Dental Assisting

Program Manual
2015

Mohave Community College
3400 Highway 95
Bullhead City, AZ 86442

928.704.7797

Table of Contents

DENTAL ASSISTING PROGRAM

Program Director
Tracy Gift RDH, MS

FACULTY
Robbi Baleno, RDH, M.Ed.
Tonya Wade, CDA, BS (c)

STAFF
Tess Fike, Operations Specialist
Kathy Johnson, Clerk

MCC DENTAL PROGRAMS MISSION STATEMENT

Mohave Community College Dental Programs is dedicated to student success and learning by providing diverse educational opportunities, excellence in teaching and encouragement of lifelong learning and professional development.

MCC DENTAL PROGRAMS VISION STATEMENT

We believe that the educational experience is a life-long process. We vow to treat students with respect and as colleagues from day one. We will approach education in a timely, purposeful way. Further we agree to be attentive to any student who feels this philosophy is not being met. Our primary purpose is to provide the highest quality of education while recognizing and respecting the dignity of each individual. Students, while having the responsibility of their own learning are provided a physical and emotional atmosphere conducive to learning. Mutual respect between faculty, staff and students will be demonstrated in all endeavors. Students will be encouraged to attain their professional goals while realizing their individual potential as learners and newly licensed professionals

We believe our mission is to work effectively together, and with students, to provide an educational setting where students have the opportunity to become dental professionals who are personally, professionally, and socially effective.

Students will understand that serving the needs of the public who seek treatment in our clinic involves respecting the individuality, dignity, and rights of every person regardless of race, color, creed, national origin, sexual orientation, socioeconomic or medical/dental status.

Graduates of our program will understand that dental assisting is a multi-faceted health profession. As a member of that profession they are expected to serve humanity competently whether as a clinician, educator, consumer advocate, researcher, or change agent.

PERFORMANCE STANDARDS FOR DENTAL PROGRAMS

In order to be admitted to or continue in the Dental Assisting Program, a student must have skills and abilities essential to perform as a dental professional. Reasonable accommodations will be made on an individual basis; however, the candidate must be able to perform in an independent manner.

STANDARD		EXAMPLES OF ACTIVITIES
Critical Thinking	Critical thinking ability sufficient for clinical judgment.	Identify cause-effect relationships in clinical situations, develop treatment plans.
Communication	Communication abilities sufficient for effective interaction with patients and other members of the healthcare team in verbal and written form.	Able to obtain information, explain treatment procedures, initiate health education training, describe patient situations, perceive non-verbal communications.
Mobility	Physical abilities (including standing, walking, bending, range of motion of extremities) to move from room to room and maneuver in small spaces.	Able to administer cardiopulmonary resuscitation; move around in patient treatment area.
Motor	Gross and fine motor function sufficient to provide safe and effective dental assisting care.	Able to use dental instruments, manipulate various dental materials
Hearing	Auditory ability sufficient to monitor and assess health needs.	Able to listen to breath and heart sounds. Able to hear equipment monitors, such as x-ray equipment and autoclave timers.
Visual	Visual ability sufficient to provide safe and effective dental assisting care.	Able to observe patients and use instruments in the oral cavity. Adequate close vision to see small lesions and deposits on teeth.
Tactile	Tactile ability sufficient for physical assessment and scaling skills.	Able to perform palpation of a pulse, extraoral and intraoral structures, and feel calculus deposits.

Adapted by permission from Southern Council on Collegiate Education for Nursing and Medical College of Georgia.

DENTAL ASSISTING COMPETENCIES

This document describes the abilities expected of a dental assistant entering the profession.

As an integral member of the healthcare team, a major role of the dental assistant is to be a second pair of hands to the dentist; therefore, Dentists look for people who are reliable, can work well with others, and have good manual dexterity. We feel the competencies listed below describe the desired combination of knowledge, psychomotor skills, communication skills, and attitudes, as well as the standards used to measure the assistant's independent performance.

In a document designed by the American Dental Education Association, it is suggested that allied dental students should exhibit competence in five domains. They are Core Competencies, Health Promotion and Disease Prevention, Community, Patient/Client Care and Professional Growth and Development.

Competency 1
Core Competencies **(C)** reflect the ethics, values, skills and knowledge integral to all aspects of the allied health professions. These core competencies are foundational to all the roles of the allied dental professional.

C.1 Apply a professional code of ethics in all endeavors.
C.2 Adhere to state and federal laws, recommendations and regulations in the provision of oral health care.
C.3 Use critical thinking skills, comprehensive problem solving, and evidence-based decision making to identify oral health care strategies that promote patient or client health and wellness.
C.4 Use evidence based decision making to evaluate and incorporate emerging treatment modalities.
C.5 Assume responsibility for professional actions and care based on accepted scientific theories and research as well as the accepted standard of care.
C.6 Continuously perform self-assessment for life-long learning and professional growth.
C.7 Integrate accepted scientific theories and research into educational, preventative and therapeutic oral health services.
C.8 Promote the values of the profession through service-based activities, positive community affiliations, and active involvement in local organizations.
C.9 Apply quality assurance mechanisms to ensure continuous commitment to high standard of care.
C.10 Communicate effectively with diverse individuals and groups, serving all persons without discrimination by acknowledging and appreciating diversity.
C.11 Provide accurate, consistent and complete documentation for assessment diagnosis, planning, implementation, and evaluation of oral health services.
C.12 Facilitate a collaborative approach with all patients or clients when developing and presentation of individualized care plans that are specialized,

comprehensive, culturally sensitive, and acceptable to all parties involved in care planning.

C.13 Facilitate consultations and referrals with all relevant health care providers for optimal care.

C.14 Manage medical emergencies by using professional judgment, providing life support and utilizing required CPR and any specialized training or knowledge.

Health Promotion and Disease Prevention **(HP)** is a key component of health care. Changes within the health care environment require the allied dental professional to have a general knowledge of wellness, health determinants and characteristics of various patient or client communities.

HP.1 Promote positive values of overall health and wellness to the public and organizations within and outside the profession.

HP.2 Respect goals, values, beliefs and preferences of all patients or clients

HP.3 HP.4 Identify individual and population risk factors and develop strategies that promote health related quality of life.

HP.4 Evaluate factors that can be used to promote patient or client adherence to disease prevention or health maintenance strategies.

HP.5 Utilize methods that ensure the health and safety of the patient or client and the oral health professional in the delivery of care.

Community Involvement **(CM)**: Allied dental professionals must appreciate their roles as health professionals at the local, state and national levels. While the scope of these roles will vary depending on the discipline, the allied health dental professional must be prepared to influence others to facilitate access to care and services.

CM.1. Assess the oral health needs and services of the community to determine action plans and availability of resources to meet the health care needs.

CM.2 Provide screening, referral and educational services that allow patients or clients to access the resources of the health care system.

CM.3 Provide community oral health services in a variety of settings

CM.4 Facilitate patient or client access to oral health services by influencing individuals or organizations for the provision of oral health care.

CM.5 Evaluate reimbursement mechanisms and their impact on the patient or client's access to oral health care.

CM.6 Evaluate the outcomes of community based programs and plan for future activities.

CM.7 Advocate for effective oral health care for underserved populations.

Patient/Client Care **(PC)**: The three primary allied dental professionals have different roles regarding patient or client care. These are reflected in the competencies presented for each discipline. The roles of the allied dental disciplines in patient or client care are ever changing, yet central to the maintenance of health. Allied dental graduates must use their skills to assess, diagnose (DH), plan, implement and evaluated treatment or services provided. Allied dental personnel must be appropriately

educated and credentialed for the patient and client services they provide, and these requirements vary by individual jurisdictions,

PC.1 Systematically collect, analyze and record diagnostic data on the general, oral, and psychosocial health status of a variety of patients and clients, using methods consistent with medico-legal principals.
PC. 2 Recognize predisposing and etiologic risk factors that require intervention to prevent disease.
PC.3 Recognize the relationship between systemic disease, medications, and oral health that impact overall patient or client care and treatment outcomes.
PC.4 Identify patients or clients at risk for a medical emergency and manage the patient/client care in a manner that prevents an emergency.

Planning
PC.5 Select and assemble the appropriate materials and armamentarium for general and specialized patient or client care.
PC.6 Collaborate with the patient or client, and other health professionals and indicated, to formulate a comprehensive care plan that is patient or client-centered and based on the nest scientific evidence and professional judgment.

Implementation
PC.7 Utilize universal infections control guidelines for all clinical procedures.
PC.8 Provide, as directed, restorative procedures that preserve tooth structure, replace missing or defective tooth structure, maintain function, are esthetic, and promote soft and hard tissue heath.
PC.9 Provide clinical supportive and intra-oral treatments within the parameters of general and specialized patient care.
PC.10 Prevent, identify and manage medical and dental emergencies.

Evaluation
PC.11 Evaluate the effectiveness of the provided services and modify as needed.

Professional Growth and Development **(PGD)** reflect opportunities that may increase patients' or clients' access to the oral health care system or may offer ways to influence the profession and the changing health care environment. The allied dental professional must possess transferable skills (e.g., in communication, problem solving, and critical thinking) to take advantage of these opportunities.

PGD.1 Pursue career opportunities within health care, industry, education, and research.
PGD.2 Develop practice management and marketing strategies to be used in the delivery of oral health care.
PGD.3 Access professional and social networks to pursue professional goals.

LICENSURE REQUIREMENTS

Dental assisting licensure requirements vary from state to state. Some states require certification and licensure and others do not. The state of Arizona does not require licensure for dental assistants. However, a dental assistant is required to be certified in order to take radiographs or perform coronal polish. The Dental Assisting National Board (DANB) is the testing body for these functions. These exams can be completed at Mohave Community College. You must register for the exam with DANB. You can download the information from www.danb.org. Refer to the Arizona Revised Statutes for current requirements.

REMEDIATION / TERMINATION POLICY

We, the dental programs faculty, are here to help the student succeed. However, we realize that at times there are barriers that prevent the student from reaching required and expected competencies and goals. The following is the MCC Dental Programs department policy regarding remediating the student, and, if necessary, terminating the student's dental assisting education at MCC.

Academic:

- All dental assisting courses must be passed with a grade of "C" or better; grades of "D" and "F" are not passing grades in this department.

Behavioral:

- Violations of stated department policies will result in a Critical Incident Report.
- Receipt of three (3) Critical Incident Reports during the program will result in the student's termination from the dental assisting program.

Clinical/Lab:

- Each clinical semester grade must be a "C" or better; a "D" or "F" will result in termination from the dental assisting program.
- In addition, lab competencies must be passed at the stated competency level for that particular lab.
- If the lab competency exam or competency is not met, the student will receive a grade of "Incomplete".
- Clinical competencies that are not passed require a remediation process of "re-teach"***** and passage of indicated process evaluations, and "re-test"****** and passage of the clinical competency. The re-teach / retest process can be attempted twice.
- Remediation will involve the use of ample practice sessions and process evaluations to give feedback and allow the student to succeed.

In addition to the preceding conditions, competency must be continuously demonstrated by the student as stated in the preceding performance standards.

***"Re-teach"** sessions would involve reviewing, with a clinical instructor, the particular portion(s) of the clinical or lab competency/competencies that the student failed. The student must also perform indicated process evaluation(s) at the required competency before the retest can take place.

****"Re-test"** sessions are a complete retest of that failed clinical or lab competency. The retest would take place after re-teach sessions had occurred, and indicated process evaluation(s) had been passed at the required competency. The retest **may not** take place on the same day as the re-teach session.

ATTENDANCE POLICY

A. Attendance in all labs and classes is **MANDATORY**.

B. Attendance is defined as being on time and completely prepared for each clinic, laboratory and classroom experience. Students are expected to participate fully and remain for the entire time of each session.

C. All students are expected to attend all classes, labs and clinics. These experiences will not be repeated. Missed classes, clinical and laboratory times may result in failure of courses.

D. Tardiness is considered unprofessional behavior and will not be tolerated. Tardiness will be considered an unexcused absence.

E. Failure to prepare for class, clinical and laboratory experiences or the inability to participate in patient or related activities, will result in dismissal of the student from the experience. Dismissal will be considered an unexcused absence.

When considering a request for an excused medical absence the following information shall serve as a guideline.

- **Fever** is the body's way of destroying the germs making it sick, and it's a common symptom of infections such as flu. Stay home if your temperature is 101° F or higher.
- **Diarrhea** is often the result of infection, food poisoning, or a side effect to medications like antibiotics. Stay home if you have three or more episodes of diarrhea in the last 24 hours.
- **Vomiting** is another way for the body to rid itself of the germs making it sick, and is usually caused by a stomach virus or stomach infection. Stay home if you have vomited twice or more in the last 24 hours.
- **Pinkeye (conjunctivitis)** is contagious, and you should stay home for the first 24 hours after treatment begins. Symptoms of pinkeye include eye redness, irritation, swelling, and pus.
- All other medical absences require a doctor’s note.
- Absences greater than two days require a doctor’s note.

F. Students must notify the appropriate faculty member immediately prior to an absence. Phone numbers for faculty will be provided in each course syllabus.

G. Excused absences will be granted on a case-by-case basis by the Program Director.

H. Students are expected to be on time.

I. If the student cannot make a rotation or assignment, or is unable to attend a scheduled class, the Program Director and appropriate faculty member should be notified between 7:30-8:00 a.m. A message left on the clinic line **does not** constitute contact made; please make direct contact or leave a message at the appropriate phone number, as provided on syllabi. Failure to communicate as per these instructions will result in a Critical Incident Report.

J. Medical absences require a written note from a medical provider upon return to school. All other absences require advanced communication and approval from the appropriate instructor and program director. Failure to communicate as per these instructions will result in a Critical Incident Report.

K. A record of attendance will be kept by the responsible faculty.

CRITICAL INCIDENTS

A critical incident is anything that a student does or says that demonstrates unprofessional or unethical behavior. The Clinic Manual has a policy statement devoted solely to ethical behavior, and specific examples of professional conduct are cited throughout the manual. Violation of stated rules, regulations or directives that govern ethical and professional conduct will result in a Critical Incident Report being issued to the student by the faculty member who observed the incident.

It is the intent of the faculty to facilitate an educational environment wherein each student develops professional and ethical standards that prepare them to enter the dental assisting profession.

Should a student receive two Critical Incident Reports while in the dental assisting program, she/he will be placed on academic probation. If a third Critical Incident Report is issued, the student will be dismissed from the program.

Student Concerns/Grievance Procedure

Students are encouraged to utilize a proactive and constructive approach to conflict resolution.

(1) Students are to address class issues with their classmates, instructor issues with instructors, clinic issues with clinic coordinators, and program concerns with the Program Director.

(2) Please be as specific as possible in identifying a concern. Suggested solutions are encouraged.

(3) Don’t let a concern grow into a big problem before addressing the issue with the appropriate party.

(4) If a student feels that he/she did not receive proper consideration over a concern, the informal complaint process must be followed. Refer to the MCC Student Handbook.

CRITICAL INCIDENT REPORT

Date:_____ **Student:**_____

Location of Incident:

- □ Clinic
- □ Classroom
- □ Other (specify): _____

Nature of Incident:

- □ Ethical Policy
- □ Substance Abuse Policy
- □ Rules, Regulations & Academic Policies
- □ Other (specify): _____

Description of the Incident:

*Reporting Instructor's Signature:*_____

(date)

*Student's Signature:*_____

(date)

Signature only acknowledges receipt of the report and not agreement with the content.

POLICY STATEMENT ON ETHICAL BEHAVIOR

The students, faculty and staff in the dental assisting program at Mohave Community College have the ethical obligation to subscribe to the following principles:

I. To serve all patients without discrimination.

The dental assisting student will respect the individuality, dignity, and rights of every person, regardless of race, color, creed, national origin, sexual orientation, socioeconomic, or medical/dental status.

II. To hold patient relationships in confidence.

The dental assisting student will understand that keeping patient information confidential is necessary because it helps create trust, which must exist between the patient and the assistant, and enables the patient to feel comfortable in telling the truth. To decrease trust is to cause harm. (Patient confidentiality is also required legally.)

III. To generate public confidence in members of the dental health professions.

The dental assisting student is obligated to refrain from making disparaging remarks about the services of another student, faculty member, dental assistant, or dentist in the presence of a patient. A lack of knowledge of conditions under which the services were provided may lead to unjust criticism and to a lessening of the patient's confidence in the dental health care profession.

IV. To understand the responsibility of being a student dental assistant.

Being a dental assistant or a dental assisting student <u>does</u> carry with it an enormous responsibility to individual patients and to society. Patients depend on the dental assistant's skill and caring attitude. They entrust the dental assistant with their health. The enormity of that responsibility should be at the very core of professional, ethical behavior.

STUDENT GRIEVANCES

The MCC Student Grievances procedure can be found in the student handbook. In addition, the Dental Programs has established the following internal policy for resolving academic and non-academic complaints. Students are required to first discuss their complaint with the instructor involved. If the outcome of such discussion does not satisfy the student or the instructor feels third party intervention may facilitate resolution, the Program Director will meet with one or both, individually or together. Students should strive to resolve conflicts as quickly as possible. It is expected that all parties will be respectful and demonstrate restraint and responsibility in all communication.

SUBSTANCE ABUSE POLICY

Mohave Community College prohibits the unlawful manufacture, distribution, possession, or use of controlled substances on the campus. Violators will be prosecuted and punished by the applicable court of law.

The Department of Dental Programs will adhere to MCC's Substance Abuse Policy. If a student is suspected to be under the influence of alcohol or drugs (to include alcoholic breath) while participating in any official departmental activity, they will be asked to leave, whether in class or in clinic, and disciplinary action shall be initiated. Violators of national, state or local laws will be prosecuted and punished by the applicable court of law.

MCC has posted its Drug Free Student Guidelines, in the MCC Student Handbook. Please refer to the Student Handbook for the complete policy statement.

I. DRESS CODE AND PERSONAL HYGIENE

Street clothes are acceptable and should be in good taste. Ask yourself if your attire would be acceptable as an employee in a dental office. Jeans (not ripped/torn) and conservative shorts are permissible. Examples of unprofessional attire that should not be worn in a dental setting include, but are not limited to, bandeau-style, halter or tank tops; backless sundresses; and short-shorts.

Dress and appearance should be that of a professional. Any dental programs instructor who notes that the student has not assumed this responsibility will ask him/her to make the appropriate changes. It is expected that the student's dress and appearance will always be appropriate.

A. Hair should always be clean, neat and of a natural color

B. Hands, hair and clothing must be free of all objectionable odors.

C. Make-up should be applied **conservatively** and be appropriate for daytime.

D. No perfume, cologne or scented lotions should be worn. The college encourages a scent-free environment to avoid the possibility of allergic reactions by others.

E. A dental assisting student is expected to pay meticulous attention to the details of grooming and personal hygiene. In addition to such basic points of daily bathing, use of deodorant, regular shampooing of hair and wearing freshly laundered clothing is essential.

F. Teeth must be kept clean. Professionalism includes modelling the behaviors we promote. Immediate attention should be given to any needed dental work. The appearance of your teeth is indicative of your own health values and a factor in counseling patients.

II. GENERAL RULES AND REGULATIONS

A. Each student's address, e-mail, telephone number and emergency contact information are to be reported to the department staff at the beginning of each semester. Any changes must be reported immediately.

B. Only emergency phone calls will be referred to students during class or clinic.

C. Smoking is **not** permitted **in** or **around** the Allied Health building, or at **any** location while in uniform.

D. Purses, backpacks, coats and personal items should not be left unattended in the classroom. They should be secured in your locker. All areas of the building are considered public property; therefore, lockers should be kept locked at all times to minimize theft. Student lockers, instrument storage boxes and "mail box" areas are provided for students' use.

E. Books and periodicals on the bookshelves are available for students' use. You must sign for these with department staff if you want to remove them from the Dental Programs area.

F. The **personal** use of cell phones in the classroom is not permitted. Cell phones and other electron devices may be used at the instructor's discretion to facilitate learning activities.

G. Children are not permitted to attend class. Parents have the responsibility to obtain satisfactory child care arrangements.

III. ACADEMIC POLICY

A. Any student who receives a "D" or "F" in any dental hygiene course will be dismissed from the program. The student does retain all rights of appeal and due process as guaranteed in the MCC student handbook.

B. Failure of <u>any</u> course will result in termination from the program.

C. If at any time during the school year, a student's work is not progressing satisfactorily, it is the student's responsibility to consult with the instructor or his/her academic advisor.

D. Student is responsible for meeting with instructor within 2 weeks of failing a major assessment (ie. test, research paper). Student will not be allowed to proceed to the next major assessment until said meeting has occurred.

E. Cheating is a serious offense. If a student cheats, a 'zero' will be assigned for that test or project, the student will be required to meet with the Program Director, a Critical Incident Report will be administered and the incident will become part of the institutional record. A second offense **<u>will</u>** result in dismissal from the Dental Hygiene program. A second offense could further result in dismissal from Mohave Community College. Review the MCC Student Handbook.

IV. PROFESSIONALISM

A student's responsibility for a high standard of personal conduct is of prime importance in the Dental Assisting Clinic. Proper chair side manners begin here, and the student should endeavor to develop a pleasant, professional decorum and form desirable habits that will reflect favorably on the student, the school and the profession.

A. Students are to respect directives from faculty at all times. Disagreements can follow the grievance procedure policies. **NEVER** argue with an instructor in front of a patient. Disagreements should take place in an office or other appropriate area away from the patient. The instructor has the right to dismiss the student from clinic that day if the student continues to argue or does not maintain professionalism.

B. Patients should be addressed by their last name, using the appropriate prefix. (Dr., Mr., Miss, Ms., Mrs.)

C. Faculty members will be addressed by their last name, using the appropriate prefix (Dr., Mr., Miss, Ms., Mrs.) unless the instructor notifies you otherwise.

D. Discuss ONLY subjects pertinent to clinical work in front of a patient. Remember the patient does not know that he may be your first patient or that you are doing a procedure for the first time.

E. Students should not congregate in the reception area prior to or during lab sessions.

F. If patients ask for a referral to a local dentist, give them the List of Dentists in their geographic area. It would not be appropriate to name a specific dentist.

G. If you are asked to conduct a tour through the school for a guest, such as a dental program applicant, do not enter the clinic and approach a chair where dental work of any nature is being performed. The chair side area should be kept as private as possible. Tell the guest that only authorized personnel in clinic attire are allowed to go further because the patient's welfare and privacy must be protected at all times.

H. The Allied Health Building will be open one half hour before clinic sessions. At all other class times, the building will be open in time for the scheduled classes.

I. Student professionalism needs to be practiced off campus as well as on campus. Student behavior that would reflect negatively on MCC or the dental assisting program could result in the following: a critical incident report; academic probation; dismissal from the dental assisting program

INFECTION CONTROL PROGRAM

Introduction

The Infection Control Program is an ongoing program designed to minimize cross-contamination and the spread of infection during the course of providing dental hygiene services to patients.

Exposure Control Plan

The following procedures and protocols have been written to protect students, faculty, and staff from exposure to bloodborne (and other) pathogens. These directives offer guidance in situations where there is a reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials (OPIM) such as saliva in dental hygiene procedures.

I. UNIVERSAL PRECAUTIONS

A. Purpose:

Dental personnel are exposed to a wide variety of microorganisms from patients. These microorganisms may cause infectious diseases that may result in serious health complications. Since not all infected patients can be identified routinely by health history, physical examination, or laboratory tests, each patient must be considered as potentially infectious. For these reasons, universal precautions for infection control will continue to be utilized within MCC's Dental Hygiene Clinic. The purpose of this infection control policy is to protect patients, faculty, students, and staff from acquiring and/or transmitting infectious disease.

The universal precautions for infection control outlined in this document comply with recommendations (issued to date) by the Centers for Disease Control (CDC), the American Dental Association (ADA), and the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard.

B. Responsibility:

It is the responsibility of faculty, staff, and students of the MCC Dental Programs to recognize the need for implementation of universal precautions as outlined in this policy and to comply with standard operating procedures. The faculty members responsible for supervision of clinical care of patients must ensure that proper steps are taken to protect the patients and students. Staff supervisors should ensure that their staff has been properly trained to avoid exposure.

C. Rationale:

The spread of infection in a dental healthcare delivery system requires three components: a source of infecting organisms; a susceptible host; and a means of transmission of the microorganisms. The precautions that are recommended in this document are based upon the measures required to protect against infection by Hepatitis viruses and Human Immunodeficiency Virus (HIV).

II. EMPLOYEE CLASSIFICATION

A. All employees of MCC's Dental Hygiene Clinic are classified in accordance with OSHA guidelines into Category I, II, or III, depending on their job-related risk of exposure to infectious disease. The categories are defined as follows:

Category I: Tasks that involve exposure to blood, body fluids, or tissues.

Category II: Tasks that involve no exposure to blood, body fluids, or tissues, but employment may require performing unplanned Category I tasks.

Category III: Tasks that involve no exposure to blood, body fluids, or tissues.

B. Specifically, the following positions have job-related risk of exposure to infectious disease:

- dental assisting students
- dental hygiene students
- dentists
- dental assistants
- dental hygienists
- dental equipment repair technician

III. IMMUNIZATIONS and MEDICAL HISTORY

A. Immunizations

Hepatitis vaccination is required for all students in the Dental Programs who Cannot demonstrate immunity to this infection. All faculty and occupationally exposed staff personnel are advised to have appropriate immunizations. Dental Programs students are responsible for documentation of previous MMR vaccinations.

B. Medical History

A thorough medical history must be obtained from each patient in the MCC Dental Hygiene Clinic. Faculty and student clinicians are required to review and update the history at every subsequent clinic visit. **Note:** A new medical history will be completed every two years. Updates to the medical history are to be made at every visit. Original information is **NEVER** to be changed.

IV. HAND HYGIENE (As updated by OSHA in 2013)

A. Hand Hygiene

Hand hygiene is the most important means for preventing the spread of infection. Hand hygiene is a general term used to describe routine hand-washing, antiseptic handwashing, and the use of an alcohol-based hand rub. Bar soap should never be used when handwashing as it may transmit contamination. To reduce the possibility of cross-contamination, the MCC dental hygiene clinic and dental materials lab are equipped with hands-free dispensers. Additionally, the MCC dental hygiene clinic is equipped with hands-free faucets.

B. Handwashing

Simple handwashing implies washing the hands with plain soap and water for a minimum of 15 seconds. An antiseptic handwash implies washing the hands with an antiseptic agent (i.e. chlorhexidine, iodine and iodophors, chloroxylenol, and triclosan) has been added to the soap for a minimum of 15 seconds. All surfaces of the hands and fingers must be completely covered with both simple and antiseptic handwashing. Indications for hand hygiene include the following:

- before and after treating each patient (i.e. before glove placement and after glove removal)
- after barehanded touching of inanimate objects likely to be contaminated by blood, saliva, or respiratory secretions
- before leaving the treatment operatory
- when hands are visibly soiled
- before regloving after removing gloves that have been torn, cut or punctured during treatment
- Faculty and students of the MCC Dental Programs **must** use the recommended antiseptic handwash followed by a thorough rinse, as prescribed above
- **Gloves become more porous the longer they are worn allowing hands to become contaminated. Therefore, handwashing or use of an alcohol-based handrub is mandatory between de-gloving and re-gloving.**

C. Alcohol-based Handrubs

Alcohol-based handrubs are waterless agents that are available as gels, foams or rinses. This product is applied to dry hands, which are rubbed together to cover
all surfaces with the product. It is more effective than both plain soap and antiseptic soap in reducing microbial count. Products with 60-95 percent concentrations of ethanol or isopropanol-alcohol are the most effective. Both higher and lower concentrations and amounts used will decrease effectiveness; therefore, **follow manufacturer's directions**. In addition, these products are not recommended for visibly soiled hands or hands contaminated with blood or saliva. In these cases, wash hands first with antibacterial soap and water, ensuring complete coverage of the hands and fingers, followed by a handrub with an alcohol-based product. All surfaces of the hands and fingers must be covered with the handrub and the hands must be allowed to completely dry before re-gloving.

Types of Hand Hygiene				
Method	**Agent**	**Purpose**	**Area**	**Minimum Duration**
Routine handwash	Water and plain soap	Removal of soil and microorganisms	All surfaces of the hands and fingers	15 seconds
Antiseptic handwash	Water and antimicrobial soap	Removal and destruction of microorganisms; reduction of resident flora	All surfaces of hands and fingers	15 seconds
Antiseptic handrub	Alcohol-based handrub	Removal and destruction of microorganisms and reduction of resident flora	All surfaces of the hands and fingers	Until the hands are completely dry
Surgical antisepsis	Water/anti-microbial soap **OR** water and plain soap followed by an alcohol-based surgical hand scrub product with persistent activity	Removal and destruction of microorganisms and reduction of resident flora	All surfaces of the hands and fingers and the forearms	2-6 minutes

Reference: CDC Hand Hygiene in Dental Settings

D. HAND LOTIONS:

Healthy, in-tact skin is the primary defense against infection and the transmission of potential pathogens. Therefore, lotions are recommended to reduce drying and cracking of the skin. However, lotions that contain oil-based emollients should only be used at the end of each day. Only water-based lotion products should be used on days that will require the wearing of patient treatment gloves and use of antimicrobial products.

V. BARRIER TECHNIQUES

Adhere to the following barrier techniques in all areas of the Dental Hygiene Clinic as part of the universal precautions against the transmission of infectious diseases. The routine use of Personal Protective Equipment (PPE) consisting of intact gloves, correctly worn masks, protective eyewear, and program-approved lab coats over scrubs is required.

VI. ENVIRONMENTAL SURFACES, SUCTION SYSTEM, AND WATER LINES

A. Environmental Surfaces

Contaminated by blood or saliva that cannot be disinfected easily must be wrapped in a barrier cover. Examples of such surfaces include x-ray unit heads and control boxes, and switch controls on the dental units. Change these barriers between each patient. Wear gloves to remove and discard the barriers. After proper handwashing, replace the protective barrier with clean barriers. If the covered surface has been contaminated, proper disinfection of the surfaces is necessary. Take care while disinfecting electrical controls; there is a risk of causing damage to the equipment or of electrical shock.

Disinfecting wipes are both a cleaner and disinfectant. The convenient, ready to use towelettes are saturated with to provide superior surface contact. The “Wipe-Discard-Wipe” protocol is as follows: Use one towelette to remove debris and bioburden from all surfaces. Discard the used towelette. Use a second towelette to disinfect all precleaned surfaces. Discard used towelette. Treated surfaces must appear visibly wet for a full two (2) minutes.

B. Vacuum System

Clean the vacuum system by running water through both the high speed and low speed evacuators for one minute prior to treating patients. Repeat this procedure at the end of the clinic session as well. On the last clinic day of each week, the vacuum system is cleaned with a disinfection solution. It is the responsibility of the student to check the vacuum trap in their operatory

on the last clinic day of each week. The lab assistant will clean and check the main trap on the last clinic day of each week.

C. Water Lines

Purge the water lines that supply the air/water syringe and sonic/ultrasonic handpieces by running water through these lines at full pressure for 2 minutes at the beginning and end of each clinic, and 30 seconds between patients.

This procedure should be carried out without the syringe tip and handpieces mounted.

VII. LIMITING CONTAMINATION

Limit contamination by minimizing the amount of splatter, droplets, or aerosol from patients. Provide a pre-op antimicrobial rinse to each patient, utilize high-speed evacuation, and follow ergonomic positioning strategies to control contamination.

VIII. HANDLING OF NEEDLES AND OTHER SHARPS

Handle needles and other sharp instruments carefully to prevent unintentional injuries. The clinician must use the needle cap holder mounted in the instrument cassette or cardboard shields when recapping needles. Never hold the cap with fingers while recapping the needle. Place recapped needles, used anesthetic cartridges, and other disposable sharp items in the appropriate puncture-resistant container immediately after use.

IX. CARE OF INSTRUMENTS

Sterilize metal and heat-stable instruments between each use. After appropriate preparation, place instruments in sterilizer pouches or cassettes, wrap and identify prior to sterilization.

X. DISPOSAL OF WASTE

MCC Department of Dental Hygiene follows the guidelines of the Arizona Law on Infectious Waste and Hazardous Material. All waste disposal will follow these procedures:

- Disposable Materials: Trash receptacles are lined with plastic bags. Disposable materials, such as face masks, wipes, paper towels, and surface covers used during patient treatment may be discarded in the trash receptacles. In addition, any disposable

items such as gloves, saliva ejectors, and cotton products that have come into direct contact with blood or other body fluids may be disposed of in those trash receptacles as long as they are not saturated and/or dripping with blood or other body fluids. Any items that are saturated and/or dripping with blood or other body fluids will be placed in a sterilization pouch and autoclaved, then disposed of in a trash receptacle.

XI. ACCIDENTAL EXPOSURES TO BODY SECRETIONS THAT MAY LEAD TO INFECTION

A. Accidental Exposure

All needle sticks, punctures, and mucous membrane contact with blood occurring during the course of treating patients or while cleaning instruments should be treated is potentially infectious. immediately seek first aid treatment and report the injury to the supervising instructor or clinic dentist. Before leaving the premises for follow-up care, first aid treatment should be performed by thoroughly cleaning the wound with soap and water.

NOTE: DO NOT encourage bleeding of the wound!!!

B. Post-Exposure Management

1. A confidential report of occupational exposure must be completed by the exposed student, faculty, or staff member. The “Post-Exposure Incident Management Record” form must be completed and returned to the Program Director within 24 hours of the exposure accident.

2. After immediate first aid treatment, the injured person should initiate appropriate protocols for possible hepatitis and HIV exposure. Subsequent treatment will be in accordance with the policies of the Dental Programs Department. Post-exposure evaluation and follow-up care is voluntary but students, patients and faculty are urged to comply. Refusal of post-exposure evaluation must be documented on the “Post-Exposure Incident Management Record.”

XII. ACCIDENTAL EXPOSURE TO HAZARDOUS MATERIALS

Students, faculty, and staff may be exposed to hazardous materials in the course of providing patient care, and in following infection control procedures. An example of such materials include glutaraldehyde solutions. All precautions (including appropriate barrier techniques) should be taken while handling such materials to prevent exposure. If an exposure occurs, appropriate first aid treatment should be sought and rendered immediately. To determine the appropriate measures to be taken, refer to the Safety Data Sheet (SDS) pertaining to the particular hazardous material. SDS books are found in the reception area. An "Accident or Incident Management Record" should be completed and returned to the appropriate instructor within 24 hours.

XIII. ACCIDENTAL CONTAMINATION OF THE EYE

In the event of an eye contaminant, immediately cleanse the eye at an eyewash station. Report the incident to the appropriate instructor. The instructor and student will identify the nature of the contaminant and the proper treatment. An "Accident or Incident Management Record" should be completed and returned to the appropriate instructor within 24 hours.

ACCIDENT OR INCIDENT MANAGEMENT RECORD

Student Name	**Date**
Supervising Faculty	**Time**
Classification of Occurrence □ Accident □ Percutaneous Incidence □ Emergency	
Describe the accident/incident in detail:	
Action taken:	
Student signature	**Date**
Patient signature	**Date**
Faculty signature	**Date**

POST-EXPOSURE INCIDENT MANAGEMENT RECORD

Student Name	**Date**
Supervising Faculty	**Time**
This student was involved in a possible infectious disease exposure incident.	
Exposure incident circumstances: (Describe what, how, and why the incident occurred.)	
Route and Area of exposure: (Example: Route: needlestick, splash, puncture wound, abraded skin, ingestion. Area: Tip of the left index finger.)	
Source patient name: (if known)	
Source patient significant medical history:	
Source patient blood results: (if applicable)	
MCC Dental Hygiene Department has offered to facilitate follow-up medical evaluation for me in order to assure that I have full knowledge of whether I have been exposed to or contracted an infectious disease for this incident.	

Given this information, I: **_____ Accept this offer and details of the follow-up medical evaluation are attached.** **_____ Decline this offer.**	
Student signature	**Date**
Patient signature	**Date**
Faculty signature	**Date**

XIV. INFECTION CONTROL PROCEDURES FOR PATIENT TREATMENT

A. Before Patient Treatment

(To be completed prior to seating patient.)

Following MCC protocol:

1. Sanitize and disinfect all environmental surfaces.
2. Place barriers on appropriate surfaces.
3. Purge water lines (2 minutes at start of each day, 30 seconds between patient appointments).
4. Clean the vacuum system by running water through the high and Low-speed evacuators daily for one minute.
5. Obtain sterilized instruments and other supplies from your Student instrument locker.

B. During Patient Treatment

Following MCC protocol:

1. Wash hands thoroughly.
2. Wear appropriate PPE.
3. Follow proper protocol for handwashing and gloving.

C. After Patient Treatment

Following MCC protocol:

1. Remove gloves, wash hands.
2. Dismiss patient.
3. Place nitrile utility gloves on.
4. Place instruments in cassettes, and return all contaminated instruments and supplies to the sterilization area for sterilization by lab assistant.
5. Disinfect dental unit.

XV. STANDARD OPERATING PROCEDURES (SOPs)

A. Pre-Appointment

1. Perform a 15 second handwash with antimicrobial soap and dry completely.

2. Put on eyewear, mask, and heavy duty gloves.

3. Check equipment:

   a. Run water through the air/water syringe for 2 minutes.
   b. Pick up the handpiece and run the rheostat for 30 seconds.
   c. Run water through the high and low speed evacuation for 1 minute.
   d. Turn the dental light on and off.

4. Use a disinfecting wipe on the following areas:

   a. Countertops and backsplash
   b. Silver bracket tray
   c. All items from the drawers
   d. All hoses
   e. Operator and assistant chair control levers

5. Use another disinfecting wipe on the following areas:

   a. Drawer handles
   b. Radiographic view box
   c. Dental light handles and on/off switch
   d. Light arm and head
   e. Towel dispenser
   f. Soap dispenser
   g. Wall divider, blinds and window sill
   h. Bottom of the patient chair, assistant chair and operator chair
   i. Rheostat & chair control

6. Wash the vinyl of the patient, assistant and operator chairs with light soap and water.

7. Remove, wash and spray eyewear.

8. Wash gloved hands with soap and water, spray gloves with disinfectant while still on hands, wipe and re-spray lightly. Remove gloves and place them under the counter. Wash hands.

9. Remove and discard mask using the ear loop.

10. Obtain all barriers:

    a. 2 large barriers
    b. 4 small sleeves

11. Apply barriers to:

    a. patient chair (large)
    b. bracket tray (large)
    c. high and low speed evacuators (2 small sleeves)
    d. air/water syringes (2 small sleeves)

12. Obtain sterilized instruments.

B. Post-Appointment

1. Prior to dismissing patient, ensure all instruments are in the cassette. Close and fasten the cassette to signal the lab assistant that they are ready for re-processing.

2. Proceed with patient dismissal and walk-out.

3. Upon return to the operatory, remove overgloves; remove eyewear and set aside.

4. Perform 15 second handwash with antimicrobial soap and dry completely.

5. Re-glove with mask, eye wear & utility gloves.

6. Wash loupes with antimicrobial soap and water; dry thoroughly; place in case.

7. Transport biohazard waste or sharps to the sharps collection container.

8. Remove all barriers and place in the headrest barrier (used as a collection bag).

9. Run water through the low and high volume suction for one minute.

10. Run water/air through the air/water syringe and any type of handpiece for 30 seconds. Lubricate handpieces according to manufacturer's

directions.

11. With soap and water, wipe down the patient chair, operator chair and assistant chair.

12. Use a disinfecting wipe on the following areas:

    a. Countertops
    b. High and low speed suction and receptacle
    c. Air/water syringe and receptacle
    d. Handpiece receptacle
    e. Bracket tray
    f. Light post and handles
    g. Any areas that were covered by barriers but are visibly soiled
    h. Any items that need to be placed back in the drawer.

13. Wash utility gloves with antimicrobial soap and water; dry thoroughly. Wash hands. Put away utility gloves.

14. Remove and wash eye wear with antimicrobial soap and water; dry thoroughly. Put away.

15. Using the ear loop, remove the mask and dispose.

16. If there is a clinic session immediately following, place all barriers as indicated in Pre-Appointment SOP.

XVI. INFECTION CONTROL PROCEDURES FOR DENTAL IMPRESSIONS

When taking alginate impressions on a patient, proceed as follows:

1. Using proper patient universal precaution protocol, register the patient's bite in wax.
2. Spray the wax with disinfection solution, then place in a small, sealable plastic bag.
3. Use the bagged bite registration to determine the correct size of impression tray.
4. After taking the impression, rinse the impression to remove the saliva.
5. Spray the impression with disinfection solution.
6. Wrap the impression in a moist paper towel. The impression should be wrapped for a minimum of 10 minutes to insure disinfection.
7. If the impressions are not to be poured up immediately, place them in small, sealable plastic bags.

XVII. INFECTION CONTROL PROCEDURES FOR RADIOLOGY

A. Barrier, techniques

All personnel will be expected to wear proper personal protective equipment when radiographing patients in the Dental Hygiene Clinic.

B. X-ray equipment

1. All radiographic equipment will be covered with the proper barriers. The tube head and control panel of the dental x-ray unit will be disinfected and re-covered for each patient use.

2. **Intraoral film positioning devices:** All intraoral film-holding devices will be sterilized between each patient use. After use, they should be rinsed off before being wrapped for sterilization.

C. Surfaces

Any environmental surface which was not covered during patient treatment and which may have become contaminated should be disinfected according to MCC protocol.

D. Radiograph processing

Image-receptor processing procedures should be performed in a manner that will minimize cross-contamination. Contaminated image-receptors should be placed on a disinfectant-soaked paper towel. Once all images have been exposed, the receptors should be sprayed with disinfectant. When appropriate disinfection time, as specified in manufacturer's directions, has passed, the receptors can be dried. At this point the receptors are onsidered decontaminated and should then be placed in the automatic processor with clean ungloved hands.

1. **Sensors:** Cover the sensor and any cords that may contact intraoral surfaces or contaminated hands with an FDA-cleared barrier. After image exposure is complete, remove and discard the barrier. Between patients, clean and disinfect the sensor with an EPA-registered hospital isinfectant.

2. **PSPs:** Cover the imaging plate with an FDA-cleared barrier. After the procedure is complete, remove and discard the barrier. To clean the phosphor storage plates, use a lint-free, 100% cotton gauze square to gently wipe the dry plate surface. There is no reason to routinely disinfect the PSPs unless contamination is suspected. If a PSP has touched a

contaminated surface, it may be immersed **BRIEFLY** in a cold sterilant. Do not immerse the plate(s) if there is evidence of deep scratches in the surface of the plate(s) or nicks in the edges. After disinfection, clean and dry the plate as stated above.

RULES AND REGULATIONS REGARDING IONIZING RADIATION

I. Radiographic Surveys and Practical Measurements

The indication for radiographic examination is based on the expectation of obtaining necessary information to assist in the patient's diagnosis. The dental hygienist (student) will be able to expose the necessary radiographs based on the patient's health and dental hygiene needs. Professional judgment will assist in what type of radiograph survey will benefit the patient's needs. The Mohave Community College Dental Hygiene Clinic follows the American Dental Association Guidelines for Prescribing Radiographs.

II. Dental Facilities Radiation Protection Procedures As Low As Reasonably Achievable (ALARA)

1. Always think about the radiation safety aspects of any x-ray examination, providing radiation protection to the patient, other department personnel, the public and yourself.

2. Practice sound radiation protection principles to achieve occupational doses As Low As Reasonably Achievable (ALARA). Think ALARA, think what procedure could be performed more efficiently and effectively, resulting in less radiation exposure.

3. Safety procedures include machine operating procedures and a policy on selecting a holder.

   A. Machine operating procedure:

      No student may operate any x-ray machine unless adequately instructed in basic radiation safety practices and the safe operation of the x-ray producing equipment. Training will be provided prior to operation of x-ray machine.

   B. Policy on selecting a holder and procedure to follow:

      a. Never hold the patient or the film during an exposure. Mechanical holding devices shall be used when the technique permits.

b. Never hold the x-ray tube housing or the pointer cone during an exposure. X-ray tube support assemblies are required by the regulations to be stable enough to remain positioned unattended.

4. Use a lead apron and thyroid collar on patients during x-ray procedures.

5. No x-ray machine will be operated with the aluminum filtration removed.

6. Never direct the primary radiation beam toward another patient or student. To prevent such a primary beam exposure, reposition the patient's chair and x-ray source, or use available shielding.

7. The useful radiation beam must always be entirely intercepted either by the patient, an image receptor (for extraoral), or by the structural shielding. Only the patient shall be in the useful beam.

8. Do not expose more than twenty-two films on any one patient without permission from an instructor. A maximum of four (4) retakes for a FMX and one (1) retake for BWX are permitted on each patient, and the student **MUST** request help from an instructor to continue and complete the survey.

9. Do not remove radiographs from the clinic for any reason. **ONLY** with written permission from the patient will the receptionist forward radiographs to the private dentist of the patient.

10. Always stand at least six (6) feet from the patient, or behind a protective barrier when initiating an x-ray exposure. Never stand in direct line with the beam, regardless of distance from the tube.

11. No x-ray exposure will be made without proper radiation beam limitation. For intraoral x-ray machines, no exposure will be made with the beam limiting cones removed. For extraoral (or panoramic and cephalometric) equipment, no exposure will be made unless the primary radiation beam is collimated to an area no larger than the image receptor. Ideally, collimation should be only to the clinical region of interest.

12. Review the Radiation Protection program on an annual basis. "As low as reasonably achievable" (ALARA) means making every reasonable effort to maintain exposures to radiation as far below the dose limits in the regulations as is practical, consistent with the purpose for which the licensed or registered activity is undertaken; taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations; and in relation

to utilization of nuclear energy and licensed or registered sources of radiation in the public interest.

13. Panorex film cassette and intensifying screens shall be inspected after each use. Any wear or irregularities will be brought to the attention of the clinic coordinator. In addition, the radiography instructor shall evaluate the cassette and intensifying screens prior to the start of fall semester.

14. Lead aprons shall be inspected prior to each use. Any wear or irregularities will be brought to the attention of the clinic coordinator.

III. Procedures

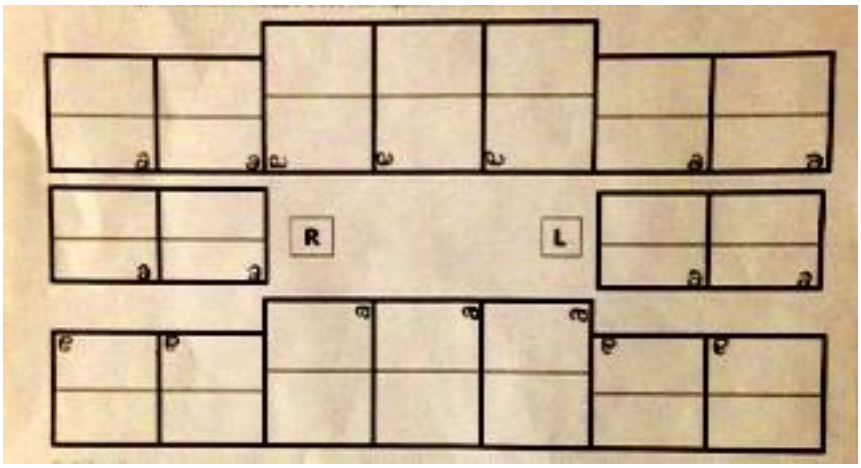
A. The student will be responsible for checking the machine setting prior to any attempted exposures. Utilize the touchpad to adjust based on patient size and type of exposure.

B. An instructor **MUST** be present in the building by student appointment before any attempt to expose radiographs.

C. The student will explain the procedure to the patient prior to exposure.

D. The student will put film in mounts and evaluate the survey before presenting it to an instructor for evaluation.

E. The orientation of the “a” on a properly exposed and mounted FMX will look like this:



F. The student must evaluate their radiographs for retakes. Exposures will only be retaken in order to assemble a diagnostic series, not to improve a clinically acceptable series. Retakes must be discussed with an instructor. No more than 4 retakes will be allowed for an FMX and 1 retake for BWX. In Clinic I, retakes will only be exposed under the direct supervision of a clinical instructor. In Clinic II, III and IV, supervision of retakes will be at the discretion of the clinical instructor.

G. ALL radiographs must be evaluated by the student prior to verbal presentation to an instructor.

H. Radiographs are **NEVER** to be taken from the clinic. Radiographs are to be kept in the patient's chart.

IV. Evaluation Procedure

All radiographs will be evaluated with the guidelines set forth in radiography class. Radiographs exposed on an actual patient (rather than DXTR) must be evaluated by a dentist. Patients will be provided with a letter referring them to their general dentist. Per MCC Clinic guidelines, patients must return the letter, signed by their general dentist, before future recare services can be provided in the MCC Clinic.

Exposure Equivalents

Effective Dose Equivalents from Dental X-Ray Techniques and Probability of Excess Fatal Cancer Risk per Million Examinations*

Technique	Dose millirems	Dose microSieverts	CA Risk per Million exams	Background equivalent
Panoramic - fast screens	1	10	0.25	½ day
Panoramic - par screens	2	20	0.5	1 day
Skull/Cephalometric images - fast screens[1]	2	20	0.5	1 day
Tomogram (8 cm X cm field)[2]	1	10	0.25	½ day
FMX (E-Rectangular Collimation)	1.5	15	0.4	1 day
FMPAs (E-Rect) & 4 Bitewings (D-Round)	3.5	35	0.9	3 days
FMX (D-Rectangular Collimation)	3.5	35	2.5	1 week
FMPAs (E-Round) & 4 Bitewings (D-Round)	5.5	55	1.75	4 days
FMX (D-Round Collimation)	10	100	2.5	1 week
Single PA or Bitewing (E-Rectangular Collimation)	0.1	1	0.025	2 hours
Single PA or Bitewing (D-Rectangular Collimation)	0.15	1.5	0.04	3 hours
Single PA or Bitewing (E-Round Collimation)	0.25	2.5	0.06	5 hours
Single PA or Bitewing (D-Round Collimation)	0.5	5	0.13	8 hours
4 Bitewings (E-Rectangular Collimation)	0.4	4	0.01	8 hours
4 Bitewings (D-Round Collimation)	2	20	0.5	1 day

Based in part on data found in:

White SC. 1992 Assessment of radiation risk from dental radiography. Dentomaxillofac. Radiol., 1992;21:118-26.

Additional extrapolations from:

1 National Council on Radiation Protection and Measurements. Exposure of the U.S. population from diagnostic medical radiation:

2 Clark DE, Danforth RA, Barnes RW, Burtch ML. Radiation absorbed from dental implant radiography: a comparison of linear tomography, CT scan, and panoramic

Compiled by: J. Ludlow DDS, MS, University of North Carolina School of Dentistry.

Guidelines for Prescribing Dental Radiographs (retrieved August 2012 from www.ada.org)

The recommendations in this chart are subject to clinical judgment and may not apply to every patient. They are to be used by dentists only after reviewing the patient's health history and completing a clinical examination. Because every precaution should be taken to minimize radiation exposure, protective thyroid collars and aprons should be worn whenever possible. This practice is strongly recommended for children, women of childbearing age and pregnant women.

TYPE OF ENCOUNTER	**PATIENT AGE AND DENTAL DEVELOPMENT STAGE**				
	Child with Primary Dentition (prior to eruption of first permanent tooth)	**Child with Transitional Dentition** (after eruption of first permanent tooth)	**Adolescent with Permanent Dentition** (prior to eruption of third molars)	**Adult, Dentate or Partially Edentulous**	**Adult, Edentulous**
New Patient* Being evaluated for dental diseases and dental development	Individualized radiographic exam consisting of selected periapical /occlusal views and/or posterior bitewings if proximal surfaces cannot be visualized or probed. Patients without evidence of disease and with open contacts may not require a radiographic exam at this time.	Individualized radiographic exam consisting of posterior bitewings with panoramic exam or posterior bitewings and selected periapical images.	Individualized radiographic exam consisting of posterior bitewings with panoramic exam or posterior bitewings and selected periapical images. A full mouth intraoral radiographic exam is preferred when the patient has clinical evidence of generalized dental disease or a history of extensive dental treatment.		Individualized radiographic exam, based on clinical signs and symptoms
Recall Patient* With clinical caries or at increased risk of caries**	Posterior bitewing exam at 6-12 month intervals if proximal surfaces cannot be examined visually or with a probe			Posterior bitewing exam a 6-18 month intervals	Not Applicable
Recall Patient* With no clinical caries and not at increased risk for caries **	Posterior bitewing exam at 12-24 month intervals if proximal surfaces cannot be examined visually or with a probe		Posterior bitewing exam at 18-36 month intervals	Posterior bitewing exam at 24-36 month intervals	Not Applicable

<table>
<tr><th rowspan="2">TYPE OF ENCOUNTER</th><th colspan="5">PATIENT AGE AND DENTAL DEVELOPMENT STAGE</th></tr>
<tr><th>Child with Primary Dentition (prior to eruption of first permanent tooth)</th><th>Child with Transitional Dentition (after eruption of first permanent tooth)</th><th>Adolescent with Permanent Dentition (prior to eruption of third molars)</th><th>Adult, Dentate or Partially Edentulous</th><th>Adult, Edentulous</th></tr>
<tr><td>Recall patient*
With periodontal disease</td><td colspan="4">Clinical judgment as to the need for and type of radiographic images for the evaluation of periodontal disease. Imaging may consist of, but is not limited to, selected bitewing and/or periapical images of areas where periodontal disease (other than nonspecific gingivitis) can be indentified clinically.</td><td>Not Applicable</td></tr>
<tr><td>Patient for monitoring of growth and development</td><td colspan="2">Clinical judgment as to the need for and type of radiographic images for evaluation and/or monitoring of dentofacial growth and development</td><td>Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring of dentofacial growth and development. Panoramic or periapical exam to assess developing third molars</td><td colspan="2">Usually not indicated</td></tr>
<tr><td>Patient with other circumstances including, but not limited to, proposed or existing implants, pathology, restorative/endodontic needs, treated periodontal disease and caries remineralization</td><td colspan="5">Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring in these circumstances.</td></tr>
</table>

*__Clinical situations for which radiographs may be indicated include but are not limited to:__

Positive Historical Findings	**Positive Clinical Signs/Symptoms**
1. Previous periodontal or endodontic treatment	1. Clinical evidence of periodontal disease
2. History of pain or trauma	2. Large or deep restorations
3. Familial history of dental anomalies	3. Deep carious lesions
4. Postoperative evaluation of healing	4. Malposed or clinically impacted teeth
5. Remineralization monitoring	5. Swelling
6. Presence of implants or evaluation for implant placement	6. Evidence of dental/facial trauma
	7. Mobility of teeth
	8. Sinus tract (“fistula”)
	9. Clinically suspected sinus pathology
	10. Growth abnormalities
	11. Oral involvement in known or suspected systemic disease
	12. Positive neurologic findings in the head and neck
	13. Evidence of foreign bodies
	14. Pain and/or dysfunction of the temporomandibular joint
	15. Facial asymmetry
	16. Abutment teeth for fixed or removable partial prosthesis
	17. Unexplained bleeding
	18. Unexplained sensitivity of teeth
	19. Unusual eruption, spacing or migration of teeth
	20. Unusual tooth morphology, calcification or color
	21. Unexplained absence of teeth
	22. Clinical erosion

__**Factors increasing risk of caries may include but are not limited to:__

High level of caries experience or demineralization	History of recurrent caries	High titers of cariogenic bacteria
Existing restoration(s) of poor quality	Poor oral hygiene	Inadequate fluoride exposure
Prolonged nursing (bottle or breast)	Frequent high sucrose content in diet	Poor family dental health
Developmental or acquired enamel defects	Developmental or acquired disability	Xerostomia
Genetic abnormality of teeth	Many multi-surface restorations	Chemo/radiation therapy
Eating disorders	Drug/alcohol abuse	Irregular dental care

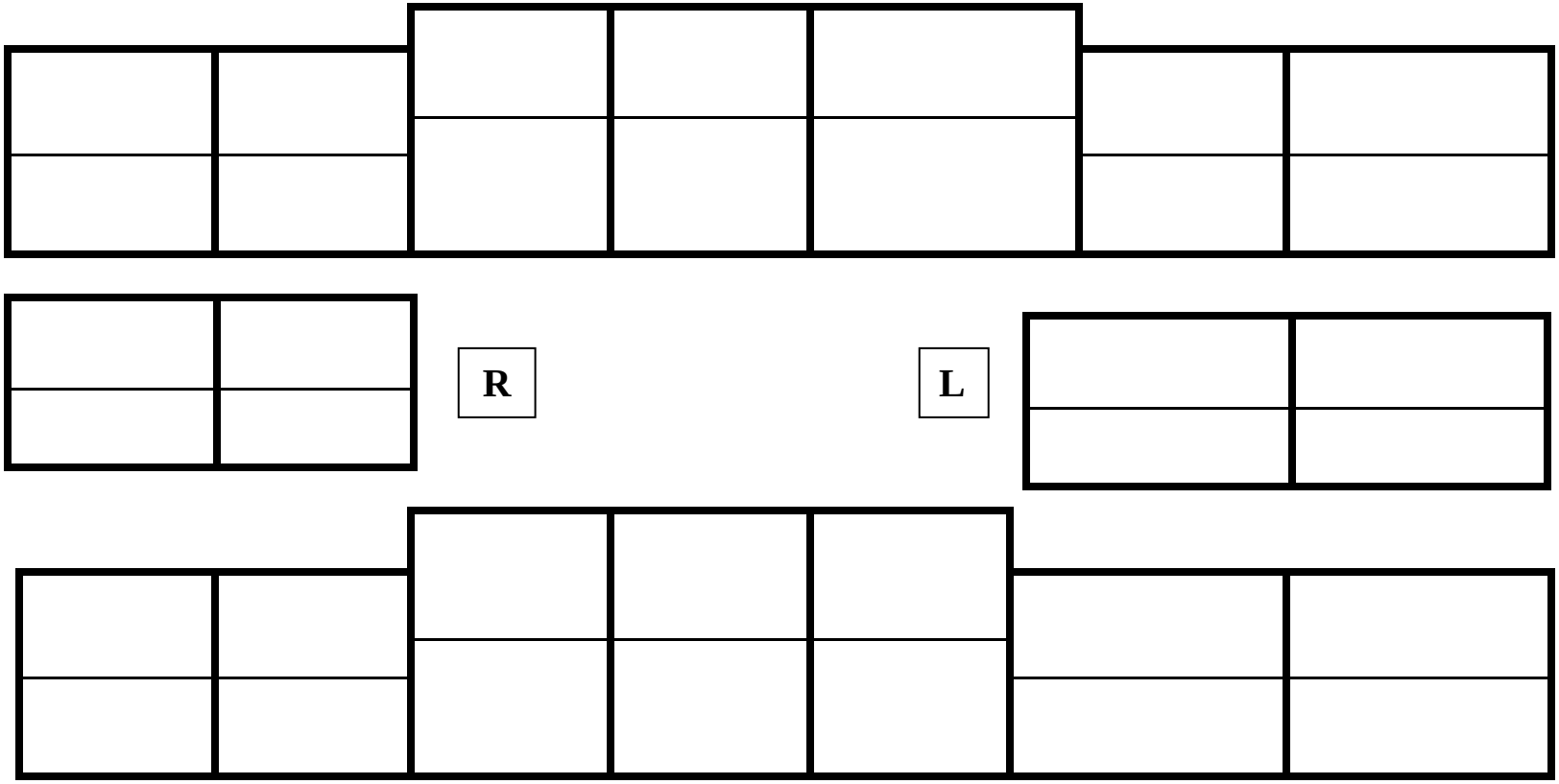
RADIOGRAPHIC EVALUATION FORM

Student	Patient	Exposure Date
Clinic I/II III IV	Patient Number	Evaluation Grade
Diagnostic FMX: 18 pts. -Diagnostic Diagnostic 4 BWX: 4 pts Diagnostic	Chairside Eval. = 0 3 5 Technique Eval. = 0 3 5	Retakes FMX: 0 1 2 3 4 Retakes 4 BWX: 0 1

Patient Exposure Factors

□ Crowded Dentition	□ Narrow Arch	□ Uncooperative
□ Short Frenum	□ Large Tori	□ Shallow Palate
□ Gagger	□ Apprehensive	□ Other (Specify)

Directions: In the appropriate boxes below indicate all errors and pathology/observations demonstrated in each film. Use the codes listed below.



Technique Errors

A. Missing apical areas (need 2mm of bone beyond apices)
AA. Apical area missing but visible in another projection
B. Horizontal angulation
BB. Overlap but visible in another projection
C. Vertical angulation

another projection
D. Film placement (specific teeth and/or bone not seen)
DD. Specific area not seen but visible in another projection
E. Cone cut
F. Image distortion
G. Film bending
H. More than ¼'' beyond cusp tips
I. Occlusal plane not centered
J. Missing incisal/occlusal plane
JJ. Missing incisal/occlusal plane but visible in
K. Processing error
L. Herringbone
M. Appropriate machine setting

Minimum passing score is 80%.

PANOGRAPHIC EVALUATION

Student	Patient	Exposure Date
Clinic I/II III IV	Patient Number	Evaluation Grade

Technique	EVALUATION	
	Student	Instructor
1. Correct patient size selected		
2. Intraoral prosthesis and metallic articles from hair and neck are removed		
3. Correct positioning of Frankfort plane; parallel to the floor Teeth arranged in a posterior smile-like upward curve with separation visible between the teeth		
4. Vertical orientation of film: Orbits of eyes to inferior border of mandible visible on film		
5. Horizontal orientation of film: Both condyles visible of film		
6. Correct mid-sagittal plane position: Patient positioned straight Maxillary borders of condyles on same plane Ramus of the mandible -- same bilateral width		
7. No artifacts present		
8. Teeth centered end-to-end in bite block		
9. Correct anterior-posterior positioning: Patient too far forward – blurred and narrower anterior teeth Patient too far back -- blurred and wider anterior teeth		
10. Correct positioning of lips and tongue: Apices of maxillary and mandibular teeth clearly visible		
11. Straight cervical spine: Anterior teeth/area clear – no white shadow superimposed over teeth and anterior mandible		

Emergency Management

MCC POLICY ON MANAGING EMERGENCIES IN THE LABORATORY

"An ounce of prevention is worth a pound of cure". It is with that old adage as a guidepost that the policy of the Dental Hygiene Program is to prevent emergencies before they happen. When participating in lab activities the following regulations apply to all students and faculty:

1. Safety glasses with side shields are to be worn at all times when you are in the lab.

2. Buttoned up lab coats are required at the instructor's discretion.

3. Long hair will be pulled to the back of the head and restrained.

4. Face masks are required when measuring or mixing plaster, using the model trimmer, or the lathe. "The Handler" lab vacuum must be used when trimming plaster casts.

5. In the event of fire or accident, be familiar with the following items:

   - fire extinguisher, hallway outside of 902 classroom
   - first aid kit
   - eyewash station in the sterilization room of the clinic and the lab
   - the MSDS book on the clinic bookshelves

6. If necessary, activate the EMS by calling 8-911 from the closest phone.

7. Bring only those materials you need to lab. Do not place books or purses on top of the counter or in the aisles.

8. Keep your work station neat and organized.

9. In the event of an accident or incident, complete the "Accident or Incident Report Management Record". This must be returned to the appropriate instructor within 24 hours.

MCC POLICY ON MANAGING EMERGENCIES IN THE CLINIC

"An ounce of prevention is worth a pound of cure". It is with that old adage as a guidepost that the policy of the Dental Hygiene Program is to prevent emergencies rather than to be surprised by them. When participating in clinic activities the following regulations apply to all students and faculty:

1. MCC protocol as per OSHA and CDC guidelines will be followed at all times.

2. In the event of fire or accident, be familiar with the following items:
   - fire extinguisher, in the hallway across from 902
   - exits:
     -one at front of clinic
     -one at rear of clinic
   - first aid kit, in the dental lab
   - medical emergency kit on the instructor counter during clinic and stored in the file cabinet
   - eyewash station, sink of the sterilization room and lab
   - the MSDS book, on the reference text shelf at the instructor counter
   - AED on clinic shelf by the entry door

3. If necessary, activate the EMS by calling 8-911 from the closest phone.

4. Bring only those materials you need to clinic. Books, book bags, or purses are not to be in clinic and should be stored in personal lockers. No food, beverages or gum chewing in the clinic.

5. Keep your treatment area neat and organized in order to make access to dental chairs as safe as possible for all.

6. In the event of an accident or incident, complete the "Accident or Incident Report Management Record". This must be returned to the appropriate instructor within 24 hours.

7. Complete the "Post-Exposure Incident Management Record" if needed.