NEW YORK CITY COLLEGE OF TECHNOLOGY
THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF
RESTORATIVE DENTISTRY

COURSE CODE & TITLE: RESD 1215 – INTRODUCTION TO RESTORAVIVE DENTAL CERAMICS
TERM: SPRING 2025

LECTURE INSTRUCTOR: BEATA REDA-SZYWALA , Adjunct Lecturer
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Virtual office hours: Upon request

COURSE & SUMMER EXTERNSHIP COORDINATOR: **LAURA ANDREESCU, Assistant Professor**
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Thursdays in-person 1:00 to 2:00 PM room A 601
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Passcode:12345
https://us02web.zoom.us/j/86382771423?pwd=SniN9hhHLDd53yhXkmO8BGbsr8DhXl.1
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LABORATORY INSTRUCTORS:

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Student support hours: Fridays 2:00 – 4:00 PM
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*RESD 1215 -Syllabus revised on January 2025 by Prof. L Andreescu, Prof. B. Reda Szywala, Prof. K.Perlata, Prof. NJ. Narvaez

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Student Hours. Students are encouraged to come by or log in, either individually or in groups, to discuss assignments, clarify class topics or problems, share ideas and concerns, review tests, or address any other matters that might be helpful. Office hours held by faculty are specifically offered for students' use and are an important part of students' education.

COURSE DESCRIPTION: This course is an introduction to the theory and techniques related to fabrication of ceramic and ceramo-metal dental restorations, which may include porcelain fused to metal crowns, milled zirconia restorations, and pressable all-ceramic restorations.
Laboratory techniques will include infection control procedures as related to dental ceramics, ceramic and metal substructure designs and fabrication, pressing techniques, porcelain build-up, firing, contouring, finishing, staining, glazing, and polishing to accuracy. During the summer, externship students will be placed in doctors' offices or dental labs to gain real world exposure to the dental profession.

CREDITS:	4 credits
CLASS HOURS:	Lecture: **1** hour per week; Laboratory: **6** laboratory hours per week
	Summer Externship Program: **24** hours
NUMBER OF WEEKS:	15 Weeks
CURRICULUM LEVEL	Second Semester
PREREQUISITES	RESD 1110, RESD 1115

COURSE REQUIREMENTS: Standard college and department attendance and grade regulations and proper uniform and conformity to safety regulations.

TEXTBOOKS:

1. **Air Force Pamphlet 47-103, Vol. 1.** Dental laboratory technology: basic sciences, removable prosthodontics, and orthodontics. (2005).
2. **Air Force Pamphlet 47-103, Vol. 2**. Dental laboratory technology: fixed and special prosthodontics. (2005).
3. **Introduction to Metal Ceramic Technology** (3rd ed.). Naylor, P., W. (2017). Chicago, IL: Quintessence Publishing Co.
4. **Phillips' Science of Dental Materials**. (12th ed.). Anusavice, K., J., Shen, C., H., Rawls, R. (2013). St. Louis, MI: Elsevier/Sounders
5. **Color Atlas: Basic Technique for Metal Ceramics**, An Introduction To Ceramic Techniques. (1st ed.) Yamamoto, M. (1990). Tokyo, Japan: Quintessence.

REFERENCES:

1. **Anatomy of Orofacial Structures**. (7th ed.). Brand, R., Isselhard, D. St. Louis, MI: C.V. Mosby 7. **Dental Technology for Fixed Resto**rations, Penwalt, Jelenko.
2. **All-Ceramics at a** Glance (1st English ed.) Kunzelmann, K., M., Kern, M., Pospiech, P., Raigrodski, A., J., Strassler, H., E, Mehl, A., Frankenberger, R., Reiss, B., Wiedhahn, K. (2001).
3. **The Art of Dental Ceramics**. Postfach, Germany: Society for Dental Ceramics. McLean, J. (1980). Chicago, IL: Quintessence Publishing Co.

AUDIO/VISUAL & TECHNICAL TAPES:

- Porcelain Building – City Tech Library
- Porcelain Finishing – City Tech Library
- Ceramics - Part 1 and Part 2 – City Tech Library
- Investing Casting and Metal Finishing – City Tech Library
- Porcelain Veneers – City Tech Library
- Porcelain Facial Margin - H.S.R.C.

- Metal Conditioning & Opaquing. Talladium, 1987. (VIDEOCASSETTE 643).
- Ceramics. University of Iowa College of Dentistry, n.d. 2 (VIDEOCASSETTE 642).
- Wax-Up. Talladium, 1987. (VIDEOCASSETTE 642)
- Model & Dies. Talladium, 1987. (VIDEOCASSETTE 641)
- Porcelain Building - Five Surface Domain - Range Build-Up System. Talladium, 1987 (VIDEOCASSETTE 644)

WEB REFERENCES:

- http://www.ada.org/index.asp
- http://www.dentaladvisor.com/
- http://www.dentalaegis.com/idt
- http://www.nadl.org/jdtunbound/archives.htm
- Electronic Journals in NYCCT Library. http://library.citytech.cuny.edu/

Instructors strongly encourage the students to ask questions and make comments, as well as to discuss their own ideas.

POLICIES:

I. ACADEMIC INTEGRITY

CUNY POLICY ON ACADEMIC INTEGRITY:

Academic dishonesty is prohibited at The City University of New York. Penalties for academic dishonesty include academic sanctions, such as failing or otherwise reduced grades, and/or disciplinary sanctions, including suspension, or expulsion.

Source: NYCCT College Catalog: http://www.citytech.cuny.edu/academics/academic-catalog.aspx

NYCCT 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.

Source: NYCCT College Catalog: http://www.citytech.cuny.edu/academics/academic-catalog.aspx

RESTORATIVE DENTISTRY:

All Restorative Dentistry students must submit completed assignments or projects (in lab or theory) by the assigned due date as stated in the course outline.

Plagiarism in lectures or laboratory assignments, exams or projects will not be accepted. Students will not receive a grade if papers or assignments were done by someone else. The department will adhere to and follow the Academic Integrity Policy and Procedures as per NYCCT & CUNY Policies.

Students are responsible for knowing all material covered in reading assignments and handouts for both lecture and laboratory. Students are responsible for knowing information from reading assignments regardless of whether it has been covered during class sessions or not.

RESD students are responsible for being in class on time and for participation in laboratory demonstrations. Failure to observe laboratory demonstrations may affect student's performance and contribute to the failure of the course.

II. ATTENDANCE:

NYCCT ATTENDANCE & LATENESS

Attendance and class participation are essential and excessive absences may affect the final grade. Courses with laboratory, clinical or field work may have specific attendance policies.

Source: NYCCT College Catalog: http://www.citytech.cuny.edu/academics/academic-catalog.aspx

RESTORATIVE DENTISTRY PROFESSIONALISM & PARTICIPATION:

The Department of Restorative Dentistry follows NYCCT, CUNY and Dental Laboratory Technology industry standards in order to educate, develop, advance, and guide future dental technology professionals, preparing graduates for workplace readiness. To successfully complete Restorative Dentistry courses, students must consistently participate in classes and meet deadlines as stated in course syllabus. To successfully complete Restorative Dentistry curriculum the students are required to observe course instructor's demonstrations and complete all fabrication tasks under course instructor's supervision. Classes will begin promptly at the scheduled time. Laboratory demonstrations are usually.

conducted at the beginning of the session and cannot be redone for the convenience of a student who arrives late or is absent. When a student is given instructor's permission to leave the class, the student will return to class in a reasonable time.

Students enrolled in RESD course must meet all course requirements as stated in course syllabus in order to pass it. RESD students must complete required assignments, tasks, projects, and exams by specified due dates. Failure to submit or complete the assignment, tasks, projects, or exam by specified due dates will result in a zero (0) grade and possible failure of the course. It is strongly advised that students are present for all classes during the semester including 30 laboratories and 15 lectures.

III. GRADING

Restorative Dentistry courses include didactic or didactic and laboratory sections which are graded accordingly. In didactic and laboratory sessions, the final grades will be computed based on grading included in course syllabus. Most courses are graded based on 60% of the laboratory and 40% of the lecture grades. Students must achieve a passing grade of at least 70% in the laboratory and at least 70% in the lecture sections of the course to receive the minimum passing grade of "C" for the entire course. Failure to meet the minimum of 70% average in either component of the course confirms that the student has not met the minimum requirements for successful completion of the course and a grade of "D" or "F" will be given based on student's performance in the failing section of the course.

RESD student is required to repeat any RESD course for which he/she receives a grade below minimum of "C". For courses with laboratory and lecture components, the student needs to repeat both the lecture and the laboratory sections, even though the score in one of the sections may have been greater than 70%.

RESD students will participate in the end of semester clean-up of the Restorative Dentistry dental laboratories. The date of final cleanup will be announced in advance. For students who are absent during final clean up, 5% of final grade will be deducted.

College grading scale

A = 93-100%

A- = 90-92.9%

B+ = 87-89.9%

A = 83-86.9%
B- = 80-82.9
C+ = 77- 79.9%
C = 70-76.9%
D = 60-69.9%
F = 59.9% and below

SATISFACTORY PROGRESS

Students are expected to maintain 2.0 G.P.A. or higher in all classes. Students who's cumulative G.P.A. fall below the minimum 2.0 G.P.A. will be placed on academic alert or academic probation by the College. Students on academic probation may be subject to attempted credit restrictions which can affect progress in taking all courses needed for a semester. Failure to raise cumulative G.P.A. to the appropriate level could result in dismissal from the College.

Any students receiving a grade of "D" or "F" in a RESD course will be required to repeat that course. RESD course may only be repeated once. Failure to satisfactorily complete a repeated RESD course will be considered a failure to maintain satisfactory progress in the major and will result in dismissal from the major.

IV. PROFESSIONALISM & ETHICS

Since practice of dentistry carries with it a high degree of responsibility, a mature, professional, and ethical conduct is expected of all students at all times (lecture & laboratory sessions, hybrid & online sessions, externship sites, professional events/seminars, etc.). Unprofessional behavior that shows inattentiveness and disrespect for others will be taken into consideration during the grading process.

Points may be deducted at the discretion of any faculty member regardless of what course is in session. This includes incidents in the hallways, by lockers, or anywhere on NYCCT campus. Students will conduct themselves in a professional manner. No horseplay, offensive language, shouting or any other misconduct will be allowed.

NETIQUETTE:

Online Etiquette-Students will conduct their online posts and replies with respect for others, which include courtesy, dignity, and appropriate language at all times. Inappropriate behavior of any kind in online settings will not be tolerated and will negatively affect a student's grade.

All faculty members will be addressed by their proper title.

Students are required to use proper dental terminology when discussing dental prosthesis.

Students are to have all required instruments and supplies when attending laboratory sessions.

Students are not permitted to do other students' work although assistance and teamwork are strongly encouraged.

All electronic devices must be turned off during all RESD classes unless otherwise specified by the instructor.

Each RESD student will be assigned a locker at the beginning of each semester and will vacate the locker by the last day of the semester. If the locker is not returned to clean condition by the end of the semester, the locker will be broken by CLT. The student will not receive another locker the next semester.

Students should make arrangements to attend all department events and professional development seminars in which an invitation is extended. Students are strongly encouraged to attend events, professional development seminars and meetings sponsored by the department to elevate their knowledge, skills and understanding of the field of study.

Department offices and stock rooms contain sensitive and personal information, classroom materials, supplies and equipment, and should be used for official use only. Students and unofficial personnel should not be allowed in the department offices unless to fulfill official business.

Students will conduct their online posts and replies with respect for others, which include courtesy, dignity, and appropriate language always. Inappropriate behavior of any kind will not be tolerated and will negatively affect students' grades. It is strongly recommended that each student review the Netiquette guidelines prior to signing on to backboard at http://www.albion.com/netiquette/corerules.html

DRESS, SUPPLIES & TEXTBOOKS

Laboratory smocks (lab coats) with Restorative Dentistry Department emblem must be always worn in the laboratory. Emblems are to be attached to the left breast pocket. Smocks must be clean and kept completely buttoned or tied when worn. Failure to wear smocks will necessitate students being barred from laboratory and marked absent.

Closed-toe shoes are required while working in the laboratory.

No hats/caps of any type are to be worn in the laboratories. *(Except for religious reasons)*

Students must purchase and have in their possession the required tools, supplies, PPE and textbooks by the 2nd week of scheduled classes. A list of all course materials will be available in the department's main office or in CLT's office. All personal tools should be clearly labeled with the student's name.

Students should acquire required textbooks for each course and are expected to read assigned pages and review procedures *prior* to attending lecture and laboratory classes. The list of required textbooks will be listed in all course syllabi.

RESD students are responsible for their belongings at all times. The Restorative Dentistry Department does not take responsibility for leftover items.

HEALTH & SAFETY

1. No eating, drinking, or smoking is permitted in laboratories or classrooms.
2. No electronic devices (i.e., phones, headphones, computers, or tablets) will be permitted in the laboratories or classrooms unless requested for classroom use by the instructor.
3. No outerwear, shopping bags, attaché cases, luggage etc., are permitted in laboratories.
4. Bunsen burners when lit are a potential danger. Bunsen burners must be turned off when you leave your bench. Long hair and hair spray are flammable items. Pay particular attention to any Bunsen burner flame. Do not lean over the open flame.
5. Chucks must be securely placed onto bench engine shaft to avoid chuck flying off when engine is turned on.
6. Boiling water can result in serious burns. Extra caution should be taken when boiling out or using boiling water. Burnout furnaces and porcelain furnaces are potentially dangerous. Tongs should be used when picking up hot casting rings or ceramic work.
7. Students with long hair must wear a hairnet or tie back their long hair to prevent accidental burning from Bunsen burners or other serious accidents. Hair can easily get caught in hand piece or lathe.
8. Safety eyeglasses must be worn by all occupants of the laboratory while any procedures are being conducted that produce dust or airborne particles. Safety eyeglasses with side shields may be obtained from a hardware store. They are essential to the students' safety.
9. Eye protection measures should be taken when working with curing lights, lasers, and heating or melting metal. Proper mask (N95) should be worn when grinding metals, ceramics, and acrylics or when using materials creating dust.
10. Students not enrolled in a RESD course, from this and other departments, will not be permitted to visit during laboratory sessions.
11. Students will not use any equipment until demonstrated by the instructor.

HELPFUL INFORMATION ON HOW TO ACCESS AND NAVIGATE BRIGHTSPACE:

Visit the Student Welcome Center in the Library Building on the first floor to seek assistance with Brightspace setup, password, and access issues.
Visit the student computer lab in the General Building, sixth floor, room G600 and v-217. The phone number for the lab is (718) 254-8565.
Refer to "Student Brightspace" on the NYCCT website. To enter this site:
Access link: Student Brightspace - Academic Technologies and Online Learning (AtoL)
Brightspace tutorial - Brightspace: Student Tutorial
Click on "Quick Links"
Go to "Helpful Links" and click on " Academic Technologies and online Learning (AtoL)."
Click on "Instructional Technology Tutorials and Handouts"
Scroll down and click "Brightspace basics for students."
College provides numerous student Brightspace training sessions throughout the semester.
Use the description of the navigation of the Brightspace site

CLEANLINESS:

1. Students must have a plastic place mat to protect their bench top during laboratory sessions.
2. Students are required to clean up working areas and equipment at the conclusion of any procedure. Timely cleanup is important to prepare the area for the next student and ensure equipment remains in working order. Especially important is that stone or investment is not allowed to harden in the sinks, in the mixing bowls or in contact with the equipment.
3. Each student is required to leave the workstation spotless by removing all debris, papers, wax, plaster, etc. from drawers, workstation tops and floors in the immediate vicinity of the seat before leaving. In addition, each student will be assigned responsibility for maintaining the cleanliness of an area used in common by all members of the class. Also, equipment such as duplicating flasks, articulators, or any other equipment issued by the instructor must be returned clean and in good working condition (5% of final grade).
4. RESD students will participate in the end of semester clean-up of the laboratories that will be scheduled in the morning after the last working laboratory class. 5% of final grade will be deducted for students who will not show up for the final clean up.

COURSE LEARNING OBJECTIVES:

1. Upon successful completion of the course each student should be able to:
2. **Describe** the principles and methods of preventing disease transmission and cross contamination during the fabrication of ceramic restorations
3. **Describe** the theory and techniques related to fabrication of ceramic and ceramo-metal dental restorations, which may include porcelain fused to metal crowns, milled zirconia restorations, and pressable all-ceramic restorations.
4. **Fabricate** fixed ceramic restorations in accordance with the given prescription/ePrescription.
5. **Prepare and evaluate** casts with removable dies:3 D printed casts will be provided; students need to trim, and ditch dies and mark margins utilizing magnification
6. **Articulate** casts
7. **Design, develop, and wax** substructure patterns for all-ceramic pressable restorations utilizing magnification. **Process patterns**: sprue, invest, burnout, cast or press

8. **Seat** restorations utilizing magnification
9. **Prepare** the framework to receive porcelain
10. **Apply and fire** dentin and enamel porcelains
11. **Contour** fired porcelain
12. **Perform** optical external characterization: staining and glazing to match shade guide
13. **Finish and polish** porcelain and non-porcelain bearing surfaces utilizing magnification
14. **Fabricate** the foil matrix for a porcelain complete (Jacket) crown
15. **Demonstrate** safe handling of all equipment associated with ceramic restorations
16. **Meet** all responsibilities assigned for the summer externship program. Each student will submit an essay documenting their experiences and activities and complete the Externship Student Survey. Each externship site will conduct a detailed evaluation of participating student's performance.

LEARNING OBJECTIVES ASSESSMENT:

To evaluate student achievement of the learning outcomes the instructor will do the following:

- **Review** students creative process and ability to follow instructions into the laboratory work through project evaluations
- **Conduct** multiple choice exams, assignments, and assessments
- **Evaluate** all exams and projects with emphasis on student's ability to communicate and use of professional vocabulary
- **Utilize** exams/assessments reviews and class participation to integrate the knowledge, skills, integration, values, ethics, and relationships into dental curriculum.

GENERAL EDUCATION STUDENT LEARNING OBJECTIVES:

Knowledge: (Lecture) develop knowledge form a range of disciplinary perspectives and develop ability to deepen and continue learning; Depth of knowledge: engage in an in-depth, focused, and sustained program of study

Skill: (Laboratory) develop tools needed for communication, inquiry, analysis, and productive work: Inquiry/Analysis: derive the meaning from experience, as well as gather information from observation; describe and solve problems

Values, Ethics and Relationships: (Externship):
Professional/Personal development: demonstrate intellectual honesty and personal responsibility
Ethics/Values: transform information into knowledge, and knowledge into judgments and action
Global/Multicultural Orientation: demonstrate cultural and global awareness and sensitivity

RESD 1215 GRADING:

The final grade for RESD 1215 will be computed based on 50% of laboratory grade, 40% of lecture examination grades, and 10% summer externship assessment.

The student must pass all 3 parts of the course to complete the course.

LECTURE	40%
LABORATORY.	50%
SUMMER EXTERNSHIP	10%
TOTAL	100%

- Final grade will be computed on the basis of 50% of laboratory grade, 40% of lecture examination grades, and 10% summer externship assessment.
- Each individual's performance will be assigned a conventional letter grade.
- The student must pass all 3 parts of the course in order to complete the course.
- The student must achieve a minimum passing grade of at least 70% in lecture as well as 70% in laboratory and to complete summer externship assignments with a 70% to pass the course.

LECTURE EVALUATION CRITERIA

QUIZ	20%
MIDTERM	30%
FINAL	30%
ONLINE ASSESSMENTS total:	20%
Assessment 1	2%
Assessment 2	2%
Assessment 3	2%
Assessment 4	2%
Assessment 5	2%
Assessment 6	2%
Assessment 7	2%
Assessment 8	2%
Assessment 9	2%
Assessment 10	2%
TOTAL LECTURE EXAMS + ONLINE ASSESSMENTS	**100%**
CUMULATIVE ASSESSMENT extra-credit	5%

***NOTE: Failure to complete the any of the online assessments will count as an absence

ONLINE ASSIGNMENTS AND PARTICIPATION GRADING RUBRIC

Criteria/ Attribute	Meets Expectation 70%-100%	Needs Improvement 0-70%
Online Instructions for Assignments	Has followed the instructions to complete the online assignment	Has partially followed the instructions
Authenticity	Has answered all the questions	Has given partial/incomplete answers
Communications/ Writing Skills	Has given *relevant* responses to the specific questions asked	Has provided some relevant responses to questions asked
Teamwork/ Online Community Involvement	Effectively synthesizes class presentations and	Uses materials directly from the textbook mixed with own limited

	reading assignments to generate his/her own elaboration of concepts in assessments, exams and questions asked	elaborations

RESD 1215 LECTURE OUTLINE:

LECTURE 1: Infection control, model fabrication, cast preparation, pinning, die trimming, margin identification utilizing magnification and articulation - 1 lecture hour

A. CONDITIONS: Given a lecture and discussion using slides, visual aids, and reading assignments, on the clinical and laboratory procedures for disinfecting, pouring, pinning, articulating, and preparing dies for waxing.

B. PERFORMANCE: The student should be able to:

- Describe the principles and methods of preventing disease transmission and cross contamination during the fabrication of ceramic restorations
- Describe how to pour bubble free models and counters
- Describe how to separate, trim, and drill models with pindex
- Describe how to pin models using Dual and/or Dowel pins
- Describe how a pinned die is cut
- Describe how a die is trimmed
- Identify various types of margin preparations
- Describe how to articulate models
- Troubleshoot model fabrication and articulation failures

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of one lecture hour

D. REQUIRED READING: AFP 47-103 Vol II p14, p. 28-45; Phillip's Science of Dental Materials p. 182-193

LECTURE 2: All ceramic restorations –porcelain jacket crowns, pressed copings and crowns - 1 lecture hour

A. CONDITIONS: Given a lecture and discussion using slides, visual aids and reading assignments on the procedures for preparing a matrix for a jacket crown, pressed copings and crowns.

B. PERFORMANCE: The student should be able to:

- Describe the step-by-step procedures for forming and handling a PJCmatrix
- State reasons why a matrix is necessary
- Describe procedure for fabricating pressable restoration
- Explain fabrication of zirconia milled restoration
- Troubleshoot all ceramic restorations failures

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of one lecture hour.

D. REQUIRED READING: AFP 47-103 Vol II p. 174-187; Phillip's Science of Dental Materials p. 418-468

LECTURE 3: Waxing of copings and full contour wax ups - 1 lecture hour

A. CONDITIONS: Given a lecture and discussion using slides, visual aids, and reading assignments on the various methods of constructing a coping and full contour wax up, types of spruing materials, types of investment materials, and methods of investing

B. PERFORMANCE: The student should be able to:

- Identify various types of waxes used in coping fabrication
- Differentiate between methods of constructing a coping and full contour wax up
- Describe under what conditions each method should be used

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of one lecture hour.

D. REQUIRED READING: AFP 47-103 Vol II p. 64-72, p. 121-129, Naylor p. 61-81, Yamamoto p. 9- 12, Phillip's Science of Dental Materials p. 194-200

LECTURE 4: Spruing and investing - 1 lecture hour
A. CONDITIONS: Given a lecture and discussion using slides, visual aids and reading assignments on laboratory procedures related to spruing and investing
B. PERFORMANCE: The student should be able to:

- Name materials used for spruing
- Identify proper sprue application for different type of materials used for final restoration
- Describe step-by-step spruing procedure
- Troubleshoot spruing failures
- List types of investments
- Describe step-by-step investment procedures
- Troubleshoot investment failures

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of one lecture hour.
D. REQUIRED READING: AFP 47-103 Vol II p. 73-82, p.129-132, p. 171, Naylor p. 83-102, Phillip's Science of Dental Materials p. 200-212

LECTURE 5: QUIZ – 20% - 1 lecture hour

LECTURE 6: Casting - 1 lecture hour
A. CONDITIONS: Given a lecture and discussion using slides, visual aids and reading assignments on the methods of casting
B. PERFORMANCE: The student should be able to:

- List and describe all procedures for casting
- Describe the various situations when oven burnout temperatures may differ
- Describe the problems that may arise during casting

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of one lecture hour.
D. REQUIRED READING: AFP 47-103 Vol II p. 73, p. 82-88, p. 132-133, p. 172-173; Naylor p. 93-105, Yamamoto p. 9-12, Phillip's Science of Dental Materials p. 367-388

LECTURE 7: Recovery and finishing of PFM copings - 1 lecture hour
A. CONDITIONS: Given a lecture and discussion using slides, visual aids and reading assignments on the methods of castings recovery and finishing procedures
B. PERFORMANCE: The student should be able to:

- Describe divesting and blasting procedures
- List equipment and materials used during castings recovery procedures
- Describe the problems that may arise divesting and blasting

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of one lecture hour.
D. REQUIRED READING: AFP 47-103 Vol II p. 89-91, p. 133-136, p. 172-173; Naylor p. 109-130, Yamamoto p.9-12.

LECTURE 8: PFM coping preparation and opaquing utilizing magnification- 1lecture hour
A. CONDITIONS: Given a lecture and discussion using slides, visual aids and reading assignments on metal conditioning, opaque application and non-precious alloys.
B. PERFORMANCE: The student should be able to:

- Describe the precious and non-precious alloy conditioners

- Describe the effects of conditioners on:
  a: physical properties of alloys
  b: bonding strength of porcelains and opaques
- Describe degassing techniques
- List firing steps for degassing
- Describe opaque application techniques
- List firing steps for opaque application

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of one lecture hour
D. REQUIRED READING: AFP 47-103 Vol II p. 136-139; Naylor p. 141-152, Phillip's Science of Dental Materials p. 418-468

LECTURE 9: PFM coping, and butt margin preparation and opaquing utilizing magnification- 1 lecture hour.
A. CONDITIONS: Given a lecture and discussion using slides, visual aids and reading assignments on PFM copings and butt margin preparations and opaquing.
B. PERFORMANCE: The student should be able to:

- List tools & equipment used to create butt margin and to prepare PFM coping for opaquing
- Describe reason for butt margin fabrication
- Describe opaque application techniques and the firing cycle for opaque application
- Troubleshoot opaque application failures

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of one hours.
D. REQUIRED READING: AFP 47-103 Vol II p. 136-139; Naylor p. 79-81, p. 141-152, Yamamoto p. 97-116,

LECTURE 10: MIDTERM EXAM - 30% - 1 lecture hour

LECTURES 11 and 12: Porcelain build-up and firing utilizing magnification- 2 lecture hours
A. CONDITIONS: Given a lecture and discussion using slides, visual aids and reading assignments on porcelain application, condensing, physical properties, oven temperatures, firing cycles and thermal properties of porcelain
B. PERFORMANCE: The student should be able to:

- Describe the steps in building and condensing porcelain
- List the physical properties of porcelain
- List the thermal properties of porcelain
- Describe porcelain firing procedures
- Troubleshoot porcelain application failures

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of two lecture hours
D. REQUIRED READING: AFP 47-103 Vol II p. 139-151; Naylor p. 152-165; Yamamoto p. 29-96, Phillip's Science of Dental Materials p. 418-468

LECTURES 13 and 14: Contouring, staining and glazing utilizing magnification- 2 lecture hours
A. CONDITIONS: Given a lecture and discussion using slides, visual aids and reading assignments on shade matching, color blending, contouring, techniques of applying stains and glazes
B. PERFORMANCE: The student should be able to:

- List equipment and materials used for contouring porcelain restorations
- Describe contouring principles to achieve naturally looking restorations
- List the conditions under which tooth's shade should be matched
- Describe the methods of shade matching

- Describe the importance of communication between dental team members to create naturally looking restorations
- Describe PFM & all ceramic restorations stain application and glazing
- Describe the advantages and disadvantages of natural and super glazing techniques
- Troubleshoot glaze failures
- Troubleshoot shape and shade mismatches

C. EXTENT & CRITERIA: With at least 70% accuracy at the end of two lecture hours.
D. REQUIRED READING: AFP 47-103 Vol II p. 152-160; Naylor p. 180-198, Yamamoto p.28

LECTURE 15: FINAL EXAMINATION – 30% - 1 lecture hour

RESD 1215 LECTURE SCHEDULE

(Tentative schedule, subject to change)

Lecture	Topics *** Failure to complete the assessment in online class will count as an absence.	Reading assessments
1 **01/28/2025**	Infection control, fabrication of models, cast preparation pinning, die trimming and margin identification, articulation. ***Assessment 1 posted & due by the beginning of the next lecture.**	1. Lecture Presentations 0, 1 2. AFP 47-103 Vol II p14,28-45; 3. Phillip's 4. Science of Dental Materials p. 182-193
2 **02/04/2025**	All ceramic restorations ***Assessment 2 posted & due by the beginning of the next lecture.** ****Assessment 1 due**	1. Presentations 2A, 2B, 2C 2. AFP 47-103 Vol II p.174-187; 3. Phillip's Science of Dental Materials p. 418-468
3 **04/11/2025**	Waxing of copings and full contour wax ups ***Assessment 3 posted & due by the beginning of the next lecture.** ****Assessment 2 due**	1. Presentation 3, 3A 2. AFP 47-103 Vol II p. 64-72, p. 121-129; 3. Naylor p.61-81; 4. Yamamoto p.9-12; 5.Phillip's Science of Dental Materials p. 194-200
4 02/25/2025	Spruing & investing Quiz exam review is located in *exam*s section on Brightspace. ***Assessment 4 posted & due by the beginning of the next lecture.** ****Assessment 3 due**	1. Presentation 4, 4A 2. AFP 47-103 Vol II p. 73-82, 123-132, 171; 3. Naylor p.83-102 4. Phillip's Science of Dental Materials p. 200-212
5 – 03/04/2025	**QUIZ 20 %**	Scheduled during regular lecture hour
6 **03/11/2025**	Casting Review of quiz results ***Assessment 5 posted & due by the beginning of the next lecture** ****Assessment 4 due**	1. Presentation 5 2. AFP 47-103 Vol II p. 73, 82-88, 132-133, 172-173. 3. Naylor p.93-105; 4. Yamamoto p. 912; 5. Phillip's Science of Dental Materials p. 367-388
7 **03/18/2025**	Recovery & finishing of PFM copings ***Assessment 6 posted & due by the beginning of the next lecture** ****Assessment 5 due**	1. Presentation 6 2. AFP 47-103 Vol II p.89-91, 133-136, 172-173; 3. Naylor p. 109-130; 4. Yamamoto p. 9-12
8 **03/25/2025**	Coping preparation and opaquing ***Assessment 7 posted & due by the beginning of the next lecture.** ****Assessment 6 due.**	1. Presentation 7, 7A, 7B 2.AFP 47-103 Vol II p136-139; 3. Naylor p. 141152; 4. Phillip's Science of Dental Materials p. 418-468
9 **04/01/2025**	Coping and porcelain margin preparation and opaquing Midterm exam review is located in *exam*s section on Brightspace ***Assessment 8 posted & due by the beginning of the next lecture.** ****Assessment 7 due**	1. Presentations 7, 7A, 7B 2. AFP 47-103 Vol II p. 136-138; 3. Naylor p. 7981, 141-152; 4. Yamamoto p. 97-116

10 – 04/08/2025	**MIDTERM EXAM 30%**	Scheduled during regular lecture hour
11 04/22/2025	Porcelain build-up and firing Review of midterm results ***Assessment 9 posted & due by the beginning of the next lecture** ****Assessment 8 due**	1. Presentation 8, 2B, 2C 2. AFP 47-103 Vol II p. 139-151; 3. Naylor p. 152-165; 4. Yamamoto p. 29-96; Phillip's Science of Dental Materials p. 418-468
12 04/29/2025	Porcelain build-up and firing ***Assessment 10 posted & due by the beginning of the next lecture.** **** Assessment 9 due**	1. Presentation 8, 2C 2. AFP 47-103 Vol II p. 139-151; 3. Naylor p. 152-165; 4. Yamamoto p. 29-96; 5. Phillip's Science of Dental Materials p. 418-468
13 05/06/2025	Contouring, staining and glazing ****Assessment 10 due**	1. Presentation 9 2. AFP 47-103 Vol II p.152-160; 3. Naylor p.180198; 4. Yamamoto p.28
14 05/13/2025	Final exam review located in *exam*s section on Brightspace *** Cumulative assessment due for extra credit**	Review all course material
15 -05/2025	**FINAL Exams – 30%**	Scheduled during regular lecture hour in assigned computer lab

LABORATORY EVALUATING CRITERIA:

- Infection control, model and die fabrication, articulation _____ 5%
- PFM: individual wax up & casting tooth # 3_____ 8%
- PFM: application and firing of porcelain tooth # 3 _____ 4%
- PFM contouring, shaping, staining and finishing tooth # 3 _____ 6%
- All-ceramic: wax ups (teeth #: 6,8,14) _____20%
- All-ceramic: application & pressing (teeth #: 6,8,14) _____ 20%
- All-ceramic: application and firing of porcelain (teeth #: 6,8,14) _____ 20%
- All-ceramic: contouring, shaping, staining and finishing (teeth #: 6,8,14)_____ 8%
- Foil matrix for porcelain jacket crown(tooth # 6) _____ 5%
- Clean & Neat _____4%

TOTAL: 100%

RESD 1215 LABORATORY OUTLINE

LAB 1. Infection Control Procedures & Fabrication of Models - 1 laboratory session

A. CONDITIONS: Given a demonstration and reading assignments on infection control procedures, model materials, methods of pinning and articulation using the following equipment and supplies:

1. PPE, disinfectant
2. stone
3. mixing bowl and spatula; electric mixing bowl
4. smart box, scale
5. electric mixer
6. base former

7. pindex machine
8. pindex pins

B. PERFORMANCE: The student should be able to disinfect and pour a working model, pin and index the model with at least 70% accuracy at the end of one session.

LAB 2. Cast Preparation, Die Trimming and Margin Identification, Articulation- 1 laboratory session A. CONDITIONS: Given a demonstration and reading assignments on cast preparation, die-trimming, margin identification, microscope utilization, and articulation using the following equipment and supplies:

1. poured models
2. hand piece
3. carbide burs, heatless stone
4. indelible pencil
5. Bard Parker blade
6. die-saw, electric saw
7. straight line articulator
8. cyano acrylate cement
9. microscope

B. PERFORMANCE: The student should be able to cut the dies, trim the excess material, identify and mark the margins, as well as utilize microscope and articulate the models with at least 70% accuracy at the end of one session.

LAB 3, 4, 5. All Ceramic Restorations Waxing & Pressing - 3 laboratory sessions

A. CONDITIONS: Given a demonstration and reading assignments on the fabrication of the pressable restorations and utilizing the following equipment:

1. ash free wax (non-contaminating), carving instruments
2. Bunsen's Burner/electric waxer/no flame unit
3. sprues
4. pressable system
5. investment, ring liner
6. bowl, electric mixer, vibrator, pressure unit
6. plunger and pellets
7. pressing oven
8. microscope

C. PERFORMANCE: The student should be able to construct an all-ceramic restoration utilizing the pressing techniques with at least 70% accuracy at the end of three sessions.

LAB 6, 7, 8, 9. Waxing of Copings, Full Contour Wax Ups, Spruing and Investing - 4 laboratory sessions

A. CONDITIONS: Given a demonstration and reading assignments on waxing, spruing and investing the copings and using the following equipment and supplies:

1. Bunsen burner/electric waxer/no flame unit
2. inlay wax, sticky wax
3. carving instruments
4. trimmed dies
5. wax sprue, sprue former and ring
6. phosphate bonded investment
7. bowl, electric mixer, vibrator, pressure unit
8. microscope

B. PERFORMANCE: The student should be able to wax, sprue and invest the copings with at least 70% accuracy at the end of four sessions.

LAB 10, 11, 12. Burn Out & Casting, Casting Recovery and Finishing of Copings - 3 laboratory sessions

A. CONDITIONS: Given a demonstration and reading assignments on burn out and casting procedures, recovery and finishing of copings using the following equipment and supplies:
1. burnout oven
2. torch
3. broken arm or induction casting machine
4. alloy
5. crucible
4. aluminum oxide blaster
5. handpieces
6. assorted stones, silicones, carbide and diamond burs
7. microscope

B. PERFORMANCE: The student should be able to burn out, cast, recover castings, clean and finish the copings with at least 70% accuracy at the end of three sessions.

LAB 13, 14. 15, 16: Coping Preparation and Opaquing - 2 laboratory sessions

A. CONDITIONS: Given a demonstration and reading assignments on coping fabrication and handling conditioning/degassing, opaque application, firing procedures using the following equipment and supplies:
1. copings
2. handpiece
3. silicone, carbide, stone, diamond burs and wheels
4. porcelain oven
5. opaque
6. porcelain brushes, glass rod, spatula
7. microscope

B. PERFORMANCE: The student should be able to prepare the copings, degas, condition, apply opaque and fire them with at least 70% accuracy at the end of two sessions.

LAB 17, 18, 19, 20. Porcelain Build-Up and Firing: PFM Restorations - 4 laboratory sessions

A. CONDITIONS: Given a demonstration and reading assignments on building porcelain on copings and firing it in porcelain furnace at proper temperatures and cycles using the following equipment and supplies:
1. copings
2. porcelain
3. porcelain tools
4. porcelain oven

B. PERFORMANCE: The student should be able to build porcelain and fire it in porcelain oven at proper temperatures and cycles with at least 70% accuracy at the end of four sessions.

LAB 21, 22, 23. porcelain build-up and firing: pressable restorations - 3 laboratory sessions

A. CONDITIONS: Given a demonstration and reading assignments on building porcelain on pressable substructures and firing it in porcelain furnace at proper temperatures and cycles using the following equipment and supplies:
1. pressable copings/substructures
2. porcelain
3. porcelain tools
4. porcelain oven

B. PERFORMANCE: The student should be able to build porcelain on pressable substructures and fire it in porcelain oven at proper temperatures and cycles with at least 70% accuracy at the end of three sessions.

LAB 24, 25, 26, 27, 28, 29. Contouring, Shaping, Staining and Glazing - 6 laboratory sessions

A. CONDITIONS: Given a demonstration and reading assignments on shaping baked porcelain, preparing it for staining and glazing using the following equipment and supplies:
   1. hand piece
   2. assorted stones, silicones, carbite and diamond burs and disks
   3. baked restorations
   4. shade guide
   5. staining kit
   6. glazing kit
   7. firing tray and pegs
   8. microscope

B. PERFORMANCE: The student should be able to anatomically shape the PFM and pressable restorations using assorted grinding tools, apply glaze and stain matching the shade guide to complete each restoration according to the dentist's prescription with at least 70% accuracy at the end of six sessions.

LAB 30. Laboratory Clean Up

RESD 1215 LAB SESSION SCHEDULE FOR SPRING SEMESTER:

(Tentative Schedule, subject to change)

LAB SESSIONS	TOPIC
1	INFECTION CONTROL PROCEDURES, MODEL FABRICATION, PINNING, AND ARTICULATION
2	CAST PREPARATION, DIE TRIMMING AND MARGIN IDENTIFICATION
3-12	ALL CERAMIC RESTORATIONS WAXING & PRESSING
13-15	COPING & FULL COUNTOUR WAX UPS, INDEXING OF FACIAL SURFACES, SPRUING & INVESTING
16-18	INVEST, BURN OUT, CASTING, PRESSING
19-20	RECOVERY, SEATING AND TRIMMING UTILIZING MAGNIFICATION
21	PFM RESTORATIONS: PORCELAIN BUILD-UP AND FIRING
22-23	PRESSABLE RESTORATIONS: INCISAL PORCELAIN BUILD-UP AND FIRING
24-29	PRESSABLE RESTORATIONS: CONTOURING, SHAPING, STAINING AND GLAZING ALL
30	FINAL GRADING, RETURNING EQUIPMENT AND CLEAN UP

NEW YORK CITY COLLEGE OF TECHNOLOGY
THE CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF
RESTORATIVE DENTISTRY

DATE: _____
ROOM_____

INSTRUCTOR: _____

RESD 1215 - LABORATORY GRADING SHEET

(50% of the final grade of the course)

STUDENT'S NAME: _____

*** Students will be provided with 3D printed master casts, opposing and dies**

Infection control, model and die fabrication, articulation _____5% (pts)

Disinfecting	1 pt	workstation 0.5 pt., use of PPE 0.5 pt.
Ditching dies	1pt	margins properly identified 0.5 pt, magnification utilized 0.5 pt
Articulation	2 pts	properly interdigitate 1 pt, articulated 1 pt
Follow instructions	1 pts	
STUDENT OBTAINED POINTS:		

PFM: individual wax up & casting (1 crown) _____8% (pts)

Wax-up with lingual collar tooth # 3	2 pts	wax up 1.5 pt, magnification utilized 0.5 pt
Spruing	1 pt	proper location 0.5 pt, sprue attachment 0.5 pt.
Casting	2 pt	fully casted 1 pt, clean castings 1 pt.
Metal finishing	2 pt	contour & smoothness 0.5 pt, fit on the die 0.5 pt, thickness 0.5 pt, magnification utilized 0.5 pt
Follow instructions	1 pt	
STUDENT OBTAINED POINTS:		

PFM: application and firing of porcelain (1 crown) _____4% (pts)

Opaque application for # 3	1 pts	completely masking 0.5 pt., eggshell luster 0.5 pt.
Build-up	1 pts	margin 0.25 pt., opacious dentin 0.25 pt., dentin 0.25 pt., enamel 0.25 pt.
Firing and adjustments	1 pts	properly fired porcelain 0.4 pt., color 0.4 pt., magnification utilized 0.2 pt
Follow instructions	1 pt	
STUDENT OBTAINED POINTS:		

PFM contouring, shaping, staining and finishing (1 crown) _____ 6% (pts)

Contacts and anatomy for # 3	2 pts	contacts 0.3 pt., occlusion 0.3 pt., contour 0.3 pt. (matching adjacent & opposing teeth), magnification utilized 0.1 pt.
Stain & Glaze	2 pts	stain 1 pt. (to match the shade guide), glaze 1 pt.
Metal collar polishing	1pts	no visible scratches 0.5 pt., high shine 0.5 pt.
Follow instructions	1 pt	
STUDENT OBTAINED POINTS:		

All-ceramic: wax ups (3 crowns) _____ 20% (pts)

Maxillary central #8 –coping	6 pts	contour & smoothness 2 pt, fit on the die 2 pt, thickness 1.5pt, magnification utilized 0.5 pt
Maxillary canine # 6 – cut-back labial coping	6 pts	contour & smoothness 2 pts., fit on the die 1 pt, thickness 1 pt, cut-back thickness & design – 1.5 pt. magnification utilized 0.5 pt
Maxillary first molar # 14 – full contour (monolithic)	7 pts	Contour & smoothness 2 pt, fit on the die 2 pt, , anatomy 1 pt, occlusal & proximal contacts – 1 pt.
Follow instructions	1 pt	
STUDENT OBTAINED POINTS:		

All-ceramic: application & pressing (3 crowns) _____ 20%(pts)

Spruing	3 pt	proper location 2 pt., sprue attachment 2 pt.
Pressing	8 pt	fully pressed 4 pt., clean pressables 4 pt.
Finishing	8 pts	Contour & smoothness 3 pt.., fit on the die 2 pt., thickness 1 pt, redefine anatomy 1 pt., magnification utilized 1 pt
Follow instructions	1 pt	
STUDENT OBTAINED POINTS:		

All-ceramic: application and firing of porcelain (3 crowns) _____20% (pts)

Build-up	10 pts	porcelain layering 8 pt. (proper application of porcelain powders), porcelain thickness 2pt. (not overbuilt)
Firing and adjustments	9 pts	properly fired porcelain 6 pt. (fused, no bubbles), using the correct firing/baking program 3 pt.
Follow instructions	1 pt	
STUDENT OBTAINED POINTS:		

All-ceramic: contouring, shaping, staining and finishing (3 crowns) _____ 8% (pts)

Contacts and anatomy	4 pts	Mesial contact 0.5pt., distal contact 0.5 pt., occlusal contact 0.5 pt., contour and anatomy 1 pt. (meeting defined occlusal scheme), magnification utilized 0.5 pt
Stain & Glaze	2 pts	stain 1 pt. (matching shade guide), glaze 1 pt.
Porcelain polishing	1 pts	surface texture 0.5 pt., high shine 0.5 pt.
Follow instructions	1 pt	
STUDENT OBTAINED POINTS:		

Foil matrix for porcelain jacket crown (1 crown) _____5% (pts)

Correct cut of the foil for tooth # 6	1 pt	Correct width 05.pt, correct length 0.5 pt.
Adaptation/burnishing of foil to die for tooth # 6	2 pts	No space between foil and die 1 pt., smooth surface 1 pt.
Tinner joint	1 pts	Thickness of the joint 0.5 pt., smoothness 0.5 pt.
Follow instructions	1 pt	
STUDENT OBTAINED PONTS:		

Clean and neat_____4% (pts)

Evaluation Criteria - TOTAL LAB_____100% (pts)

RESD 1215 SUMMER EXTERNSHIPASSIGNMENT – 10% (pts)

Before the Summer Externship Program starts, it is mandatory that all RD students must complete the ESPAC training in Brightspace, obtain the certificate and email the certificate to the Externship Program Coordinator Prof. Laura Andreescu at Landreescu@citytech.cuny.edu. PLEASE REVIEW THE EXTERNSHIP PPROGRAM INSTRUCTIONAL VIDEO AND POWER POINT PRESENTATION.
All RESD 1215 students will be assigned a summer externship location. The location may be a dentist's office or commercial dental laboratory.

Each student is required to **dress professionally and arrive on site on time and stay for the entire duration of assigned days and times**.

RESD 1215 final grade will be computed on the basis of 50% of laboratory grade, 40% of lecture examination grades, and 10% summer externship assessment. The student must pass all 3 parts of the course in order to complete the course. It is equally imperative that each student conducts him/herself in a highly professional manner at all times and follows the exact instructions of the host site and the evaluators.

As the placement concludes, each student and his/her assigned host site will receive a **detailed survey** to determine the outcomes and experiences gained through the externship participation.

The **evaluation of student's participation** will be conducted by the host site, then reviewed and recorded by the faculty assigned as summer externship coordinator at the end of the summer. The goal of this activity is to develop the skill as well as to expose DLT students to the day-to-day operations of the dental facility and interactions between dental team members.

Once the externship is completed, the student is required to submit the short essay describing his/her experience:

- **2-4 pages long, 12 font, double spaced, page numbers, report's date**
- **include student, coordinator and externship site names**
- **include dates of externship**
- **include the report of the experiences and the names of everyone the student worked with**
- **report is due by assigned date given with externship site assignment by Summer Externship** Coordinator **Prof. Laura Andreescu**

RESD 1215 final grades will be transmitted to the Registrar Office after all summer externship surveys and reports are collected, approximately the beginning of September.

Should there be any questions, contact the Department of Restorative Dentistry at 718 260-5137 or email Summer Externship Coordinator Prof. Laura Andreescu at Landreescu@citytech.cuny.edu.

Summer Externship Important Information:

June-July **Complete Externship Assignment** (24 hours required).
Failing to complete Externship Assignment will result in failing grade for the **course.**

August 1 **Externship Essay and Student Survey due date to submit in electronic form in Brightspace**
Late essays and surveys will not be accepted and will result in failing grade for the course.

GRADING FOR SUMMER EXTERNSHIP PROGRAM:
STUDENT ESSAY_____8%
STUDENT SURVEY _____2%
TOTAL SUMMER EXTERNSHIP ___10%

GRADING RUBRIC FOR SUMMER EXTERNSHIP ESSAY

CRITERIA	EXCELLENT 6-8	SATISFACTORY 3-5	UNSATISFACTORY 0-2
Organization	The report's introduc1on is invi1ng, states the main topic, and provides an overview of the report. The informa1on is relevant and detailed. The conclusion is strong.	The report is well structured, presen1ng some details regarding the main topic.	There is no structure in the report and is missing important detailed informa1on regarding the main topic.
Content	The report is well- writen presen1ng facts and useful informa1on. The student exhibits a good understanding of the topic.	The report was concise, and the informa1on presented was related to the topic. The student shows understanding of the topic.	The report is poorly written and missing important informa1on about the topic. The student shows little understanding of the topic.
Spelling/ Grammar	Excellent written skills, correct spelling, and grammar.	Good written skills, minimal spelling, and grammar errors.	Poor wri1ng skills, numerous spelling, and grammar errors.
Work cited/ references	Work is correctly cited and formulated in MLA style with no errors in form or style, or informa1on.	Work is correctly cited and formulated in MLA style with only one or two minor errors in forms or style, or informa1on.	There is no cita1on, or it is completely incorrect.

2025 SUMMER EXTERNSHIP PROGRAM SCHEDULE

(Tentative schedule, subject to change)

Date	**Tasks and who is responsible**	**Due date**	**Externship Instructional Materials**
February 2025	Students must complete ESPARC training and email their certificates to the coordinator	LAST DAY TO EMAIL CERTIFICATES 02/28/2025	Brightspace NYCCT 2024-2025 Student ESPARC training
February 2025	Coordinator will collect students' preferences	03/14/2025	Externship Letter to Students
March 2025	Coordinator will contact externship sites for their participation	03&04/2025	Externship letter to participants
April 2025	Coordinator will assign the students to externship sites	04/30/2025	Externship Student assign letter
April 2025	Students contact and make arrangements for externship with the participants	05/31/2025	
May 23 to July 18 2025	Students participate and complete their externships	Last day of the externship July 18 2025	
July to 21 August 1st 2025	Students complete and post in Brightspace the Report and Survey Coordinator will send out surveys to externship participants	LAST DAY FOR SUBMITING EXTERNSHIP ASSIGNEMENTS: August 1, 2025	Externship Report Sample- Brightspace Externship Participants surveys - Brightspace
August 2025	Coordinator will grade the students' assessments and post the grade to Register Office	08/2025	
September 2025	Coordinator will write the Restorative Dentistry Summer Externship Program Report and send it to department chair and the Northeastern Gnathological Academy of Multidisciplinary Dentistry	09/2025	