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DHYG 1030 Dental Materials
COURSE SYLLABUS
Spring Semester 2018

COURSE INFORMATION

Credit Hours/Minutes: 2 Semester Credit Hours and 2250 minutes
Class Location: Room # 906, Health Sciences Annex C
Class Meets: Mondays 1:00-3:40pm
CRN: 40207

INSTRUCTOR CONTACT INFORMATION

Course Director: Lori DeFore, RDH, BS, BTh
Additional Lab Instructor: Melanie Bryson, RDH, BS
Office Location: Room # 909, Health Sciences Annex C
Office Hours: Mondays: 7:30-8:00am; 1:00-1:30pm; 3:40-5:30pm
Tuesdays: 7:30-8:00am; 10:40-11:00am; 1:30-5:30pm
Wednesdays: 7:30-8:00am; 5:00-5:30pm
Thursdays: 12:30-1:50pm
Email Address: Lori DeFore (ldefore@southeasterntech.edu)
Phone: 912-538-3251
Fax Number: 912-538-3278

SOUTHEASTERN TECHNICAL COLLEGE'S (STC) CATALOG AND STUDENT HANDBOOK

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's Catalog and Student Handbook (http://www.southeasterntech.edu/student-affairs/catalog-handbook.php).

REQUIRED TEXT

Dental Materials Foundations and Applications**,** 11th ed. Powers and Wataha. 2017. Elsevier.

Case Studies in Dental Hygiene**,** 3rd ed. Thomson. 2013. Pearson.

REQUIRED SUPPLIES & SOFTWARE

Plastic cutting board, pen, pencil, paper, highlighter, instrument kit, supply kit purchased in Fall 2017.

COURSE DESCRIPTION

This course focuses on the nature, qualities, composition, and manipulation of materials used in dentistry. The primary goal of this course is to enhance the student's ability to make clinical judgments regarding the use and care of dental materials based on how these materials react in the oral environment. Topics include: dental material standards, dental material properties, impression materials, gypsum products, mouthguards, whitening systems, dental bases, liners, cements, temporary restorations, classifications for restorative dentistry, direct restorative materials, indirect restorative materials, polishing procedures for dental restorations, removable dental prostheses, sealants, and implants.

MAJOR COURSE COMPETENCIES

1. Dental material standards
2. Dental material properties
3. Impression materials
4. Gypsum products
5. Mouth guards and whitening systems
6. Dental bases, liners, and cements
7. Temporary restorations
8. Classifications for restorative dentistry
9. Direct restorative materials
10. Indirect restorative materials
11. Polishing procedures for dental restorations
12. Removable dental prostheses
13. Sealants
14. Implants

PREREQUISITE(S)

Program Admission

GENERAL EDUCATION CORE COMPETENCIES

STC has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

STUDENT REQUIREMENTS

Students are responsible for the policies and procedures in the Southeastern Technical College (STC) E-Catalog, Dental Hygiene Program Handbook, and Dental Hygiene Clinic Manual. During an examination, the following procedures must be followed: All books and personal belongings must be placed at the back of the classroom. Students will be asked to rotate seats prior to the beginning of the test. Test proctor will personally examine each desk to ensure that no writing is present on desk. Computer monitors should be facing the front of the classroom during test. When a student completes the test, he/she may raise hand and turn paper in to proctor. Student must remain in seat until test time is complete to avoid distracting other students. Students who have completed testing should be as quiet as possible and avoid any activity that might make those students who are still testing feel pressured or rushed. Students may not go to the

bathroom during the test session. Test proctor must observe students at all times and notify students when there are ten remaining minutes left of the total exam time. Test proctor should routinely walk around classroom and observe testing. Test proctor should refrain from grading papers, reading materials, or using computer during the test. Students caught with cheat sheets or cell phones will be considered cheating and a zero will be issued for the examination. The STC academic dishonesty policy will be enforced. Once the test begins, no talking is allowed. Once the test begins, tardy students may not enter the classroom.

Students are expected to exhibit professional behavior at all times. Each student must show respect and concern for fellow students and for the course instructors. Insubordination will not be tolerated, and disciplinary measures will be enacted. No cell phones or smart electronic devices are allowed to be turned on in the classroom, clinic, or locker area. If a student is observed in possession of his/her cell phone or smart electronic device during class, a critical incident will be issued. A student cannot use his/her cell phone or smart electronic device during class. There are no exceptions to this rule and do not ask. If you have a personal situation going on, please advise your instructor and give your family the clinic receptionist's phone number for emergency contact. You should not have your cell phone or smart electronic device in the class! Personal phone calls must be handled after class.
By completing the assignments below prior to class, students will become familiar with course material prior to classroom facilitation. As a result, higher-level learning will be fostered in the classroom.

1. Read the assigned chapter(s) and be prepared to actively participate in class discussions and activities.
2. Complete any assignments or homework given by the course director.
3. Complete and know the learning objectives for each topic.
4. View any videos applicable to dated lesson plan material.
5. Obtain materials from the course Materials Drive: M/Dental Hygiene/DHYG 1030. Prior to class, print any materials available to be used in this class for study and during lecture and/or lab.
6. Students are advised to check their e-mails regularly for any additional information that is related to the class or the Dental Hygiene Program.

ATTENDANCE GUIDELINES

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and also interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus. Students who stop attending class, but do not formally withdraw, may receive a grade of "F" (Failing 0-59) and face financial aid repercussions in upcoming semesters. Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor. Excused absences will be evaluated on a case-by-case basis by the program director. Examples of excused absences would be a car accident on the way to class or unexpected hospitalization of the student. Please do not plan a vacation or schedule a routine medical/dental appointment during the designated class times. Unexcused absences will not be made up and may lead to the student's failure of the course. Program director must be notified of any absences prior to scheduled class session.

Attendance is counted from the first scheduled class meeting of each semester. To receive credit for a course, a student must attend at least 90% of the scheduled instructional time. Assignments missed due to tardiness

or absences must be made up at the convenience of the instructor. Any student attending less than the required scheduled instructional time (90%) may be dropped from the course as stated below in the Withdrawal Procedure. Tardy means arriving after the scheduled time for instruction to begin. Early departure means leaving before the end of the scheduled time. Three (3) tardies or early departures equal one (1) absence for the course. **For this class, which meets 1 session per week for 15 weeks, the maximum number of sessions a student may miss for attendance purposes is 2 sessions during the semester.**

ADDITIONAL ATTENDANCE GUIDELINES FOR HEALTH SCIENCES

Requirements for instructional hours within Health Science programs reflect the rules of respective licensure boards and/or accrediting agencies. Therefore, these programs have stringent attendance policies. Each program's attendance policy is published in the program's handbook and/or syllabus which specify the number of allowable absences. All provisions for required make-up work in the classroom or clinical experiences are at the discretion of the instructor.

SPECIAL NEEDS

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Helen Thomas (hthomas@southeasterntech.edu), 912-538-3126, to coordinate reasonable accommodations.

SPECIFIC ABSENCES

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

PREGNANCY

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please advise me and make appropriate arrangements with Helen Thomas (hthomas@southeasterntech.edu), 912-538-3126.

WITHDRAWAL PROCEDURE

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" (Withdrawn) is assigned when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of "F" being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid

for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be accessed due to the withdrawal. All grades, including grades of “W” will count in attempted hour calculations for the purpose of Financial Aid.

Remember - Informing your instructor that you will not return to his/her course does not satisfy the approved withdrawal procedure outlined above.

MAKEUP GUIDELINES

Students are allowed to make up only one missed exam excluding the final examination. This is only if they have an excused absence approved by the instructor. The make-up exam may be given in a different format than the original exam. A doctor’s excuse and/or additional documentation will be requested. Ten points will be deducted from the test for taking the test late. All other missed exams/quizzes/class preparation assessments will result in a grade of zero “0”. If you enter the classroom late, you will not be allowed to take the exam, and you will be issued a grade of zero “0” for the exam. PLEASE be on time! Projects are due on the date specified on the lesson plan at the start time of the class. Projects will not be accepted late for any reason!

Failure to complete homework assignments will result in one point being deducted from the final course grade for each assignment not completed by the deadline specified. Late or incomplete assignments will still need to be completed and turned in for instructor review and feedback. If you are going to be absent, you should deliver your assignment to your instructor prior to the deadline to ensure credit.

ACADEMIC DISHONESTY POLICY

The Southeastern Technical College Academic Dishonesty Policy states that all forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the Southeastern Technical College Catalog and Student Handbook.

PROCEDURE FOR ACADEMIC MISCONDUCT

The procedure for dealing with academic misconduct and dishonesty is as follows:

1. **First Offense**
   Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.
2. **Second Offense**
   Student is given a grade of "WF" (Withdrawn Failing) for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.
3. **Third Offense**
   Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The

Registrar will input the incident into Banner for tracking purposes.

STATEMENT OF NON-DISCRIMINATION

The Technical College System of Georgia and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member or citizenship status (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer	**Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer**
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1st Street, Vidalia Office 108 Phone: 912-538-3126 Email: Helen Thomas hthomas@southeasterntech.edu	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1st Street, Vidalia Office 138B Phone: 912-538-3147 Email: Blythe Wilcox bwilcox@southeasterntech.edu

GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on Southeastern Technical College's website.

ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the Southeastern Technical College (STC) Website (www.southeasterntech.edu).

TECHNICAL COLLEGE SYSTEM OF GEORGIA (TCSG) GUARANTEE/WARRANTY STATEMENT

The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.

INSTRUCTIONAL DELIVERY METHODS

The following methods will be utilized to facilitate learning in lecture sessions. Sessions may employ PowerPoint presentations with handouts, workbook activity sheets, homework assignments, multimedia

presentations, group discussions, independent reading assignments, research activities, interactive websites, games, and group collaboration.

EVALUATION PROCEDURES

EXAMS

Exam #1: Chapters 1-3
Exam #2: Chapters 4-7
Exam #3: Chapters 8-11
Exam #4: Chapters 12-15
Exam #5: Final Comprehensive Chapters 1-15
All exam dates are noted in the course syllabus. No make-up exam will be allowed for the final examination. Failure to take the final examination on the specified date will result in a grade of zero. The final exam will cover Chapters 1-15. A total of 100 points may be earned on each examination. Homework assignments are noted in the syllabus and due each lecture session at the beginning of class start time. Each assignment that is not completed in the specified timeframe will result in a one-point deduction from the final course grade.

SKILL EVALUATIONS

(7 total skill evaluations in Dental Materials Laboratory)

Lab Skill Evaluations
1. Acid Etch Sealant
2. L-Pop Sealant
3. Alginate Impressions
4. Gypsum Stone Model
5. Mouthguard
6. Whitening Tray
7. Whitening Delivery

TEXT CHAPTERS FOR SKILL EVALUATIONS

Chapter 3
1. Placing Acid Etched Sealant
2. Placing L-Pop Sealant
3. Fabrication of Vacuum-Formed Mouth Protector

Chapter 8
4. Taking Alginate Impressions
5. Pouring of Alginate Impressions into Gypsum Model

Chapter 6
6. Fabrication of Vacuum-Formed Whitening Trays
7. Delivery of Whitening Trays and Tooth Whitener Application Protocol

LAB SESSIONS AND LAB PROTOCOL

Laboratory assignments and worksheets may be assigned throughout the semester. The assignments will not

receive a numerical grade. They are intended to give students additional practice in dental materials. The instructor will verify that each assignment is completed as well as give feedback. Each assignment that is not completed in the specified timeframe will result in a one point deduction from the final course grade. An infraction can be issued during laboratory sessions as stated in the dental hygiene program clinic manual. Each infraction will result in a one point deduction from the final course grade.

Following a demonstration of each skill evaluation by the course director and/or additional lab instructor, the student shall complete a practice self-attempt and a peer evaluation prior to attempting the individual skill evaluation for a final grade. The student will have two (2) attempts to pass the skill evaluation at 100%. Failing to maintain the learning environment during lab sessions or practice sessions will result in an infraction or critical incident. A no talking/no visiting rule is expected to be practiced in all dental laboratory sessions. The dental materials laboratory skill evaluations are "Pass or Fail". Students must achieve 100% on each lab skill evaluation on the first attempt or remediation will be required prior to the second/final attempt of the skill. The student will begin with a 30 point deduction if a second/final attempt is necessary. Remediation will consist of a minimum of two hours of additional practice during the scheduled practice time. Students will be allowed two attempts to reach 100% competency. The following list of attempts illustrates the grade that will be issued for the first and second/final attempts.

First Attempt = 100 is the grade for 100% competency
Second/Final Attempt = 70 is the grade for 100% competency

If a student fails to achieve 100% on the lab skill evaluation at the end of the second/final attempt, the student will be given a zero for the skill evaluation. The student will also be assigned an "F" (Failing 0-59) for the final course grade, and the student will not be allowed to proceed in the dental hygiene program. If a student misses a skill evaluation due to an approved absence from the program director, they will receive a grade of zero on the skill evaluation. Students are not allowed to make up skill evaluations. However, the student must demonstrate 100% competency on the skill evaluation that was missed due to an excused absence to progress in the program. It is mandatory to master one skill before progressing to the next skill in the lab sessions. It is the student's responsibility to see the course director and set up a time to be evaluated in that competency before moving on to the next skill evaluation. Self and peer assessments must be completed on each skill evaluation prior to the scheduled skill evaluation session. The skill evaluations are posted on the M: drive under skill evaluations of the Dental Hygiene 1030 folder. Students must be on time for all skill evaluations. Failure to be in assigned seat/operatory at the start time of the class will result in inability to take the skill evaluation and a zero will be assigned. Failure to have a skill evaluation sheet completely filled out as specified to include self and peer evaluations with feedback will result in a failed attempt and the student will have to re-schedule to take the skill evaluation as the second/final attempt and begin with a 30 point deduction. Please pay attention to details and follow instructions for completed paperwork!

**Bottom Line= If you do not pass any lab skill evaluation on the first attempt with a grade of 100 or the second/final attempt with a grade of 70, you will receive an "F" in this course regardless of your final numerical course grade. You will not be allowed to progress in the course. If you receive an "F" in any dental hygiene program course, you will not be able to progress in the dental hygiene program.

CLASS PREPARATION ASSESSMENT

A class preparation assessment and grade will be given at the beginning of class sessions as noted in the lesson plan. Each student shall randomly draw one question. The question will cover some topic or portion of the

course material the student should have read and studied as noted in the syllabus lesson plan. If a student demonstrates prior class preparation by answering the question correctly, a session grade of one hundred (100) shall be recorded. If a student fails to demonstrate prior class preparation by answering the question incorrectly, a session grade of zero (0) will be recorded. The student will be allowed to remain in class, but shall be required to report to campus on Thursday of the same week at 12:00 noon and study the course material until 4:00 pm to ensure time has been spent studying, and that application and understanding of course material may be achieved.

GRADING POLICY

GRADE CALCULATION

Evaluation Item	Grade	(X) %	Points
Exam 1		10%	
Exam 2		10%	
Exam 3		10%	
Exam 4		10%	
Exam 5 (Final)		15%	
Lab Skills Evaluation 1			
Lab Skills Evaluation 2			
Lab Skills Evaluation 3			
Lab Skills Evaluation 4			
Lab Skills Evaluation 5			
Lab Skills Evaluation 6			
Lab Skills Evaluation 7			
(7 averaged together)		35%	
Class Preparation Assessment 1			
Class Preparation Assessment 2			
Class Preparation Assessment 3			
Class Preparation Assessment 4			
Class Preparation Assessments (4 averaged together)		10%	
Point Deductions for late/incomplete assignments-			
Final Course Grade			

GRADING SCALE

Letter Grade	**Range**
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

LIBRARY RESOURCES

The link Southeastern Technical College Library Resources (http://www.southeasterntech.edu/online-learning/technology-access.php) will provide access to Galileo, Online Catalog, Net Library on campus, Net Library off campus, periodicals, and newspapers. In addition, you may seek additional assistance in person by visiting the librarian in the Medical Technology Building or the librarian in the main building.

DHYG 1030 DENTAL MATERIALS LEARNING OBJECTIVES

After studying the assigned chapter, students should be able to:

Chapter 1 Introduction to Restorative Dental Materials

1. Explain why restorative materials are used in dentistry and why they are important to the patient's total health. (A,B,C,D)
2. Describe the major diseases that lead to tooth damage and how materials may help restore or prevent this damage. (A,B,C,D)
3. Explain the differences between intracoronal and extracoronal restorations, which oral diseases are likely to create a need for each, and which restorative materials are commonly used for each. (A,B,C,D)
4. Describe the process of endodontic treatment, when it is needed, and what materials are used for this treatment. (A,B,C,D)
5. Explain which restorative materials and types of restorations are commonly used to restore the function of missing teeth and the advantages and disadvantages of each type of restoration. (A,B,C,D)
6. Describe the role of restorative materials in the prevention of oral disease and trauma. (A,B,C,D)

Chapter 2 Properties of Materials

1. Define dimensional change and linear coefficient of thermal expansion, and give examples of their importance to clinical dentistry. (A,B,C,D)
2. Give examples of where thermal and electrical properties of restorative materials are important in clinical dentistry. (A,B,C,D)
3. List examples of where solubility and water sorption are important in the success of dental restorative materials. (A,B,C,D)
4. Describe when wettability of tooth structure or dental materials is important clinically. (A,B,C,D)
5. Define stress and strain, and illustrate how they differ. (A,B,C,D)
6. Describe how elastic modulus, proportional limit and yield strength, ultimate strength, and elongation and compression are important in the selection of dental materials, as well as compare the elastic moduli of dentin, enamel, composites, bonding agents, and the hybrid layer of the tooth-composite interface. (A,B,C,D)
7. Describe how resilience and toughness differ from strength properties. (A,B,C,D)
8. Rank the hardness of dentin and enamel with respect to common dental restorative materials, and explain why caution is warranted in the comparison of Knoop and nano-hardness values. (A,B,C,D)
9. Describe why for certain materials a strain-time curve is more informative than a stress-strain curve. (A,B,C,D)

Chapter 3 Preventive Dental Materials

Fluoride, Gels, Rinses, and Varnishes

1. Indicate the components of fluoride gels, rinses, and varnishes. (A,B,C,D)

2. Compare the characteristics of different types of fluoride treatments. (A,B,C,D)
3. Describe the clinical effectiveness of fluoride gels. (A,B,C,D)
4. Give the range of pH of many commercial fluoride gels. (A,B,C,D)
5. List five steps involved in the application of a fluoride gel. (A,B,C,D)

Pits and Fissure Sealants

1. Describe the uniqueness of pit and fissure caries compared with smooth-surface caries. (A,B,C,D)
2. List the components in light-activated and amine-accelerated resin sealants, and indicate their function. (A,B,C,D)
3. Describe factors that affect the penetration of a sealant into a fissure. (A,B,C,D)
4. Discuss the retention and efficacy of sealants. (A,B,C,D)
5. Describe the clinical success of sealants. (A,B,C,D)
6. List four situations in which sealant should not be used. (A,B,C,D)
7. List six steps involved in the application of sealants. (A,B,C,D)
8. Discuss visible light-activated sealants and amine-accelerate sealants. (A,B,C,D)

Mouth Protectors

1. Give the percentage of oral injuries sustained in unorganized sports. (A,B,C,D)
2. List common reactions of teeth to trauma. (A,B,C,D)
3. List three types of mouth protectors, and describe the material commonly used in custom-made mouth protectors. (A,B,C,D)
4. Compare the characteristic of different types of mouth protectors. (A,B,C,D)
5. List eight physical and mechanical properties that characterize a mouth-protector material. (A,B,C,D)
6. List eight properties of a mouth protector that can be evaluated clinically. (A,B,C,D)
7. Discuss the clinical implications of the properties of hardness and tearing. (A,B,C,D)
8. Describe three causes of breakdown of a mouth protector. (A,B,C,D)
9. List two causes of permanent deformation of a mouth protector during storage, and indicate two proper methods of storage. (A,B,C,D)
10. Describe the four basic steps to prepare a custom-made mouth protector from thermoplastic material. (A,B,C,D)
11. Indicate two goals in the forming of a mouth protector. (A,B,C,D)
12. Give two mistakes common in the fabrication of a mouth protector. (A,B,C,D)
13. List five instructions to give to a patient for the proper care of a mouth protector. (A,B,C,D)

Chapter 4 Direct Esthetic Restorative Materials

Composites

1. Describe the uses of universal composites. (A,B,C,D)
2. Indicate components used in composites. (A,B,C,D)
3. Describe properties of composites, and indicate their clinical importance. (A,B,C,D)
4. Describe the manipulation of composites. (A,B,C,D)

Composites for Special Applications

1. Describe the uses of composites for special applications, including flowable, bulk-fill, laboratory, core buildup, and provisional composites and repair of composites and ceramics. (A,B,C,D)
2. Indicate components used in composites for special applications. (A,B,C,D)
3. Describe properties of composites for special applications. (A,B,C,D)
4. Describe the manipulation of composites for special applications. (A,B,C,D)

Compomers

1. Describe the uses of compomers. (A,B,C,D)

2. Indicate components used in compomers. (A,B,C,D)
3. Describe properties of compomers. (A,B,C,D)
4. Describe the manipulation of compomers. (A,B,C,D)

Glass Ionomers
1. Describe the uses of glass ionomers. (A,B,C,D)
2. Indicate components used in glass ionomers. (A,B,C,D)
3. Describe properties of glass ionomers. (A,B,C,D)
4. Describe the manipulation of glass ionomers. (A,B,C,D)

Resin-Modified Glass Ionomers
1. Describe the uses of resin-modified glass ionomers. (A,B,C,D)
2. Indicate components used in resin-modified glass ionomers. (A,B,C,D)
3. Describe properties of resin-modified glass ionomers. (A,B,C,D)
4. Describe the manipulation of resin-modified glass ionomers. (A,B,C,D)

Bonding Agents
1. Indicate components used in bonding agents. (A,B,C,D)
2. Describe properties of bonding agents, and indicate their clinical importance. (A,B,C,D)
3. Describe the manipulation of bonding agents. (A,B,C,D)
4. List dental materials that can interfere with the polymerization of bonding agents. (A,B,C,D)

Light-curing Units
1. List desirable features of light-curing units. (A,B,C,D)
2. Describe precautions for protecting eyes of patients and staff. (A,B,C,D)
3. Describe four factors that influence exposure times for polymerization of composites. (A,B,C,D)

Chapter 5 Dental Amalgam
1. Define amalgam and discuss its diminishing use in modern dental practice. (A,B,C,D)
2. Explain the clinical advantages and disadvantages of using spherical or admixed types of amalgam. (A,B,C, D)
3. Describe precapsulated amalgam, and explain why its use is mandatory today. (A,B,C,D)
4. Compare the clinical advantages and disadvantages of amalgam versus more esthetic alternative restorative materials. (A,B,C,D)
5. Explain why the strength, dimensional change, creep, and corrosion of amalgam are clinically important. (A,B,C,D)
6. Discuss the clinical success of an amalgam based on the appropriate manipulation and explain why the proper condensation of amalgam into a cavity preparation is clinically important. (A, B, C, D)
7. Understand the rationale for limiting the patient's and dental personnel's exposure to mercury. (A,B,C,D)
8. Understand the sources of mercury important to human exposure, and put the exposure to mercury from amalgam into context of total exposure. (A,B,C,D)
9. List steps the dental team can take to limit the exposure of the patient and dental personnel to mercury and mercury vapor. (A,B,C,D)

Chapter 6 Finishing, Polishing, and Cleansing Materials

Abrasion
1. Give the purpose of finishing and polishing techniques and list what may result from a rough surface on a restoration. (A,B,C,D)
2. Define abrasion and contrast abrasive tools or slurries with cutting instruments. (A,B,C,D)

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3. Discuss three factors that influence the rate of abrasion, and indicate which factor is easiest to control clinically. (A,B,C,D)
4. Describe surface roughness and gloss. (A,B,C,D)
5. Distinguish finishing, polishing, and cleansing abrasives and techniques and recognize common abrasives. (A,B,C,D)
6. Give two principles of finishing and polishing techniques. (A,B,C,D)
7. List two reasons why an abrasive should not be used in a dry condition. (A,B,C,D)
8. Describe the finishing and polishing of common restorative materials and indicate precautions associated with these techniques. Include dental amalgam, composite, compomer, resin-modified glass ionomer, and acrylic denture resin. (A,B,C,D)

Prophylactic Pastes

1. Give two ideal functions of a dental prophylactic paste. (A,B,C,D)
2. List the major abrasives and therapeutic agents used in prophylactic pastes.(A,B,C,D)
3. Compare cleansing and abrasion of tooth structure by various products. (A,B,C,D)
4. List restorative materials particularly susceptible to wear by a prophylactic paste, and indicate two undesirable results of such wear. (A,B,C,D)

Dentifrices

1. Give the primary function of a dentifrice. (A,B,C,D)
2. Recognize four desirable effects of toothbrushing. (A,B,C,D)
3. List four types of debris in order of increasing difficulty of removal from surfaces of teeth. (A,B,C,D)
4. Recognize the components in a dentifrice and indicate their function. (A,B,C,D)
5. List several common abrasives used in dentifrices. (A,B,C,D)
6. Give examples of tooth structure and restorative materials particularly susceptible to abrasion by a dentifrice. (A,B,C,D)
7. List four variables of a toothbrush that can influence abrasion caused by a dentifrice. (A,B,C,D)
8. List four guidelines to follow in recommendation of a dentifrice for a patient. (A,B,C,D)

Denture Cleansers

1. List six requirements of an ideal denture cleanser. (A,B,C,D)
2. List three major types of denture cleansers, and identify the active ingredient in each. (A,B,C,D)
3. Describe effective techniques for cleaning dentures, including those with soft liners. (A,B,C,D)
4. Indicate the effects of hot water, hard and stiff bristles, and dentifrices when used to clean dentures. (A,B,C,D)
5. Give the disadvantages of each type of denture cleanser. (A,B,C,D)

Whitening

1. Indicate types of stains for which in-office whitening techniques may be effective. (A,B,C,D)
2. Compare the ingredients of in-office and home whitening agents. (A,B,C,D)
3. Indicate the effect of whitening agents on restorative materials. (A,B,C,D)
4. Give side effects reported for whitening agents. (A,B,C,D)
5. List three major methods of in-office whitening. (A,B,C,D)
6. Describe an in-office whitening gel technique. (A,B,C,D)
7. Describe a home whitening technique. (A,B,C,D)
8. Describe universal whitening guidelines and additional guidelines for in-office whitening gels. (A,B,C,D)

Chapter 7 Cements

Water-Based Cements

Do the following when it comes to: water-based cements: glass ionomer and resin-modified glass ionomer:

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1. List the components and indicate their function. (A,B,C,D)
2. Describe the setting reaction and indicate any variables that may affect the setting. (A,B,C,D)
3. Describe the clinical importance of film thickness, working and setting times, compressive strength, retention and type of bond to tooth structure, and fluoride release. (A,B,C,D)
4. Discuss the properties and biocompatibility. (A,B,C,D)
5. Describe the manipulation. (A,B,C,D)
6. Define bioceramic cement and discuss its requirements. (A,B,C,D)

Oil-Based Cements

Do the following when it comes to: zinc oxide-eugenol cements:

7. List the components and indicate their function. (A,B,C,D)
8. Describe the setting reaction and indicate any variables that may affect the setting. (A,B,C,D)
9. Describe the clinical importance of film thickness, working and setting times, compressive strength, retention and type of bond to tooth structure, and fluoride release. (A,B,C,D)
10. Discuss the properties and biocompatibility. (A,B,C,D)
11. Describe the manipulation. (A,B,C,D)

Resin-Based Cements

Do the following when it comes to resin-based cements: esthetic resin, adhesive resin, self-adhesive resin, and temporary resin:

12. List the components and indicate their function. (A,B,C,D)
13. Describe the setting reaction, and indicate any variables that may affect the setting. (A,B,C,D)
14. Describe the clinical importance of film thickness, working and setting times, compressive strength, retention and type of bond to tooth structure, and fluoride release. (A,B,C,D)
15. Discuss the properties and biocompatibility. (A,B,C,D)
16. Describe the manipulation. (A,B,C,D)

High-Strength and Low-Strength Base

Do the following when it comes to high and low-strength bases:

17. Discuss the uses. (A,B,C,D)
18. List the components. (A,B,C,D)
19. Indicate contraindications. (A,B,C,D)
20. Discuss the mechanical properties and biocompatibility. (A,B,C,D)
21. Describe the manipulation. (A,B,C,D)
22. Discuss temporary fillings. (A,B,C,D)
23. Describe the use of modified zinc oxide-eugenol cement. (A,B,C,D)

Cavity Liners and Varnishes

24. Discuss the function of cavity liners and varnishes. (A,B,C,D)
25. Give examples of cavity liners and discuss their composition. (A,B,C,D)
26. Discuss the properties of varnishes and how they can be disrupted and applied. (A,B,C,D)

Special Applications of Cement

27. Describe the type of cement used for special applications, including cementation of orthodontic bands, direct bonding of orthodontic brackets, and root canal sealers. (A,B,C,D)
28. Describe clinically important properties of cements used for special applications. (A,B,C,D)

Chapter 8 Impression Materials

1. Describe the function of an impression material. (A,B,C,D)
2. Describe the relationship between a tooth, an impression of the tooth, and the die. (A,B,C,D)
3. List the requirements for an ideal impression material. (A,B,C,D)
4. List the components in an alginate powder and describe their function. (A,B,C,D)
5. List the five objects for alginate impressions. (A,B,C,D)
6. List the factors to be considered in the selection of a tray for an alginate impression of the upper and lower arch. (A,B,C,D)
7. Describe how a tray may be modified for an alginate impression. (A,B,C,D)
8. Describe the proper dispensing and mixing of an alginate. (A,B,C,D)
9. Describe the proper loading of alginate into the tray. (A,B,C,D)
10. Describe the procedure for taking an upper and lower impression in alginate. (A,B,C,D)
11. Describe the proper handling and storing of an alginate impression. (A,B,C,D)
12. Compare the properties of hydrocolloid and elastomeric impression materials. (A,B,C,D)
13. Describe the advantages and disadvantages of alginate and agar hydrocolloid impression materials. (A,B,C,D)
14. Describe the difference in the setting of agar and alginate impressions. (A,B,C,D)
15. Compare the properties of the four major elastomeric impression materials, and indicate their clinical applications. (A,B,C,D)
16. List which die or model materials are compatible with the various impression materials. (A,B,C,D)
17. Describe the hand mixing of elastomeric impression materials and the automixing of addition silicones and polyethers. (A,B,C,D)
18. List the various methods of disinfection of impressions and their impact on the accuracy. (A,B,C,D)
19. Describe the important properties of elastomeric bite registration materials. (A,B,C,D)
20. Describe the properties of alginate substitute impression materials. (A,B,C,D)
21. List the advantages of hydrophilic elastomeric impression material. (A,B,C,D)
22. Describe the important characteristics of digital impression systems. (A,B,C,D)

Chapter 9 Model and Die Materials

1. Define the terms study model, cast, and die as they relate to model and die materials. (A,B,C,D)
2. Describe the physical properties important to model and die materials, and explain why they are important. (A,B,C,D)
3. Compare the advantages and disadvantages of the different model and die materials in terms of abrasion resistance, ease of use, time and equipment required, and other relevant properties. (A,B,C,D)
4. Describe the physical and chemical difference between model plaster, dental stone, and high-strength dental stone. (A,B,C,D)
5. Describe the setting reaction of gypsum materials and the effect of excess water on the set mass. (A,B,C,D)
6. Name accelerators and retarders that affect the gypsum setting reaction. (A,B,C,D)
7. Define water-powder ratio, its values for the various types of gypsum, and its affect on the physical properties of gypsum materials. (A,B,C,D)
8. Describe the differences between initial and final setting times, their chemical relevance, and how each can be determined. (A,B,C,D)
9. Describe the factors that influence the ability of gypsum to reproduce detail in an impression. (A,B,C,D)
10. Explain the concept of wetting and why it is important to gypsum materials. (A,B,C,D)

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11. Define the properties strength, hardness, abrasion resistance, and dimensional accuracy and explain why they are important clinically to gypsum materials. (A,B,C,D)
12. Describe the general procedure for measuring, mixing, and pouring an impression with a gypsum material. (A,B,C,D)
13. Describe the various methods of spatulation of gypsum materials. (A,B,C,D)
14. Give a specific method for disinfecting gypsum models and state whether it is better to disinfect an impression or a model. (A,B,C,D)
15. Describe the general setting reaction of epoxy model materials. (A,B,C,D)
16. Describe the general manipulation properties of epoxy model materials. (A,B,C,D)

Chapter 10 Waxes

1. Describe the difference between pattern waxes and processing waxes. (A,B,C,D)
2. Define the properties of melting range, residue, thermal expansion, and residual stress as they apply to dental waxes and cite the clinical relevance of these properties. (A,B,C,D)
3. Describe the composition and use of inlay wax, casting wax, and baseplate wax. Explain the properties of these waxes that make them unique and clinically useful. (A,B,C,D)
4. Describe the common properties of pattern waxes that are important clinically. (A,B,C,D)
5. Describe the composition and important physical properties of the various processing waxes used in dentistry. (A,B,C,D)

Chapter 11 Casting Alloys, Wrought Alloys, and Solders

1. Describe how dental casting alloys are categorized by the American Dental Association (ADA) classification system, and explain the extent to which this classification is important to clinical performance and patient safety. (A,B,C,D)
2. Describe the general composition and properties of high-noble, noble, and base-metal casting alloys. (A,B,C,D)
3. Describe the properties of alloys that affect ceramic-alloy bonding and the clinical consequences of poor ceramic-alloy bonding. (A,B,C,D)
4. Define wrought alloys, and describe how they are used in dentistry and how they differ from cast alloys. (A,B,C,D)
5. Explain how solders are used in dentistry and list properties important to their successful use. (A,B,C,D)
6. Explain what properties of alloys are most important to alloy biocompatibility. (A,B,C,D)

Chapter 12 Casting, Soldering, and Welding

1. Describe dimensional changes that occur during the casting process, and explain how they are balanced to ensure a clinically successful casting. (A,B,C,D)
2. Describe the lost-wax technique and its accuracy in producing a dental casting. (A,B,C,D)
3. Distinguish between casting and milling. (A,B,C,D)
4. Explain the advantages and disadvantages of using wax in the casting process. (A,B,C,D)
5. Define what a sprue is, what it may be made of, and its importance to the casting process. (A,B,C,D)
6. Explain the process of investing and how the properties of the investment regulate the fit of a casting. (A,B,C,D)
7. Explain why the conditions used to burn out the wax pattern influence the fit of a casting. (A,B,C,D)
8. Describe a centrifugal casting machine and how it works. (A,B,C,D)
9. Describe the process for finishing a restoration, and explain why these steps are important to its clinical success. (A,B,C,D)

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10. Compare solders with casting alloys in terms of composition and properties. (A,B,C,D)
11. Describe the soldering process and critical techniques that must be followed to ensure a good soldered joint. (A,B,C,D)
12. Distinguish soldering from welding. (A,B,C,D)

Chapter 13 Polymers in Prosthodontics

1. Describe a polymerization reaction and how the properties of monomers compare with those of polymers. (A,B,C,D)
2. Explain why by-products or residual monomer from a polymerization reaction may be a clinical liability in dentistry. (A,B,C,D)
3. Explain how free-radical polymerization is initiated for dental polymers. (A,B,C,D)
4. Describe what polymer cross-linking is, how it is created, and its importance to the clinical use of dental polymers. (A,B,C,D)
5. Describe how copolymers are formed, and give several examples of copolymers in dentistry and explain why they are important clinically. (A,B,C,D)
6. Describe how a complete denture is made and how the processing methods affect the physical properties of the denture. (A,B,C,D)
7. Describe the properties of poly (methyl methacrylate) that are most important to the clinical performance of a dental prosthesis. (A,B,C,D)
8. Correlate the recommendations for the care of dentures with the physical properties of poly (methyl methacrylate). (A,B,C,D)
9. Explain how soft liners are formed on a denture, why they are used, what types are available, and how long each type can be expected to last in service. (A,B,C,D)
10. Explain how acrylic polymers are bonded to alloys to form combination prostheses. (A,B,C,D)
11. Describe the nature of polymers used in denture teeth and how the properties of the polymer network are controlled to ensure the best clinical service; explain why ceramic denture teeth are rarely used today. (A,B,C,D)
12. Aside from denture construction, describe other uses of polymers in prosthodontics, and explain how the properties of polymers are exploited to facilitate these uses. (A,B,C,D)

Chapter 14 Dental Ceramics

1. Name the major types of ceramics used in dentistry today, and describe how they differ in composition, physical properties, optical properties, and clinical applications. (A,B,C,D)
2. For the properties of ceramics: Explain which specific physical properties of ceramics are most important to the clinical success of all-ceramic and ceramic-alloy restorations and why these properties are important; Explain the differences between transparency, translucency, and opacity and how these terms apply to dental ceramics; Explain how the color of dental ceramics are described and assessed. (A,B,C,D)
3. Describe the sequence of steps in fabrication of ceramic-alloy restorations. (A,B,C,D)
4. Describe the nature of the bond between alloy and ceramic and what factors may contribute to failure of this bond. Explain why failure of this bond is a major clinical problem. (A,B,C,D)
5. Describe the process of sintering, and explain why it is important in ceramic dental restorations. (A,B,C,D)
6. Describe several fabrication processes for all-ceramic crown and how these processes differ from the fabrication of ceramic-alloy restorations. (A,B,C,D)
7. Explain what veneers and ceramic inlays are and when they are used to restore teeth. Explain the advantages and disadvantages of ceramic versus composite inlays. (A,B,C,D)

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Chapter 15 Dental Implants

1. List the types of materials that have been used for endosseous implants, and explain which osseointegrate or biointegrate with bone. (A,B,C,D)
2. Compare and contrast biointegration and osseointegration. (A,B,C,D)
3. Explain how oral forces applied to an endosseous implant stress bone differently than natural teeth do. (A,B,C,D)
4. Describe the clinical treatment sequence used to place endosseous implants and the advantages and disadvantages of each sequence. (A,B,C,D)
5. Describe what instrumentation is needed to clean endosseous implants at the gingival level and why special instruments are needed. (A,B,C,D)
6. Describe the alloys of titanium that are used for endosseous implants in terms of composition, physical properties, and surface properties. (A,B,C,D)
7. Explain why ceramic coatings are applied to endosseous implants. (A,B,C,D)
8. Explain the advantages and disadvantages of zirconia as an endosseous implant material, and compare these characteristics with titanium-based implants. (A,B,C,D)
9. Describe how digital imaging is used for placement and restoration of endosseous implants. (A,B,C,D)

DENTAL HYGIENE PROGRAM GOALS

A. To provide comprehensive preparation of competent individuals in the arts and sciences pertinent to the discipline of dental hygiene.

B. To provide comprehensive preparation of competent individuals in the clinical and laboratory experiences, which are necessary to develop skills in rendering professional dental hygiene patient care to the public.

C. To provide an environment which will foster respect for the Dental Hygiene Professional Code of Ethics and Conduct and assure recognition and acceptance of the responsibilities of the profession of dental hygiene.

D. To prepare the graduates of the basic two-year curriculum in dental hygiene to fulfill the dental hygienist's role in community oral health services.

E. To teach students to conduct critical reviews of current literature as a means of research and life-long learning.

F. To teach students to seek life-long learning through continuing education courses on the latest products and developments in dentistry and medicine.

DHYG 1030 Dental Materials

Spring Semester 2018 Lesson Plan

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
1/08/18 Session 1	Chapters 1-3	First day of class/Introduction to Course—Syllabi, Outline, Rules, Regulations Coverage Introduction to Restorative Dental Materials Properties of Materials Preventive Dental Materials Chapter Case Studies Quiz and Discussion	Read Chapters 1-3 Complete Objectives Chapters 1-3 Answer End of Chapter Self Test Questions prior to EVERY CLASS Session.	CC 1,2,3,5 GC a,b
01/15/18	NO CLASS	Holiday		
1/22/18 Session 2		Exam first 50 minutes. Dental Assisting Video Video-Essentials of Effective Dental Assisting-60 minutes Lab-demonstrate and discuss sealants, fluoride, fluoride varnish, mouth protector model, use of curing light	Exam 1 Chapters 1-3	CC 1-14 GC b,c
01/29/18 Session 3	Chapters 4-5	Direct Esthetic Restorative Materials Dental Amalgam Show and discuss amalgamator, amalgam capsules, wedges, matrix bands, tofflemire bands, composite compules, and clear matrix bands. Video-amalgams, comps,	Class Preparation Assessment #1 Read Chapters 4-5 Complete Objectives Chapter 4-5 Self Test Questions	CC 8-10 GC a,b,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
		composite bonding. Chapter Case Studies Quiz and Discussion	Complete Case Study J, Chapter 12, in Case Studies in Dental Hygiene Textbook. Due next session.	
02/05/18 Session 4 Guest Speaker Special Time 11:30am		LUNCH-N-LEARN Maria Oster GlaxoSmithKline Two presentations/programs on Xerostomia and Dentures		
02/05/18 Session 4 (after guest speaker)	Chapters 6-7	Finishing, Polishing, and Cleansing Materials Cements Show and discuss finishing discs, lathe, finishing burs Video-polishing, cleansers, cements, liners Chapter Case Studies Quiz and Discussion Discuss Case Study J, Chapter 12, in Case Studies in Dental Hygiene Textbook.	Class Preparation Assessment #2 Read Chapters 6-7 Complete Objectives Chapters 6-7 Self Test Questions	CC 8-11 GC b,c
02/12/18 Session 5	Chapters 8-9 Lab-demo & discuss alginate, model & die materials	Exam first 50 minutes. Impression Materials Model and Die Materials Show and discuss impression materials, products, trays, stone Video-Alginate impression video	Exam 2 Chapters 4-7 Read Chapters 8-9 Complete Objectives Chapters 8-9 Self Test	CC 1,3,4,5 GC b,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
		Chapter Case Studies Quiz and Discussion Give study cast worksheets to complete before next session.	Questions	
02/19/18 Session 6	Chapters 10-11	Waxes Casting Alloys, Wrought Alloys and Solders Show and discuss various waxes and uses. Video-Model pouring and trimming video Chapter Case Studies Quiz and Discussion	Class Preparation Assessment #3 Read Chapters 10-11 and Whitening Reading Assignment on M:Drive Complete Objectives Chapters 10-11 Self Test Questions Study Cast Worksheets Due	CC 3,4,5,10 GC b,c
02/26/18 Session 7	Chapters 12-13	Exam first 50 minutes Casting, Soldering, and Welding Polymers in Prosthodontics Show and discuss acrylic types Video-Dentures Chapter Case Studies Quiz and Discussion	Exam 3 Chapters 8-11 Read Chapters 12-13 Complete Objectives Chapters 12-13 Self Test Questions	CC 10,12 GC b,c
03/05/18 Session 8	Chapters 14-15 Clinic Manual lab protocol	Dental Ceramics Dental Implants View Implant Surgery Video (Begin on Chapter 14 on video)	Class Preparation Assessment #4 Read Chapters 14-15 and Sealant Reading Assignment on	CC 12,14 GC b,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
		Chapter Case Studies Quiz and Discussion	M:Drive Complete Objectives Chapters 14-15 Self Test Questions Prior to next session, read Clinic Manual lab protocol for Sealant placement and view the Sealant Skill Evaluation Instructional Video. Be prepared for Skill Evaluations.	
03/12/18 Session 9	Sealants on typodont Clinic Manual lab protocol	Exam first 50 minutes Charge curing lights during exam time. Demonstration of acid etch and L-Pop sealant by instructors. Self and Peer Check-off prior to Sealant Skill Evaluations	Exam 4 Chapters 12-15 Sealant Skill Evaluations. View Alginate Impressions and Gypsum Model Skill Evaluations Instructional Video Prior to Next Session. Plug in curing lights to charge during exam time. Set up individual operatory with typodont and all	CC 13 GC b,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
			armamentarium necessary for sealant skill evaluations prior to class session.	
03/19/18 Session 10	Clinic Manual lab protocol	Dental laboratory tour. Location of lab supplies. Review of lab policies and procedures. Demonstrations of upcoming skill evaluations by instructors: types and proper use of dental lab equipment; protocols for measuring/mixing alginate; proper spatulation of alginate and gypsum material; trouble shooting tips; pouring up alginate impressions into gypsum models. Demonstration of taking alginate impressions and pouring of alginate impression by instructors. Practice skill evaluations.	View Alginate Impressions and Gypsum Model Skill Evaluations Instructional Video prior to next session. Prior to next session read Clinic Manual lab protocol for Skill Evaluation.	CC 1-5 GC b,c
03/26/18 Session 11	Clinic Manual lab protocol alginates and gypsum models	Taking of Alginate Impressions Lab and Gypsum Model Lab Self and Peer Check-off prior to Alginate Impressions and Pouring of Alginate Impressions into Gypsum Model Skill Evaluations Students will be paired as clinician-patient. Clinicians will take alginate impressions on patients and proceed to pour impressions into gypsum model. Student patients will disinfect and clean operatories under	Review Alginate Impressions and Pouring of Alginate Impressions into Gypsum Model Skill Evaluation and Clinic Manual protocol. Disinfect and set up individual operatory with all armamentarium necessary for skill	CC 3, 4 GC a,b,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
		supervision of one instructor while student clinicians are in the dental lab with one instructor.	evaluation. Prior to next session read Clinic Manual lab protocol for Skill Evaluation.	
04/02/18 - 04/05/18		SPRING BREAK		
04/09/18 Session 12	Clinic Manual lab protocol alginates and gypsum models	Taking of Alginate Impressions Lab and Gypsum Model Lab Self and Peer Check-off prior to Alginate Impressions and Pouring of Alginate Impressions into Gypsum Model Skill Evaluations Students will be paired as clinician-patient. Clinicians will take alginate impressions on patients and proceed to pour impressions into gypsum model. Student patients will disinfect and clean operatories under supervision of one instructor while student clinicians are in the dental lab with one instructor.	Disinfect and set up individual operatory with all armamentarium necessary for skill evaluation. Complete Cosmetic Whitening Research Assignment on M: Drive. Bring to next class session. Be prepared to discuss with class. View Mouth Protector and Whitening Trays Skill Assessment Instructional Video prior to next session and read Clinic Manual lab protocol for Skill Evaluation.	CC 3, 4 GC a,b,c
04/16/18 Session 13	Clinic Manual lab protocol	Fabrication of Vacuum-Formed Mouth Protector and Tooth Whitening Trays Lab Self and Peer Check-off prior to	Cosmetic Whitening Research Assignment Due This Session.	CC 5 GC b,c

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area
		Mouth Protector Lab and Tooth Whitening Lab Video-Occlusal splints- 60 minutes Video- The Ultimate Tooth Whitening Video-60 minutes	Prior to next session read Clinic Manual lab protocol for Skill Evaluation.	
04/23/18 Session 14	Clinic Manual lab protocol	Complete Vacuumed-Formed Mouth Protector and Vacuumed-Formed Whitening Trays if applicable, and prepare for delivery. Vacuumed-Formed Whitening Trays with Tooth Whitener Application Protocol Skill Evaluation. Self and Peer Check-off prior to Delivery of Mouth Protector and Whitening Trays with Tooth Whitener Application Protocol.	Delivery of Vacuumed-Formed Whitening Trays and Tooth Whitener Application Protocol Skill Evaluation.	CC 1-14 GC a,c
04/30/18 Session 15	Chapters 1-15	National Board Review Material and Final Review	Review Text Chapters and National Board Review Packet	CC 1-14 GC a,b,c
DATE TBA	Chapters 1-15	Comprehensive Written Final Exam	Final Exam 5	CC 1-14 GC a,b,c

COMPETENCY AREAS (CC):

1. Dental Material Standards
2. Dental Material Properties
3. Impression Materials
4. Gypsum Products
5. Mouth guards and whitening systems
6. Dental bases, liners, and cements
7. Temporary restorations
8. Classifications for restorative dentistry
9. Direct restorative materials
10. Indirect restorative materials

11. Polishing procedures for dental restorations
12. Removable dental prostheses
13. Sealants
14. Implants

GENERAL CORE EDUCATIONAL COMPETENCIES (GC):

a) The ability to utilize standard written English.
b) The ability to solve practical mathematical problems.
c) The ability to read, analyze, and interpret information.