NEW YORK CITY COLLEGE OF TECHNOLOGY **DEPARTMENT OF**
THE CITY UNIVERSITY OF NEW YORK **RESTORATIVE DENTISTRY**

DEPARTMENT: RESTORATIVE DENTISTRY
COURSE CODE & TITLE: RESD _2311_____

COURSE COORDINATOR: PROF. Avis J. Smith
Phone: 718-260-5137 Email: asmith@citytech.cuny.edu
Office Hours: To be determined
Room A601 Day _____ Hours_____

LECTURE INSTRUCTOR/S: PROF. Andrew A. Pica
Email: apica@citytech.cunby.edu
Office Hours:

LAB INSTRUCTOR/S: PROF. Andrew A. Pica
Email: apica@citytech.cunby.edu
Office Hours:

COURSE DESCRIPTION: Fabricating an immediate denture, set-up for an immediate full denture, restoring aesthetics, fit and function. The procedures for rebases and surgical trays are also stressed. Removable portion of over denture is designed, constructed and supported by a clip bar substructure.

CLASS CREDITS: 3 credits
CLASS HOURS: 1 laboratory sessions – 8:30AM-11:00AM

NUMBER OF WEEKS: 15 Weeks

CURRICULUM LEVEL: First semester

PREREQUISITE: RESD 1211

REQUIREMENTS: Standard college and department regulations.
Proper uniform and conformity to safety regulations.

QUIZZES AND EXAMINATIONS:

Students are responsible for knowing all material covered in reading assignments, handouts, lecture and laboratory. Students are responsible for knowing information from reading assignments regardless of whether it has been covered during class sessions or not. There will be three examinations that will account for the majority of the lecture score (quiz, midterm and final). In addition to the major exams, there will be quizzes/assessments that will be conducted during each lecture session. They will be based on prior lecture sessions and reading assignments that should be completed prior to current lecture. There will be no make-up examinations.

TEXTBOOKS: Dental Laboratory Technology – Removable Prosthodontics, Air Force Pamphlet, 47103, Vol. I, 15 Nov. 2005.

REFERENCES:

1. Dental Laboratory Procedures - Complete
2. Dentures, Morrow, Rudd, Eissman, Vol I, C. Mosby Co., St. Louis Mo.
3. Dental Laboratory Technology, Nicholas Martinelli, Third Edition, C.V. Mosby Co.
4. All previous Air Force Manuals including 162-6.
5. Fundamentals of CAD/CAM Dentistry

WEB REFERENCES: Ask.Com, Wikipedia, 3 Shape, and Dental Wings,

POLICIES:

ACADEMIC INTEGRITY

CUNY Policy on Academic Integrity

Academic dishonesty is prohibited in 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

1. 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.
2. Plagiarism in lecture or laboratory assignments, exams or projects will not be accepted. Student will not receive a grade if papers or assignments were done by someone else. The department will adhere and follow the Academic Integrity Policy and Procedures as per NYCCT & CUNY Policies.
3. 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.
4. 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.

NYCCT REASONABLE ACCOMODATIONS

Qualified students with disabilities, under applicable federal, state and city laws, seeking reasonable accommodations or academic adjustments must contact the Center for Student Accessibility for information on City Tech's policies and procedures to obtain such services. Students with questions on eligibility or need for temporary disability services should also contact the Center at : The Center for Student Accessibility, 300 Jay Street room L-237, 718 260-5143, http://www.citytech.cuny.edu/accessibility/

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. In order to successfully complete Restorative Dentistry courses, students must consistently participate in classes and meet deadlines as stated in course syllabus.

- Restorative Dentistry students will be allowed 10% of unexcused absences, with two latenesses accounting for one absence, in didactic and laboratory sections of the course. Once the 10% absence is exceeded, the student will receive 10% lower grade for that section of the course. It is strongly advised that students are present for all classes during the semester including 30 laboratories and 15 lectures.
- Classes will begin promptly at the scheduled time.
- Students enrolled in RESD course must meet all course requirements as stated in course syllabus in order to pass it. 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.
- The students are required to observe course instructor's demonstrations and complete all fabrication tasks under course instructor's supervision. Laboratory demonstrations are usually conducted at the beginning of the session and cannot be redone for the convenience of the student who arrives late or is absent.
- When student is given instructor's permission to leave the class, the student must return to class in a reasonable time."

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. Student must achieve a passing grade of at least 70% in the laboratory and at least 70% in the lecture sections of the course in order 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%
B = 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 whose 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 courses will be required to repeat that course. RESD course may only be repeated once requiring the full duration and fulfillment of all requirements of the lecture

and laboratory sections of the course. 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.

PROFESSIONALISM & ETHICS

1. 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.
2. 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 student's grade.
3. All faculty members will be addressed by their proper title.
4. Students are required to use proper dental terminology when discussing dental prosthesis.
5. Students are to have all required instruments and supplies when attending laboratory sessions.
6. Students are not permitted to do other students' work although assistance and teamwork are strongly encouraged.
7. All electronic devices must be turned off during all RESD classes unless otherwise specified by the instructor.
8. Each RESD student will be assigned a locker in the beginning of each semester and will vacate the locker by the last day of the semester. If the locker is not returned back in 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.
9. 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.
10. 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.

DRESS, SUPPLIES & TEXTBOOKS

1. Laboratory smocks (lab coats) with Restorative Dentistry Department emblem must be worn at all times 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.
2. Closed-toe shoes are required while working in the laboratory.
3. No hats/caps of any type are to be worn in the laboratories. *(Except for religious reasons)*
4. 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 student's name.
5. 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.
6. RESD students are responsible for their belongings at all times. Restorative Dentistry Department does not take responsibility for left over 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.
7. Burnout furnaces and porcelain furnaces are potentially dangerous. Tongs should be used when picking up hot casting rings or ceramic work.
8. 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.
9. Safety eye glasses must be worn by all occupants of the laboratory while any procedures are being conducted that produce dust or airborne particles. Safety eye glasses with side shields may be obtained from a hardware store. They are essential to the students' safety.
10. Eye protection measures should be taken when working with curing lights, lasers, and heating or melting metal.
11. Proper mask (N95) should be worn when grinding metals, ceramics, and acrylics or when using materials creating dust.
12. Students not enrolled in a RESD course, from this and other departments, will not be permitted to visit during laboratory sessions.
13. 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 bench top during laboratory sessions.
2. Students are required to clean-up working areas and equipment at the conclusion of any procedure. Timely clean-up 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 work station spotless by removing all debris, papers, wax, plaster, etc. from drawers, work station tops and floors in the immediate vicinity of the seat before leaving.
4. Each student is assigned responsibility for maintaining the cleanliness of an area used in common by all members of the class.
5. Equipment such as duplicating flasks, articulators or any other equipment that belongs to the department and is used by the student during the laboratory session or during the entire semester must be returned clean and in good working condition otherwise the student is financially responsible for repaying broken or missing equipment, and hold may be placed throughout CUNY system for registration to any courses until the payment is made.

RESD 2311 GENERAL EDUCATION STUDENT LEARNING OUTCOMES:

Upon successful completion of the course each student should be able to:

1. Site the advantages and disadvantages of immediate complete dentures and over denture.
2. Prepare baseplates and occlusal rims for an immediate denture and over-denture.

3. Explain methods for preventing disease transmition when fabricating complete dentures.
4. Ethics and the application of ethics to quality treatment of patients

RESD 2311 ASSESSMENT OF GENERAL EDUCATION STUDENT LEARNING OUTCOMES:

The instructor will evaluate the students' achievement of the learning outcome by:

1. Reading assignments and writing to assess using rubrics in TK20 assessment system.
2. Assessment will also be done using exams; Quiz, Mid-Term and Final multiple choice.
3. Lab assessment will include project with specific grading criteria.
4. All other outcomes will follow the previous RESD 2311 outcomes

GEN ED ASSESSMENT: This may also include assessment of student reading and writing assignments covering the following areas, and assessed using the TK 20 System of rubrics.

Creative Thinking
Ethical Reasoning
Foundations and Skills for Lifelong Learning
Information Literacy
Inquiry and Analysis
Integrative Learning
Oral Communication
Reading
Writing

RESD 2311 ASSESSMENT & GRADING

LECTURE	40%
LABORATORY	60%

*TOTAL - FINAL GRADE 100%

* Additional Projects may be available
* Participation will be based on alertness in class, participation in class discussion, and homework.

Final grade will be computed on the basis of 60% of laboratory grade and 40% of lecture grade. Each individual's performance will be assigned a conventional letter grade.

NYCCT LETTER GRADE SCALE:

A = 93- 100%
A- = 90-92.9%
B+ = 87-89.9%
B = 83-86.9%
B- = 80-82.9%
C+ = 77-79.9%
C = 70-76.9%
D = 60-69.9%
F = 59.9% and below

RESD 2311 LECTURE ASSESSMENT CRITERIA
Lecture 40% of total course grade

Total Lecture points are 40% of Lab and Lecture final grade/no extra credit
Quiz: 10%; Mid-Term 15% and Final 15%

* Student must achieve a passing grade of at least 70% in the lecture section to pass the class

RESD 2311 LAB ASSESSMENT CRITERIA
Laboratory Projects 60% of total course grade

1. Tooth Extraction: 20 Points
    a. Extraction sight Contour - 10 points
    b. Smooth Contour (No sharp Protuberances) - 10 points
2. Occlusal Plane: 5 Points
    a. Ideal Flat Plane
3. Characteristic Points Lower: 5 Points
    a. Landmarks properly annotated
4. Characteristic Points Upper : 5 Points
    Landmarks properly annotated
5. Upper Jaw Boundary: 5 Points
    a. Accurate border
6. Lower Jaw Boundary: 5 Points
    a. Accurate Border
7. Tooth Setup: 35 Points
    a. Midline - 6 points
    b. Proper Incisal edge/ Cusp Contact on Occlusal Plane- 6 points
    c. Over the Center of the Ridge - 6 points
    d. Cusp to Fossa Relationship - 6 points
    e. Arch Uniformity - 6 points
8. Upper Gingival Contour: 15 Points
    a. Gingival Margin – 5 points
    b. Root Eminences – 5 points

c. Presentable Final Result – 5 points

9. Lower Gingival Contour: 15 Points
   a. Gingival Margin– 5 points
   b. Root Eminences – 5 points
   c. Presentable Final Result – 5 points

TOTAL LAB 100 pts

* Student must achieve a passing grade of at least 70% in the lab section to pass the class

RESD 2311 LECTURE SCHEDULE
(Tentative Schedule, subject to change)

Unit	Dates	Topic: Goals & Objectives	Brightspace Session Date/Time	Activities/Assignments 6-6:50	Due Dates
1	9/9	**1) Intro to CAD/CAM** **2) Scanning Lecture**	SYNCHRONOUS LECTURE	• Introductions and formalities •	9/15
2	9/16	**1) Immediate Denture Analog Review**	SYNCHRONOUS LECTURE	• Understanding different systems and their compatibility and diversity • Icon Functions • Workflow Bar • Visualization Bar • Viewing Bar	9/22
3	9/23	**1) Design Tools** **2) Quiz Review**	SYNCHRONOUS LECTURE	• Icon Functions • Workflow Bar • Visualization Bar • Viewing Bar	9/29
4	9/30	**QUIZ**	**NO LECTURE**	• QUIZ (Must take on scheduled due date)	9/30
5	10/7	Comprehensive overview of Anatomy Design Stage	SYNCHRONOUS LECTURE	• Maxillary base tools • Connectors	10/14
6	10/15	**Intro to Computer Aided Manufacturing (CAM)**	SYNCHRONOUS LECTURE	• Discussion Board • Multiple Choice Assessment • Review Laboratory Instructional Videos • Required Readings	10/20
7	10/21	**MIDTERM REVIEW**	SYNCHRONOUS LECTURE	• Group discussion	10/27
8	10/28	**MIDTERM EXAM**	**NO LECTURE**	• MIDTERM (Must take on scheduled due date)	10/28
9	11/4	**Millbox Introduction**	SYNCHRONOUS LECTURE	• Vpanel • Digital Tools • Milling tools	11/10
10	11/11	**Guide to Tool Setup & Strategy**	ASYNCHRONOUS LECTURE	• Review Laboratory Instructional Videos • Required Readings	11/17
11	11/18	**Nesting Dentures in Millbox**	SYNCHRONOUS LECTURE	• Pucks • Cartridges • Practical Milling • Required Readings	11/24
12	11/25	**Intro to 3D Printing Dentures**	SYNCHRONOUS LECTURE	• Why Print? • Printer Capabilities and Limitations •	12/1
13	12/2	**Post Processing of Digitally Designed Immediate Denture**	SYNCHRONOUS LECTURE	• Milled or Printed • Post milled procedures • Post printed procedures • Finishing • Polish and High shine	12/8
14	12/9	**Review**	SYNCHRONOUS LECTURE	• Prepare for Final Exam	12/15
15	12/16	**FINAL EXAM**	**NO LECTURE**	• FINAL EXAM (Must take on scheduled due date)	12/16

Course Schedule Subject to Change, Instructor Will Give Notice in the Event of Schedule Changes

RESD 2311 LECTURE OUTCOMES ASSESSMENT EVALUATION SHEET

Provide grade details for lecture projects

Lecture Grade will consist of the following:

1. Quiz 10%
2. Mid-Term 15%
3. Final Exam 15%

Total: 40%

NEW YORK CITY COLLEGE OF TECHNOLOGY **RESTORATIVE DENTISTRY**
THE CITY UNIVERSITY OF NEW YORK **DEPARTMENT**

RESD 2311 LABORATORY COURSE OUTLINE

Unit	Dates	Topic: Goals & Objectives	Brightspace Session Date/Time	Time Frames 2:30-5:00	Due Dates
1	9/9	**3) Immediate Denture Analog Review** **4) Introduction to CAD/CAM**	SYNCHRONOUS	• (Immediate Denture Analog) • (Intro CAD/CAM)	9/15
2	9/16	**1) Scanning & Importing Files** **2) Digital Extraction of Teeth**	SYNCHRONOUS	• Manipulating files within 3shape • Predicting what the extraction sites are going to look like	9/22
3	9/23	**1) Anatomical Landmarks & Splines** **2) Tooth Libraries**	SYNCHRONOUS	• Understand and manipulate 3shape workflow • Choosing a proper tooth library	9/29
4	9/30	**1)Tooth placement**	SYNCHRONOUS	• Understanding how to properly do a digital tooth setup	10/6
5	10/7	1) **Tooth placement (Cont'd)** 2) **Gingiva and tools**	SYNCHRONOUS	• **Finishing tooth setup** • **Initializing gingiva** • **Understanding tools**	10/14
6	10/15	**1) Gingiva and tools (cont'd)** **2) Connectors**	SYNCHRONOUS	• Finalizing gingiva • Establishing tooth connectors	10/20
7	10/21	**1) Anatomy Design** **2) Gingival Finalization**	SYNCHRONOUS	• Finalizing tooth anatomy and morphology • Establishing Occlusal stops for proper centric relation orientation • Digital festooning	10/27
8	10/28	**MIDTERM EXAM**	**NO LAB**	• MIDTERM (Must take on scheduled due date)	11/3
9	11/4	**1) AnatomyDesign (cont'd)** **2) Gingival Finalization (Cont'd)**	SYNCHRONOUS	• Finalizing design • completing Digital Immediate Denture	11/10
10	11/11	**1) Manufacturing settings** **2) Outputting an STL file**	SYNCHRONOUS	• Preparing to output design and begin CAM process	11/17
11	11/18	**1) Immediate Maxillary Denture** **2) Order form** **3) Tooth extraction**	SYNCHRONOUS	• Repeating process on single arch	11/24

12	11/25	**1) Anatomical landmark and splines** **2) Tooth libraries**	SYNCHRONOUS	• Preparing maxillary immediate denture	12/1
13	12/2	**1) Tooth placement** **2) Gingiva and tools**	SYNCHRONOUS	• Designing Immediate denture • Designing gingiva	12/8
14	12/9	**1) Anatomy Design** **2) Gingival Finalization**	SYNCHRONOUS	• Finalizing Maxillary Immediate denture	12/15
15	12/16	**FINAL EXAM**	**NO LAB**	• FINAL EXAM (Must take on scheduled due date)	12/16

Course Schedule Subject to Change, Instructor Will Give Notice in the Event of Schedule Changes

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Students are required to track their attendance and track the grades they receive given by the professor using the charts below. This will help them to know their mid-semester grades and all grades leading to the end of the semester.

Attendance	Task	Start	Finished	Grade Points	Total
Lab 1					
Lab 2					
Lab 3					
Lab 4					
Lab 5					
Lab 6					
Lab 7					
Lab 8					
Lab 9					
Lab 10					
Lab 11					
Lab 12					
Lab 13					
Lab 14					
Lab 15					

Lectures	Present	Absent	Late	Quiz	Mid Term	Final Exam	Total
Lect. 1							
Lect.2							
Lect. 3							
Lect. 4							
Lect. 5							
Lect. 6							
Lect. 7							
Lect. 8							
Lect. 9							
Lect. 10							
Lect. 11							
Lect. 12							

Lect. 13							
Lect. 14							
Lect. 15							

Syllabus revised: December 2019, by Avis J. Smith