

MIDWESTERN STATE UNIVERSITY  
ORAL RADIOLOGY II  
DENTAL HYGIENE PROGRAM  
DNHY 3102

## COURSE SYLLABUS (SPRING 2025)

COURSE: ORAL RADIOLOGY II DNHY 3002 (Lecture - 2/Lab - 1 hour = 2 Credit Hours)

DAY/TIME: Lecture: Wednesdays 3:00 - 4:00 PM  
Lab: Thursday afternoons (as assigned)

LOCATION: Lecture: Centennial Hall Room 103  
Lab: Gaines Dental Hygiene Clinic, Room #132

INSTRUCTOR: Stephanie McCann, RDH, MS, BS  
Centennial Hall, Room #128

Telephone: (940) 397-4650  
Email: [stephanie.mccann@msutexas.edu](mailto:stephanie.mccann@msutexas.edu)

OFFICE HOURS: Mondays 1:00-5:00 PM, Wednesdays 1:00-3:00 PM, or Friday 8-12 AM (by appointment)

### REQUIRED TEXTS

Dental Radiography: Principles and Techniques, 6th Ed, Iannucci & Howerton  
Wilkins' Clinical Practice of the Dental Hygienist; 13th edition by Boyd,  
Mallonee & Wyche

Supplemental Resources Available from Dental Hygiene Program

Radiographic Interpretation for the Dental Hygienist, Haring & Lind

Principles of Dental Imaging, Langland & Langlais

Oral Radiology Principles and Interpretation, 3rd Ed., Goaz & White

### SYLLABUS POLICY

This syllabus is a guide for the course and not a "contract" - and is subject to change. Syllabus changes will be communicated via written revisions with a minimum of a 48 hour notice before changes take place. Please keep this syllabus as a reference. Students are responsible for this information and any changes to the syllabus as explained above.

### COURSE DESCRIPTION

As published in the most current MSU Catalog (2023-2024)  
Hands on oral radiology; includes practical experience in both laboratory and clinical applications. Students gain experience in mounting and

interpretation of dental radiographs. Also includes discussions of infection control in radiographic procedures, quality assurance in dental radiography, intra and extraoral film placement criteria, and principles of panoramic radiography.

## **COURSE PURPOSE**

The purpose of this course is to provide the laboratory experience for students to develop competency in the intraoral technique skills necessary to produce diagnostic-quality periapical, bitewing, occlusal, and panoramic radiographs. Students will expose radiographs on child and adult manikins in lab and patients in the clinical setting. Students will gain practical experience in the processing, mounting, and preliminary interpretation of radiographs, as well as infection control procedures and quality assurance in dental radiography. Panoramic radiography and other extra oral techniques are also included.

## **COURSE OBJECTIVES**

Given lecture, discussion and slide identification, upon successful completion of this course, students should be able to:

1. Contrast and compare intraoral techniques (paralleling, bisecting and occlusal) and explain the rationale for the use of each.
2. Expose diagnostically acceptable intraoral surveys using the paralleling technique with RINN XCP instruments.
3. Demonstrate competency in following infection control procedures used during radiographic procedures.
4. Correctly mount full mouth and bitewing surveys.
5. Self-evaluate (analyze) errors in film placement, exposure, and processing and be able to correct them.
6. Demonstrate an appreciation for control of ionizing radiation exposure in the dental environment by consistently adhering to the MSU Exposure Protocol.
7. Correctly identify both normal and abnormal anatomy on dental radiographs.
8. Correctly identify and chart existing restorations, caries, condition of alveolar bone, missing/unerupted/impacted teeth and any other radiolucent or radiopaque abnormality.
9. Discuss various techniques for extraoral dental radiography and indications for their application.
10. Apply quality control techniques for film processing.
11. Ascertain the need for and then utilize alternative techniques (panoramic or occlusal films) for children, partially edentulous patients, elderly, etc.
12. Demonstrate the operation of the panoramic x-ray machine.

Learning Objectives related to textbook chapters and topics will be given for each class session.

## COURSE EVALUATION

### EXAMINATIONS:

There will be three written exams (including the final exam). Examinations will be comprehensive from the first day of class. Exams will comprise 85% of the final grade.

### OSCE EXAMINATIONS:

There will be four OSCE evaluations given over the course of the semester. These evaluations will be a practical to evaluate competencies associated with radiology such as infection control, technique, documenting radiographic findings, etc. These evaluations and grades from radiographs taken on patients in clinic (technique and findings grades) will comprise 10% of the final grade.

### MAKE-UP EXAMINATIONS

Students missing an examination due to illness will be allowed to make up the exam on the day of their return to school. No grade higher than a 90 will be given for a make-up examination. Students will be allowed to make up only one (1) exam per semester.

Water bottles, smartwatches, cell phones, hand-held calculators/computers are not allowed in the room during any examination. Possession of any of these items during an exam will be construed as academic dishonesty and will be dealt with accordingly.

### CLINIC RADIOGRAPHS:

In clinic 2, once students have passed their exams on bitewing technique, students may take radiographs on patient in clinic with faculty approval. They are required to expose and complete proper documentation on 3 patients during this semester. The competency grades on the fifth set of BWX and 3rd FMS, along with grades earned on their patient's radiographs in clinic, will comprise 5% of the final grade.

### LAB REQUIREMENTS AND GRADING:

1. Each student must complete five (5) full mouth surveys (FMX) and 5 bitewing (BWX) series on the manikin at a **technique competency level of 95 or greater**. Two grades will be given for each FMX/BWX series.

**Technique Grade:** Must be  $\geq 95$  to count toward the required five FMX surveys and BWX surveys. Point deductions (as noted on the Radiology Grade Form) will be made for each major error. A film may exhibit more than one major error.

**Findings Grade:** Consists of 3 areas (see below). Minimum passing grade = 75

#### **Critique:**

Students will critique their films and suggest corrections. One (1) point will be deducted for each error on the critique.

**Radiographic Findings:**

One (1) point deduction for each omission or misinterpretation. Normal anatomic landmarks should be documented under radiolucent or radiopaque findings when and FMX is exposed. **This form must be completed for all surveys taken on patients. Since the patient's name is on this form, it is legal documentation of our evaluation of the survey for pathology. It must be completed in ink. Once graded, students will keep in their folder and properly dispose at the end of the semester.**

**Patient Referral Form:**

Any pathology noted radiographically must be documented on the Patient Referral Form at the time the radiographs are submitted for grading.

- 2. Upon completion of four manikin BWX & FMX series at ≥95 competency level the student will then expose an unassisted BWX and FMX series on a TEST case for a grade. BWX and FMX scores will need to be ≥95 in order for the student to pass competency.
- 3. If the TEST survey meets the competency levels it will be returned to the student to prepare the written report which includes a critique, normal anatomic landmarks and radiographic findings.
- 4. After successful completion of the TEST BWX & FMS and written report students may then be assigned routine clinical radiology patients.

EXCEPTION: Specific instruction and practice exposing bitewing radiographs (BW) will be covered at the beginning of this course in order to permit students to expose BW's on clinical patients as early as possible in Clinical Practice II (DNHY 3003). Approval for taking BW's on clinical patients MUST be given by the radiology course instructor prior to exposing BW's on patients.

Clinical Practice II radiography requirements will be discussed during the course introduction and orientation.

- 1. The following situations may result in failure of the laboratory portion of this course:
  - a. Exposing a patient to x-radiation without authorization from faculty.
  - b. Exposing a patient to x-radiation without protective covering.
  - c. Losing a patient's radiographs

***DENTAL HYGIENE PROGRAM GRADING SCALE***

92-100	= A
83-91	= B
75-82	= C
65-74	= D

AN AVERAGE OF 75 IS THE MINIMUM ACCEPTABLE GRADE FOR SUCCESSFUL COMPLETION OF THIS COURSE.

## ATTENDANCE

Attendance and punctuality is expected. Lab sessions will begin promptly at the designated time and students will be expected to remain for the full two hours. Lab sessions must be attended as scheduled unless other arrangements have been made in advance with the course instructor. Students in dental hygiene lecture and laboratory courses (not dental hygiene clinical courses) are allowed only two (2) absences in each course during a semester. All absences are counted whether they are for excused and/or unexcused reasons. Any absence over the allowed number for each course will result in a 5 point grade reduction for each absence over the number allowed. The points will be taken off the final course grade. Being tardy two (2) times will be the equivalent of one absence. You will be considered tardy if you enter class after the lecture has begun. Students must be present for the entire class period to get credit for a class session. Students leaving class early will be counted as absent.

## LAB ATTIRE

Full PPE must be worn for all radiology lab sessions. Hair and jewelry must be according to MSU Dental Hygiene Clinical Protocol.

## PREGNANCY

In case of pregnancy faculty must be notified immediately. Continuation in the course will be determined on an individual basis and will require additional radiation worker protection.

## PHONE USE

Cell phone use (texting or verbal) is extremely disruptive to your fellow classmates and to the faculty teaching your course. Therefore, the use of cell phones will not be tolerated, FOR ANY REASON. If you utilize your cell phone it will be confiscated for the remainder of the scheduled day. Repeat offenders will be asked to leave the classroom and will be required to meet with the faculty and the chair of the Dental Hygiene Department. In cases of emergencies, please notify spouses, family and friends to contact you via the program secretary at 397-4764.

## RECORDING OF CLASS LECTURE

Taping of class lectures will be permitted, but ONLY with the PRIOR APPROVAL of the instructor.

## ARTIFICIAL INTELLIGENCE (AI) USAGE POLICY

- The use of generative Artificial Intelligence Tools (AI) that emulate human capabilities (EX: ChatGPT, Dall-e, Gamma, etc.) is permitted in this course for the following activities and must be disclosed (this includes all graded assignments and activities) in an explanatory appendix describing which tool was used and how (including illustrations and editing):
  - Brainstorming and refining ideas
  - Discovery of information on your topic

- Illustration of topic
- However, the use of AI tools (mentioned above) are prohibited for:
  - Discussion assignments
  - Completion of assignments
  - Making of PowerPoints

All written assignments

## DESIRE-TO-LEARN (D2L)

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

## TECHNOLOGY SUPPORT

Students are responsible for maintaining their devices and ensuring that they are in proper working order throughout the semester. This includes maintaining access to the college wireless network, access to all accounts keeping passwords up to date. Students are expected to keep their devices up-to-date in regard to patches and OS updates. Computers are available on campus in various areas of the buildings as well as the Academic Success Center. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into [D2L](#). It is the student's responsibility to make sure they have access and the ability to have online assignments are turned ON TIME.

## ACADEMIC DISHONESTY

### **Dental Hygiene Honor System:**

All Dental Hygiene courses adhere to the MSU Code of Conduct. In particular, academic dishonesty, however small, creates a breach in academic integrity. A student's participation in this course comes with the expectation that his or her work will be completed in full observance of the MSU Code of Student Conduct. A student should consult the current Student Handbook for answers to any questions about the code.

Many components of dental hygiene courses are designed to be highly interactive with students helping each other learn. Students are encouraged to take full advantage of many resources available including course resources, Internet sites, other textbooks and journals, faculty, and peers when answering objectives. This interactive collegial learning environment is conducive for life-long learning.

Cheating includes, but is not limited to, (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon

the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or completing other assignments; or (3) the acquisition of tests or other academic materials belonging to the university faculty or staff without permission.

Plagiarism includes, but is not limited to, the use of, by paraphrase or direct quotation without correct citation in the text and on the reference list, the published or unpublished works of another person. Students may NOT submit papers and assignments that they have previously submitted for this or other courses. The use of materials generated by agencies engaged in "selling" term papers is also plagiarism. Students are encouraged to review the tutorials and suggested websites for more information about plagiarism.

Academic dishonesty (cheating, plagiarism, etc.) will not be tolerated in this class. Whenever a student is unsure of whether a particular situation will be interpreted as academic dishonesty, he/she should ask the instructor for clarification. If students are guilty of academic dishonesty, a grade of zero (0) will be given for the quiz, assignment, etc. Cases may also be referred to the Dean of Students for possible dismissal from the university.

#### **PLEASE NOTE**

By enrolling in this course, the student expressly grants MSU a "limited right" in all intellectual property created by the student for the purpose of this course. The "limited right" shall include but shall not be limited to the right to reproduce the student's work product in order to verify originality and authenticity, and for educational purposes. Specifically, faculty may submit student papers and assignments to an external agency to verify originality and authenticity, and to detect for plagiarism

#### **MSU COHSHS Student Conduct Appeals Committee:**

All Midwestern State University (MSU) students may legitimately appeal a course grade if 1) the student has not be evaluated according to the same criteria as his or her classmates, or 2) an error has been made in grading and/or posting (MSU Student Handbook, p. 37.) In addition, the Office of the Dean of Students has the responsibility to enforce standards of conduct for students as outlined in the MSU Student Handbook(p. 70-80).

When enrolled in the College of Health Sciences and Human Services (COHSHS), students are often assigned to community agencies, such as health care facilities, social service agencies, or athletic environments, as part of their academic process. During these experiences, the student is expected to behave in a manner required of professionals working in this environment. COHSHS students may also be required to successfully complete a licensing/certification process following graduation.

As a result, students in these programs are often held to a different academic and/or behavioral standard than students in other MSU programs.

For example, students may not be allowed to progress in a program if they have been unsuccessful (D or F) in a certain number of courses in the major. In these circumstances, COHSHS faculty and administration, all of whom have had similar professional experience, may make decisions which negatively impact students' programmatic progress.

COHSHS students have a right to a review of decisions made by the program faculty, which prevent individuals from progressing in their program in a timely manner. However, those who participate in the review must understand the context of the professions involved. Therefore, issues concerning the professional conduct of students in the COHSHS will NOT be brought to the University Grade Committee, but to the COHSHS Student Conduct Appeals Committee. Specifically, the COHSHS Student Conduct Appeals Committee will review faculty decisions related to:  
Student conduct in a clinical experience, internship, or other work-related environment that negatively impacts the student's academic progress. This conduct may include behavior which is prohibited by licensing and/or professional standards or departmental policy.  
Student removal from a program because of a) professional conduct issues or b) failure to maintain academic standards required specifically by the program\*

SEE COHSHS WEB SITE FOR A COMPLETE COPY OF THIS POLICY

### **SMOKING/TOBACCO POLICY**

College policy strictly prohibits the use of tobacco products in any building owned or operated by MSU TEXAS Adult students may smoke only in the outside designated-smoking areas at each location.

### **SERVICES FOR STUDENTS WITH DISABILITIES**

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#)

### **CONCEALED CARRY RULES/POLICIES**

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. The new Constitutional Carry law does not change this process. Concealed carry still requires a License to Carry permit, and openly carrying handguns is not allowed on college campuses. For more information, Refer to: [Campus Carry Rules and Policies](#)



## ACTIVE SHOOTER

The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit [MSUReady - Active Shooter](#). Students are encouraged to watch the video entitled "Run. Hide. Fight." which may be electronically accessed via the University police department's webpage: ["Run. Hide. Fight."](#)

## SOCIAL MEDIA

**DO NOT** use any social media site related to Midwestern State University or the Dental Hygiene Dept. /Program to harass, threaten, insult, defame or bully another person or entity; to violate any College policy; or to engage in any unlawful act, including but not limited to gambling, identity theft or other types of fraud.

- Post or store content that is obscene, pornographic, defamatory, racist, excessively violent, harassing, threatening, bullying or otherwise objectionable or injurious.
- Post copyrighted content (such as text, video, graphics or sound files) without permission from the holder of the copyright. Remember, even information that is widely available to the public (such as text, photographs, or other material posted on the Internet) may be subject to copyright restrictions that prohibit unauthorized duplication or dissemination