutic agent(s) are inserted into a periodontal pocket. The use of controlled-release chemotherapeutic agents is an adjunctive procedure for specific sites that are unresponsive to conventional therapy or for cases in which systemic disease or other factors preclude conventional or surgical therapy.

00120 – Periodic Oral Evaluation – Use for the charge for reevaluation appointment 4 – 10 weeks after completion of scaling and root planing

01204 – Topical Application of Fluoride – Topical application of fluoride for an adult patient.

09910 – Application of Desensitizing Medicament – In-office treatment for root sensitivity (fluoride varnish).