



NEW YORK CITY COLLEGE OF TECHNOLOGY

Dental Hygiene Department

Student Course Document

COURSE CODE & TITLE:	DEN 2318 / DEN 2318L Dental Materials / Dental Materials Laboratory
TERM:	Fall 2016
INSTRUCTORS:	Dr. L. Friedman / Prof. A. Lam / Prof. J. Campbell
CONTACT INFORMATION:	718.260.5070 lfriedman@citytech.cuny.edu/ alam@citytech.cuny.edu jcampbell@citytech.cuny.edu
OFFICE HOURS:	Posted on the bulletin board outside P-201
CLASS HOURS:	2 Per Week
LABORATORY HOURS:	2 Per Week
CREDITS:	2
PREREQUISITES:	CHEM 1000, DEN 1200
COREQUISITES:	DEN 2300; DEN2311
REQUIRED TEXTBOOK:	1. Clinical Practice of the Dental Hygienist. Wilkins, 12 th edition 2. Dental Materials, Properties and Manipulation. Craig, Powers, Wataha, Mosby, Inc., St. Louis (most recent edition)

Course Description:

The study of sources, physical and chemical characteristics of materials used in dentistry. To acquaint the student with the chemical and physical properties of those dental materials and devices which are most commonly used in dental practice. Emphasis is placed on how such properties may affect the care and manipulation of those materials and devices. To understand the properties of materials as they relate to the clinical practice of the dental hygienist is stressed.

The laboratory portion of this course will offer the student clinical and laboratory experience in the manipulation and application of dental materials commonly used in operative, restorative and preventive procedures.

Evaluation Procedures

DEN2318 AND DEN2318L are graded independently. **BOTH** must be passed to pass this course.

Course Assessment Method

DEN2318 (70% of Final Grade)	
A. Unit examinations (3)	25% each
B. Final Examination	<u>25%</u>
	100%

DEN2318L (30% of Final Grade)	
A. Laboratory Exercises	25%
	weighted to reflect time required to complete
B. Unit Examinations (3).....	15% each
C. Study Model Project	20%
D. GNYDM Assignment	5%
E. Class Participation, professionalism & ethics	<u>5%</u>
	100%

* Up to 10% may be deducted from the final grade for unprofessional or unethical behavior in either DEN 2318 or DEN2318L

College Attendance Policy

A student may be absent without penalty for 10% of the number of scheduled class meetings during the semester.

DEN 2318 meets 1 time/week, the allowable absence is 2 classes.

In addition to College Attendance Policy, Dental Hygiene Department policy on attendance includes lateness or missing any part of a class meeting three times = 1 absence.

Lateness

Punctuality is an important part of being a professional. Occasionally circumstances may occur which affect ones being on time. An occasional lateness is understood. The lateness policy is for students who are habitually or chronically late.

Students who are late for:

7 class meetings:	-1 point off their final course grade
8 class meetings:	-5 points off their final course grade
9 or more class meetings:	-10 points off their final course grade

Professionalism

As per the Dental Hygiene Student Manual, the following will be taken into consideration in determining the

final grade: rapport with instructors and peers; punctuality; adherence to established procedures and behaviors determined to be either unethical or unprofessional (disruptive behaviors or cheating). **10 points will be deducted from the final grade for noncompliance with the above standards of professionalism and in the event that is point value deduction creates a grade below 70, the student will follow the Dental Hygiene course repeat policy in the student manual.**

Make-Up Examinations

If you miss an examination, please contact me by phone or e-mail within 24 hours of the class meeting time to arrange for a make-up. 718-260-5070.

If I do not hear from you within that time, you will not get a grade for that exam.

Dental Hygiene Department Policy on Retesting

No student in any Dental Hygiene course will be retested in any examination for any reason. A failing grade on a quiz / examination will remain and be averaged with all other course grades.

New York City College of Technology Policy on Academic Integrity

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.

Course Requirements

- A. Assigned readings.
- B. Satisfactory completion of each laboratory exercise with a minimum grade of “C” after 3 attempts. Passing after 3 attempts will result in a grade no higher than a “C” for that exercise.
- C. Please see the student clinical manual for department policies on attendance, punctuality, attire, professional behavior and pregnancy.

Learning Experience

This course will utilize several approaches to teaching including but not limited to BlackBoard, PowerPoint, group discussions, and lecture in order to accomplish the stated objectives.

DEN 2318 Course Outline

UNIT I:	History and Background
UNIT II:	Physical and Mechanical Properties
UNIT III:	Gypsum
UNIT IV:	Impression Materials Overview
UNIT V:	Zinc Oxide Eugenol
UNIT VI:	Hydrocolloids
UNIT VII:	Rubber Bases
UNIT VIII:	Acrylic Resins
UNIT IX:	Metals
UNIT X:	Tarnish and Corrosion
UNIT XI:	Amalgam
UNIT XII:	Gold Alloys
UNIT XIII:	Dental Cements

Dental Hygiene Competencies

Upon completion of the DEN 2318 course, the dental hygiene student will be able to:

Core

- C.2 Adhere to state and federal laws, recommendations, and regulations in the provision of dental hygiene care.
- C.4 Use evidence-based decision making to evaluate and incorporate emerging treatment modalities.
- C.5 Assume responsibility for dental hygiene actions and care based on accepted scientific theories and research as well as the accepted standard of care.
- C.8 Provide quality assurance mechanisms for health services.

Health Promotion and Disease Prevention

- HP.6 Evaluate and utilize methods to ensure the health and safety of the patient/client and the dental hygienist in the delivery of dental hygiene.

Patient/Client Care

- PC.1b Recognize predisposing and etiologic risk factors that require intervention to prevent disease.
- PC.5c Provide subsequent treatment or referrals based on evaluation findings.

UNIT I

History and Background **Discipline Knowledge, Discipline Skill**

1. Recognize the role that Pierre Fauchard, G.V. Black played in the progress of dentistry. (C5)
2. Describe the activities of the National Bureau of Standards and how they relate to and affect the manufacture of dental products. (C2) (C4) (C5)
3. Enumerate the similarities and differences between A.D.A., Federal and International specifications. (C2)
4. Identify and describe the following physical and biological conditions and their effect on the choice of a restorative material. (C5) (C8) (HP6)
 - a) Physical Considerations
 - 1) Biting forces
 - 2) Temperature changes
 - 3) Acidity
 - b) Biological Considerations
 - 1) Microleakage
 - 2) Temperature effects
 - 3) Galvanism
 - 4) Toxic effects of materials
5. Classify restorative materials as (C4) (C5) (C8)
 - 1) Permanent restorations
 - 2) Temporary restorations
 - 3) Intermediary bases
6. List the differences between crystalline and amorphous space lattice structures. (C4)
7. Define wetting and describe the factors that influence it. (C4)
8. Define stress and strain and explain their relationship to each other. (C4)
9. Define and explain the importance of: permanent strain, elastic limit, Hooke's Law, Young's Modulus and ultimate strength. (C4)
10. Explain the importance of a high modulus of elasticity in dental restorative materials. (C8)

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning, Reading

UNIT II

Physical and Mechanical Properties **Discipline Knowledge, Discipline Skill**

1. Define and describe ductility and malleability. (C4)
2. Define two types of flow and give one example of each. (C4)
3. Define hardness and describe a method for measuring it. (C4)
4. Explain relaxation. (C4)
5. Describe and discuss thermal expansion and thermal conductivity; explain their importance to the dentist when choosing materials for restorations and appliances. (C4) (C5) (C8)

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UNIT III

Gypsum **Discipline Knowledge, Discipline Skill**

1. Discuss the manufacture of dental plaster and how and when it is used in dentistry. (C4) (C5) (C8)
2. Define the following terms: (C4) (C5)
 - a. Gypsum

- b. Dihydrate
- c. alpha hemihydrate, beta hemihydrate
- 3. Explain the setting reaction of hemihydrate. (C4)
- 4. Explain water/powder ratio (W/P), setting time, setting expansion and strength; their importance and how to control them through proper proportioning. (C4)
- 5. Describe differences between impression plaster and model plaster. (C4)
- 6. Discuss dental stone; its properties, types and uses. (C4)

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UNIT IV

Impression Materials Overview **Discipline Knowledge, Discipline Skill**

1. Discuss the development of impression materials. (C4) (C5)
2. Classify the different types of impression materials. (C4)
3. Describe the development of impression compound. (C4)
4. Discuss the use and composition of tray compound. (C4) (C5)
5. Discuss the importance of the thermal conductivity of compound. (C4) (C5) (C8)
6. Explain flow of impression compound. (C4) (C5) (C8)
7. Explain distortion of impression compound and its relationship to stress. (C4) (C5) (C8)

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UNIT V

Zinc Oxide Eugenol **Discipline Knowledge, Discipline Skill**

1. Explain types and uses of impression pastes. (C4) (C5) (C8)
2. Describe the composition and chemistry of Zinc Oxide impression paste. (C4)
3. Discuss the setting time, fluidity/consistency and dimensional stability of Zinc Oxide impression paste. (C4)
4. Identify surgical pastes. (C4)

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UNIT VI

Hydrocolloids **Discipline Knowledge, Discipline Skill**

1. Explain with respect to reversible hydrocolloids: (C4) (C5) (C8)
 - a. Composition and chemistry
 - b. Conditioning
 - c. Dimensional stability
 - 1) Syneresis
 - 2) Imbibition
2. Explain with respect to irreversible hydrocolloids: (C4) (C5) (C8)
 - a. Composition and chemistry
 - b. Shelf life
 - c. Manipulation

- d. Dimensional stability
3. Discuss causes for common difficulties experienced with reversible and irreversible hydrocolloids. (C4) (C5) (C8)

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UNIT VII

Rubber Bases **Discipline Knowledge, Discipline Skill**

1. Discuss the composition and chemistry of Polysulfide and Silicone rubber base materials. (C4) (C5) (C8)
2. Identify the shelf life for each. (C4) (C5) (C8)
3. Describe the other types of rubber base impression materials and outline the spatulation, setting time, dimensional stability, and causes of common difficulties for each. (C4) (C5) (C8)

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UNIT VIII

Acrylic Resins **Discipline Knowledge, Discipline Skill**

1. Discuss and compare denture base resins. (C4) (C5) (C8)
2. Define and explain Polymerization. (C4)
3. Define acrylic resin; cross linking; copolymerization. (C4)
4. List the physical properties and structure of polymethylmethacrylate. (C4)
5. List the steps in the construction of a denture. (C4) (C5) (C8)
6. Explain the care of any allergic reaction to a denture base material. (C8) (HP6) (PC1b) (PC5c)
7. Explain the importance of synthetic resins as a restorative material. (C4) (C5) (C8)
8. Describe the insertion techniques of resins. (C4) (C5) (C8)
9. Identify the characteristics and uses of composite resins. (C4) (C5)
10. Compare composite and acrylic resins listing the advantages and disadvantages of each. (C4) (C5)
11. Compare resin restorations with silicate cement restorations. (C4) (C5)
12. Describe the resins used in crown and bridge construction. (C4) (C5)

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UNIT IX

Metals **Discipline Knowledge, Discipline Skill**

1. Define the term "metal" (C4)
2. Explain the casting procedure in terms of: (C4) (C5)
 - a. Solidification of metals
 - b. Classification of metals
 - c. deformation of metals
3. Describe strain hardening, recrystallization and effects of grain size. (C4) (C8)
4. Discuss direct filling gold restorative materials including their description and physical properties. (C4) (C5)
5. List the types of alloys and their physical and mechanical properties. (C4)

6. Discuss the meaning of heat treatment and its effect on dental gold alloys. (C4) (C8)
7. Explain how strain hardening, alloying and heat treatment affect the properties of a dental gold alloy. (C4) (C8)
8. Identify wrought alloys and their general properties. (C4) (C8)

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Reading

UNIT X

Tarnish and Corrosion **Discipline Knowledge, Discipline Skill**

1. Describe the difference between tarnish and corrosion. (C4)
2. List and explain the types of corrosion. (C4)
3. Define Galvanic currents and their clinical significance. (C4) (C5) (C8) (HP6)

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning,
Reading

UNIT XI

Amalgam **Discipline Knowledge, Discipline Skill**

1. Define the term “dental amalgam”. (C4)
2. Discuss the amalgam restoration. (C4)
3. Describe the composition and manufacture of amalgam alloys. (C4)
4. Explain the characteristics of spherical alloys. (C4)
5. Discuss the importance of the “strength factor”. (C4)
6. Describe: proportioning, trituration, amalgamation, condensation and marginal breakdown. (C4)
7. Discuss the effects of moisture contamination and the importance of polishing. (C4) (C5) (C8) (HP6)

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Reading

UNIT XII

Gold Alloys **Discipline Knowledge, Discipline Skill**

1. Define and compare the karat, fineness and percentage of gold alloys. (C4)
2. Discuss the composition of gold alloys including the general effects of each constituent. (C4)
3. Discuss effects of heat treatment. (C4) (C5) (C8)
4. List and classify dental gold casting alloys. (C4)
5. Discuss casting shrinkage, porosity and the re-melting of casting alloys. (C4) (C5) (C8)
6. Discuss inlay wax preparation, composition and properties. (C4) (C5) (C8)
7. Describe the factors that may cause distortion of the wax pattern and failure of the casting. (C4) (C5) (C8)
8. State 4 common casting defects and their causes. (C4) (C8)
9. Describe the composition of and investment and the importance of each component. (C4) (C5)
10. Describe the factors associated with: setting time, setting expansion, hygroscopic expansion, strength, fineness and porosity of an investment. (C4) (C5) (C8)

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Reading

UNIT XIII

Dental Cements **Discipline Knowledge, Discipline Skill**

1. Describe and classify dental cements and list their uses. (C4) (C5) (C8)
2. Describe the composition of silicate cement and the factors involving its setting time, stability, solubility, strength, hardness and discoloration. (C4) (C5) (C8)
3. Explain the common causes of failure with silicate cements. (C4) (C5) (C8)

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NYCCT General Education Competencies – derived for General Education Learning Outcomes

4. Ethical Reasoning – Ethical reasoning is a reasoning about right and wrong human conduct. It requires students to be able to assess their own ethical values and the social context of problems, recognize ethical issues in a variety of settings, think about how different ethical perspectives might be applied to ethical dilemmas and consider the ramifications of alternative actions. Students' ethical self-identity evolves as they practice ethical decision-making skills and learn how to describe and analyze positions on ethical issues.
5. Foundations and Skills for Lifelong Learning – 'all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence'. An endeavor of higher education is to prepare students to be this type of learning by developing specific dispositions and skills described in this rubric while in school.
12. Reading – Reading is the process of simultaneously extracting and constructing meaning through interaction and involvement with written language.

DEN 2318L / Dental Materials Laboratory

Course Description:

The laboratory exercises of the course offer the student clinical and laboratory experience in the manipulation and application of dental materials commonly used in operative, restorative, and preventive procedures.

Evaluation Procedures

- Students are required to pass BOTH DEN 2318 (Dental Materials) and DEN 2318L in order to receive a passing grade for the course.
- A minimum grade of 70% (C) is needed to pass the course DEN 2318L.
- DEN 2318L is 30% of the total grade of the DEN 2318 course grading.

Course Assessment Method

Laboratory Exercises	25%
Unit Examination (3)	45%
Study Model Project	20%
GNYDM Assignments	5%
Class Participation/Professionalism	5%

College Attendance Policy

A student may be absent without penalty for 10% of the number of scheduled class meetings during the semester.

DEN 2318L meets 1 time/week, the allowable absence is 2 classes.

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Lateness

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Students who are late for:

7 class meetings:	-1 point off their final course grade
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Professionalism

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Course Requirements

1. Satisfactory completion of each laboratory exercise after 3 attempts.
2. Adhere to the student clinical manual for department policies on attendance, punctuality, attire, and professional behavior.
3. Attend the Greater New York Dental Meeting.

Learning Experience

This course will utilize several approaches to teaching including but not limited to BlackBoard, PowerPoint, group discussions, and lecture in order to accomplish the stated objectives.

DEN 2318L Course Outline

- UNIT I: Rubber Dam and Cotton Roll Isolation
- UNIT II: Pit and Fissure Sealants
 - A. Self-cured
 - B. Light-cured
- UNIT III: Alginate Impressions and Study Models
- UNIT IV: Rubber Base Impression Materials
 - A. Polysulfide
 - B. Silicone
 - C. Polyether
 - D. Poly Vinylsiloxane
- UNIT V: Bases and Liners
 - A. Varnishes
 - B. Calcium Hydroxide
 - C. Cements
- UNIT VI: Temporary Restorations
- UNIT VII: Composite Resins (Tooth Colored Restorative Material)
- UNIT VIII: Cleaning Removable Prosthetic Restorations
- UNIT IX: Tooth Whitening / Dental Specialties
- UNIT X: Periodontal Dressings and Sutures
- UNIT XI: Matrix Bands and Retainers
- UNIT XII: Polishing Restorations

Dental Hygiene Competencies

Upon completion of the DEN 2318L course, the dental hygiene student will be able to:

Core

- C.2 Adhere to state and federal laws, recommendations, and regulations in the provision of dental hygiene care.
- C.4 Use evidence-based decision making to evaluate and incorporate emerging treatment modalities.
- C.5 Assume responsibility for dental hygiene actions and care based on accepted scientific theories and research as well as the accepted standard of care.
- C.8 Provide quality assurance mechanisms for health services.

Health Promotion and Disease Prevention

- HP.5 Evaluate factors that can be used to promote patient/client adherence to disease prevention and/or health maintenance strategies.
- HP.6 Evaluate and utilize methods to ensure the health and safety of the patient/client and the dental hygienist in the delivery of dental hygiene.

Patient/Client Care

- PC.1b Recognize predisposing and etiologic risk factors that require intervention to prevent disease.
- PC.5c Provide subsequent treatment or referrals based on evaluation findings.

UNIT I

Rubber Dam and Cotton Roll Isolation **Discipline Knowledge, Discipline Skill**

1. State the rationale for the use of a rubber dam. (C2) (C4) (PC1b)
2. Assemble, place and remove a rubber dam according to stated procedures. (C2) (C8) (HP5) (HP6)
3. Discuss the rationale for cotton roll isolation. (C2) (C4) (PC1b)

Extent: 100% accuracy within three attempts.

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning, Reading

UNIT II

Pit and Fissure Sealants **Discipline Knowledge, Discipline Skill**

1. Give the rationale for the use of pit and fissure sealants. (C2) (C4) (HP5) (PC1b) (PC5c)
2. Identify the basic procedures involved in the pit and fissure sealant applications. (C2) (C4) (HP6)
4. Select and prepare the armamentaria for the placement of a sealant. (C5) (C8) (HP6)
5. Prepare and place a pit and fissure sealant in correctly etched tooth according to Stated criteria. (C4) (HP5) (HP6)

Extent: 100% accuracy in two weeks.

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning, Reading

UNIT III

Alginate Impressions **Discipline Knowledge, Discipline Skill**

1. Prepare the patient for taking impressions using proper patient positioning and techniques. (C2) (C4) (HP5) (HP6)
2. Discuss methods of preventing patient apprehension and gagging. (HP6)
3. Deliver loaded impression trays to mouth and seat properly without impinging on soft tissue. (HP6)
4. Identify an acceptable impression. (C2) (C4) (C5)
5. Properly disinfect impression. (HP6)
6. Prepare a study cast according to stated criteria. (C2) (C4) (C5)
7. Maintain aseptic technique throughout the whole procedure. (HP6)

Extent: 100% accuracy within three attempts.

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning, Reading

UNIT IV

Rubber Base Impression Materials **Discipline Knowledge, Discipline Skill**

1. List the different types of impression materials. (C2) (C4) (C5)
2. Discuss the properties of each material. (C4)
3. Classify the impression materials according to their uses. (C4) (C5)
4. Prepare and mix impression materials according to stated criteria. (C2) (C4) (C5)

Extent: 100% accuracy within three attempts.

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning,
Reading

UNIT V

Bases and Liners **Discipline Knowledge, Discipline Skill**

1. List the uses of bases and liners. (C2) (C4) (C5)
2. Classify bases and liners according to their uses. (C4) (C5)
3. Discuss the effect of manipulative variables in the properties of each material. (C4) (C5) (HP6)
4. Mix various materials properly according to stated criteria. (C2) (C4) (C5)

Extent: 100% accuracy within three attempts

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning,
Reading

UNIT VI

Temporary Restorations **Discipline Knowledge, Discipline Skill**

1. State the rationale for the use of a temporary restoration. (C2) (C4) (C5)
2. List different types of temporary restorations. (C4) (C5)
3. Select and assemble appropriate armamentaria. (C5) (HP6) (PC1b) (PC5c)

Extent: 100% accuracy within three attempts.

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning,
Reading

UNIT VII

Composite Resins (Tooth Colored Restorative Material) **Discipline Knowledge, Discipline Skill**

1. List the various esthetic restorative materials. (C4) (C5)
2. Discuss the effect of various manipulative variables on the properties of various esthetic restorative materials. (C4) (C5) (HP6)
3. Prepare an esthetic restorative material according to stated criteria. (C2) (C4) (C5)

Extent: 100% accuracy within three attempts.

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning,
Reading

UNIT VIII

Cleaning Removable Prosthetic Restorations **Discipline Knowledge, Discipline Skill**

1. Explain the rationale for cleaning removable prosthetic restorations. (C2) (C4) (C5)
2. Demonstrate the cleaning of a removable prosthetic restoration according to stated procedures. (C2) (C4) (C5)
3. Adhere to the OSHA Guidelines for asepsis and infection control. (C2) (HP6)

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Reading

UNIT IX

Tooth Whitening **Discipline Knowledge, Discipline Skill**

1. State the rationale for the use of bleaching products. (C2) (C4) (C5)
2. List the compositions of professional and over-the-counter bleaching products. (C4) (C5)
3. Describe various types of bleaching procedures. (C4) (C5)
4. Identify the common side effects of using bleaching products. (C4) (C5) (HP6)

Dental Specialties **Discipline Knowledge**

1. List the nine types of dental specialties. (C2)
2. State the oldest recognized dental specialties. (C2)
3. Describe various types of dental specialties. (C2)
4. Make referral to appropriate dental specialties. (C5) (HP5) (HP6)

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning,
Reading

UNIT X

Periodontal Dressings and Sutures **Discipline Knowledge, Discipline Skill**

1. Describe the rationale for the use of a periodontal dressing. (C2) (C4) (C5)
2. List different types of periodontal dressings. (C4) (C5)
3. Prepare, place and remove a periodontal dressing according to stated procedures.
(C2) (C4) (C5)
4. List different types of suture patterns. (C4) (C5)
5. Remove a suture according to stated criteria. (C2) (C4) (C5)

Extent: 100% accuracy within three attempts.

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Reading

UNIT XI

Matrix Bands and Retainers - Tofflemire and Celluloid **Discipline Knowledge, Discipline Skill**

1. Select the proper material to assemble a matrix band and retainer unit.
(C2) (C4) (C5) (HP6) (PC1b)
2. Identify different types of matrix bands and retainer units. (C4) (C5)
3. Place and remove a matrix band according to stated criteria. (C2) (C4) (C5)
4. Discuss the importance of a wedge. (C2) (C4) (C5)

Extent: 100% accuracy within three attempts.

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning,
Reading

UNIT XII

Polishing Restorations **Discipline Knowledge, Discipline Skill**

1. List and describe various finishing and polishing agents used in dentistry. (C4) (C5)
2. Discuss the rationale for polishing intra-oral restorations. (C2) (C4) (C5)
3. Describe techniques for polishing amalgam and resin restorations according to

stated procedures. (C2) (C4) (C5)

Extent: 100% accuracy within three attempts.

Gen Ed SLO'S: Ethical Reasoning, Foundations and Skills for Lifelong Learning,
Reading

NYCCT General Education Competencies – derived for General Education Learning Outcomes

4. Ethical Reasoning – Ethical reasoning is a reasoning about right and wrong human conduct. It requires students to be able to assess their own ethical values and the social context of problems, recognize ethical issues in a variety of settings, think about how different ethical perspectives might be applied to ethical dilemmas and consider the ramifications of alternative actions. Students' ethical self-identity evolves as they practice ethical decision-making skills and learn how to describe and analyze positions on ethical issues.
5. Foundations and Skills for Lifelong Learning – ‘all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence’. An endeavor of higher education is to prepare students to be this type of learning by developing specific dispositions and skills described in this rubric while in school.
12. Reading – Reading is the process of simultaneously extracting and constructing meaning through interaction and involvement with written language.