

MIDWESTERN STATE UNIVERSITY
ORAL RADIOLOGY II
DENTAL HYGIENE PROGRAM
DNHY 3102

COURSE SYLLABUS (SPRING 2026)

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 Sheppard, RDH, MS, BS
Centennial Hall, Room #128

Telephone: (940) 397-4650

Email: stephanie.mccann@msutexas.edu

OFFICE HOURS: Mondays 1:00-5:00 PM, Tuesdays 1:00-5:00 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:

Four examinations (including the Final Exam) will be given for the lecture portion of this course. Scheduled examinations will be comprehensive in nature, but will focus on material presented since the previous examination. These examinations will comprise 75% of the course's final grade. Students missing an exam 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 make-up examinations. Students will be allowed to make up only one (1) exam per semester. Students may not make up the final examination.

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.

OSCE EXAMINATIONS:

Objective Structured Clinical Examinations (OSCEs) are used to assess students' ability to apply radiologic knowledge and clinical skills in simulated patient care scenarios. More information is provided in the Radiology Lab portion of this syllabus.

Missed OSCEs may not be made up (except in cases of an approved and/or documented illness or emergency, it is up to the discretion of the instructor) and will start with a grade of 90. OSCE examinations constitute 15% of the final course grade.

CLINIC RADIOGRAPHS:

In clinic 2, once students have passed their exams on bitewing and panoramic technique, students may take radiographs on patient in clinic with faculty approval. They are required to expose and complete proper documentation on 3-4 patients during this semester. The competency grades on the fifth sets of BWX and FMX series, the panoramic competency grade, and the grades earned on their patient's radiographs in clinic will comprise 5% of the final course grade.

HOMEWORK:

Throughout the semester, students will be assigned online homework modules from **www.dentalcare.com** to supplement course content in Radiology II. These assignments are designed to reinforce lecture and lab concepts, enhance critical thinking, and promote evidence-based clinical decision-making related to dental radiography.

Students are responsible for completing the assigned modules and any

accompanying assessments by the designated due dates. Students must access courses through the provided assignment number listed on the course schedule. Proof of completion must be submitted as instructed. Late or incomplete submissions may not receive credit. These assignments will constitute 5% of the overall course grade.

LECTURE & LAB ATTENDANCE POLICY:

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/lab after the lecture/lab session 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.

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.

INSTRUCTIONAL METHODOLOGY: HYBRID COURSE

This course is a hybrid course with majority of the didactic/lecture component being delivered face-to-face with access to the D2L learning management system for assignment instructions, submitting assignments, and collaboration.

Students should note that hybrid education takes effective time management and study skills. Taking a hybrid course requires you to have access to a

computer (with internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. All assignment submissions made by students in D2L are considered final submissions. It is the student's responsibility to ensure the correct and complete file is uploaded. If a student submits an incorrect document, an incomplete draft, or any unintended version, the assignment will be graded as submitted. **Students are strongly encouraged to double-check their upload before finalizing the submission.** Additionally, Apple file formats, such as .pages, .numbers, and Keynote files, will not be accepted. ALL submissions must be uploaded in Microsoft Office formats, such as .doc, .docx, and .ppt. or .xlsx or otherwise specified in assignment instructions.

Computer labs are available for student use in Centennial Hall (3rd floor), Moffett Library, Legacy, and Clark Student Center. Your computer being down is not an excuse for missing a deadline!!

Contact your instructor immediately if you have any computer trouble or technical difficulties in the course. The University cannot work directly on student computers due to liability and resource limitations; however, they can help you connect to our online services. For help, log into [D2L](#).

All course materials will require the use of Microsoft. It is the responsibility of each student to submit any required assignments in Microsoft compatible formats. To download student access to Office 365 go to: <https://products.office.com/en-us/student?ms.officeurl=getoffice365>.

Review the Student Help Aids for D2L on the MSU Distance Education Resources Page available at <https://msutexas.edu/distance/how-to-student.php> &/or <https://www.youtube.com/channel/UCLSxTdOzKAFOCZjXav1aCRQ/search?query=learner>

Assignments are due by the due date! Personal computer technical difficulties will not be considered a reason for the instructor to allow students extra time to submit assignments or discussion postings.

DESIRE-TO-LEARN

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.

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) is prohibited for:

Discussion assignments

Completion of assignments

Making of PowerPoints

All written assignments

RECORDING OF CLASS LECTURE

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

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.

Radiology II Lab

LAB ATTIRE

Students are to dressed in clinic attire for all radiology lab sessions. Hair, jewelry and shoes must be according to MSU Dental Hygiene Clinical Protocol outlined in the handbook.

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.

LAB REQUIREMENTS & GRADING

Students will be required to expose 5 BWX series and 5 FMX diagnostic series on DXTTR manikins. The first four sets of each series will be graded as Pass/Fail and students will be able to retake as many retakes as necessary in order to complete a diagnostic series. The 5th set of each series will be graded and timed for competency (using the same grading scale as clinical radiograph grading) and averaged into the clinical radiograph grade in this course.

Students will also be instructed on how to set up and expose a panoramic radiograph in test mode and then be tested on competency before being able

to expose radiographs on live patients in clinic.

1. In radiology lab, competency is based on a technique grade of ≥ 80 or greater.
2. Upon completion of four manikin BWX & FMX series at ≥ 80 competency level the student will then expose an unassisted & timed BWX and FMX series on a TEST case for a grade. BWX and FMX scores will need to be ≥ 80 and taken in a reasonable amount of time while utilizing the ALARA principle in order for the student to pass competency.
3. Once each TEST survey meets the competency levels, the student may then be assigned routine clinical radiology patients (to that level of competency).

The following situations may result in failure of the laboratory portion of this course:

- Exposing a patient to x-radiation without authorization from faculty.
- Exposing a patient to x-radiation without protective covering.
- Losing a patient's radiographs

GRADING CLINICAL RADIOGRAPHS (after competency is achieved)

** Faculty approval is required PRIOR to ANY radiographic exposure ON PATIENTS **

CLINIC 2 REQUIREMENTS:

3 sets of BWX

1 Panoramic radiograph

Radiographic Interpretation is to be completed within 48 hours of exposure or by 5PM on Thursday afternoons (if taken during Thurs AM clinic). BWX series will be given two grades and panoramic images will be given one grade that will average in the clinical radiograph portion of this course's final grade calculations. These grades will be averaged with lab competency grades to comprise 5 % of the final course grade. Explanation of grading is as follows:

Bitewing series grading:

For this course, students must expose a minimum of 3 sets of BWX on three different clinical patients. A series of 4 BWX completes 1 requirement. A series consisting of 2 BWX counts as $\frac{1}{2}$ of a set.

Two grades will be given for each BWX series exposed:

TECHNIQUE GRADE

In clinic 2, a technique grade of an ≥ 80 must be achieved in order for the series to count toward clinical requirements. Point deductions (as noted on the Radiology Grade Form) will be made for

each major error assessed on each radiograph.
A radiograph may exhibit more than one major error.

FINDINGS/LANDMARK GRADE

The minimum passing grade is ≥ 75

Consists of 4 areas:

Critique

Students will critique their radiographs and suggest corrections.

One (1) point will be deducted for each error on the critique

This will be completed for each radiograph utilizing Upscale Assessment Software (more details on Radiograph Grading Form)

Radiographic Findings/Landmarks

One (1) point will be deducted for each omission or misinterpretation.

This will be completed utilizing Upscale Assessment Software (more details on Radiograph Grading Form)

Clinical Summary

Any pathology observed must be charted in the clinical summary along with any notes concerning the pathology.

REMEMBER: This is a LEGAL document!

Patient Referral Form

Any pathology noted radiographically MUST be documented on the Patient Referral Form at the time radiographs are submitted for grading (by this time, the dentist should have also evaluated the radiographs and noted any pathology).

- The Dentist's signature must also be on the Referral Form.
- This must be completed in blue or black ink
- REMEMBER: This is LEGAL documentation!

Panoramic Grading

For this course, students will be required to expose one panoramic radiograph on a clinical patient. FACULTY (Mrs. Sheppard or Ms. McIntyre – if they are not available, try pod leader) MUST BE PRESENT WHILE EXPOSING PANO.

Panoramic images will be given a Landmark/Findings grade. Students will use the Upscale Assessment pano evaluation forms to complete their radiographic interpretation and submit for grading.

In Rad 2, the Findings/Landmark grade must be ≥ 93 to receive credit.

(See next page.)

The Pano Findings/Landmark grade consists of 3 areas:

Radiographic Findings/Landmarks

One (1) point will be deducted for each omission or misinterpretation. This will be completed utilizing Upscale Assessment Software (more details on Radiograph Grading Form)

Clinical Summary

Any pathology observed must be charted in the clinical summary along with any notes concerning the pathology.

REMEMBER: This is a LEGAL document!

Patient Referral Form

Any pathology noted radiographically MUST be documented on the Patient Referral Form at the time radiographs are submitted for grading (by this time, the dentist should have also evaluated the radiographs and noted any pathology).

- The Dentist's signature must also be on the Referral Form.
- This must be completed in blue or black ink
- REMEMBER: This is LEGAL documentation!

*This semester will be the 1st semester in utilizing the Upscale Assessment software for grading radiographs. Changes to forms/grading policies may be changed if necessary. Students will be informed of any changes.

*See Radiograph Grading Policies for further information.

OBJECTIVE STRUCTURED CLINICAL EXAMINATIONS (OSCE)

Objective Structured Clinical Examinations (OSCEs) are used to assess students' ability to apply radiologic knowledge and clinical skills in simulated patient care scenarios. OSCE stations may include infection control, radiographic technique selection and positioning, error identification, radiation safety, image interpretation, quality assurance procedures, and patient communication.

Students are expected to demonstrate accuracy, clinical judgment, patient safety, and professional behavior while adhering to all instructions and time limits. OSCEs are graded using standardized rubrics, and all work must be completed independently in accordance with the program's academic integrity and professional conduct policies.

Missed OSCEs may not be made up (except in cases of an approved and/or documented illness or emergency, it is up to the discretion of the instructor) and will start with a grade of 90. OSCE examinations constitute 10% of the final course grade.

See course schedule for dates of OSCE examinations in lab. More information on each OSCE will be provided closer to each exam.

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