

COURSE SYLLABUS (Fall 2026)

COURSE: ORAL RADIOLOGY I DNHY 3002 (Lecture - 2 Credit Hours)

DAY/TIME: Tuesday & Thursday 11:00 – 11:50 AM

LOCATION: Centennial Hall Room #103

INSTRUCTOR: Stephanie Sheppard, RDH, MS, BSDH, Assistant Professor
Centennial Hall, Room #128
Telephone: (940) 397-4650
Email: stephanie.sheppard@msutexas.edu

OFFICE HOURS: Tuesdays & Thursdays 8am-11am
Fridays 8am-12pm by appointment

Instructor Response Policy: Outside of office hours, you may contact me from 6am-6pm. Any correspondence outside these hours will be responded to during the next time frame, except in the event of an emergency. Correspondence during weekend and holiday hours will be answered as time permits.

REQUIRED TEXTS

Dental Radiography: Principles and Techniques, 6th Ed, Iannucci & Howerton

Wilkins' Clinical Practice of the Dental Hygienist; 14th edition by Boyd, Mallonee & Wyche

Supplemental Resources Available from Dental Hygiene Program

Essentials of Dental Radiography for Dental Assistants & Hygienists, 10th Ed, Thomson & Johnson

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 are 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 (2025-2026)

An in-depth introduction to dental radiography. Subject matter includes the history of dental x-rays; theoretical aspects of x-ray production, the x-ray machine; radiation protection; applications of dental x-ray film; normal radiographic anatomy; and patient education.

COURSE PURPOSE

The purpose of this course is to introduce the student to the basics of radiation physics biological effects, how radiation is used for diagnostic purposes and legal/ethical responsibilities of the dental professional regarding radiation.

Radiographic equipment, film/ film processing and digital image receptors will be discussed. Students will be able to identify basic landmarks and all structures of the teeth and alveolus on radiographs.

This course must be successfully completed in order to take Oral Radiology II, the didactic/lab course in which they will

practice the intraoral technique skills necessary to expose diagnostic radiographs.

COURSE OBJECTIVES

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

1. Discuss the progress of radiography from its discovery to the present, naming the pioneers and their contributions.
2. Identify techniques that have helped to make x-ray a safe and reliable diagnostic tool.
3. Differentiate between the various atomic and molecular structures important to radiography and the common characteristics of radiation.
4. Identify ways dental x-rays interact with matter.
5. Discuss the major components and functions of a dental x-ray machine.
6. Identify the factors involved in x-ray generation and the sequential steps that must be followed in operating the x-ray machine.
7. Identify the basic requirements of an acceptable diagnostic radiograph.
8. Differentiate between the effect of variations in milliamperage, kilovoltage, distance, and exposure time on the resulting radiograph.
9. Compare the theories of biological damage and the effect of radiation on somatic and genetic cells.
10. Identify the body cells in order of their radio sensitivity and the factors that determine radiation injuries.
11. List the sequence of events following exposure to radiation and the possible short and long term effects of irradiation, including the effects of oral radiation therapy.
12. Identify the terms used to measure radiation.
13. Differentiate between the terms used in radiation safety procedures and describe various radiation monitoring devices.
14. Identify the parts, identification marks, sizes, customary usage, and film speed of various intraoral dental x-ray films.
15. Differentiate between intraoral and extraoral films including, cassettes and the correct methods of film handling and storage.
16. Identify the sequence of steps in processing radiographs and the problem areas in quality control during processing.
17. Recognize and identify normal radiographic landmarks of the face and head and locate these landmarks on the maxilla and mandible.
18. Differentiate between the terms radiopaque and radiolucent, recognizing and describing all structures of the teeth and alveolus.
19. Identify radiopaque/radiolucent dental materials, dental caries, radiopaque/radiolucent pathology, and alveolar bone loss.
20. Identify the types of radiographic errors caused by faulty exposure & processing techniques.

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

COURSE EVALUATION

EXAMINATIONS:

Five (5) examinations will be given for this course, including the final exam. ***Each exam will be comprehensive*** from the first class session. Exams will comprise 80% of the final grade in this course.

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, 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. **

HOMework/QUIZZES:

Homework will be assigned for each chapter on D2L. Homework is due in D2L drop box by 11PM on the dates listed on the course schedule. Late homework will be degraded by 50% prior to grading. All homework and any other work submitted by the student must be in compliance with the MSU Dental Hygiene's Department AI Policy (listed below).

From time to time, short quizzes may be given to help reinforce the assigned readings or review material from previous classes. Quizzes cannot be made up if a student is absent. An unexcused absence will result in a score of zero for that quiz. If the absence is excused, the quiz average will be based on the number of quizzes completed rather than the total given. Together, homework and quiz grades will make up 20% of the final course grade.

For assignments completed through DentalCare.com, students are required to create and maintain an active account. Each assignment must be accessed and completed using the assignment number provided on the course schedule. Students are strongly encouraged to take a screenshot or photo of the final grade/completion screen after each assignment as proof of completion in the event of a technical error or issue with grade reporting. Assignments completed outside the assignment number will not be accepted.

GROUP PROJECT: DENTAL X-RAY TUBE HEAD MODEL:

Students will work in small groups to construct a three-dimensional model of the internal components of a dental x-ray tube head. The model should accurately identify and represent the major components involved in the production of x-radiation. Each group will present their model to the class and briefly explain the function of each component and its role in the production of x-rays. This project is designed to reinforce students' understanding of x-ray production through hands-on application and collaborative learning. This project will make up 5 % of the final course grade

FINAL GRADE IN THIS COURSE

5 Examinations (including final)	= 80 %
Homework/Quizzes	= 15 %
Group Project	= <u>5 %</u>
	100 % of final grade

DENTAL HYGIENE PROGRAM GRADING SCALE

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

**75 AVERAGE 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. It is your responsibility to have (or have access to) a working computer (with internet access) for this class due to the variety of teaching methods being used to meet the goals of this course. Computers are available in various buildings on campus, including the 3rd floor of Centennial Hall. The primary medium for communication and information is presented through D2L Learning Management System. Text readings; audiovisual aids to include clinical slides, PowerPoint presentations, videos, on line course and teaching models are used to support the delivery of course content.

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/UCLsxDtOzKAFOCzjXav1aCRQ/search?query=learner>

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

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/UCLsxDtOzKAFOCzjXav1aCRQ/search?query=learner>

ASSIGNMENTS ARE DUE BY THE DUE DATE, AND PERSONAL COMPUTER TECHNICAL DIFFICULTIES WILL NOT BE CONSIDERED A REASON FOR THE INSTRUCTOR TO ALLOW STUDENTS EXTRA TIME TO SUBMIT ASSIGNMENTS, OR DISCUSSION POSTINGS.

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

ATTENDANCE

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.**

INCLEMENT WEATHER

In the event of inclement weather, please check D2L for updates to class responsibilities and calendar.

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 CLASSES

Recording classes is generally prohibited without the professor's explicit permission. Such recordings, when permitted, are for personal use only and may not be uploaded to the internet or otherwise shared, transmitted, or published without the professor's prior consent. Some faculty may not permit recordings of their classes. When it is feasible and appropriate, students may record classes to accommodate disabilities under the Americans with Disabilities Act, with prior approval of Disability Support Services. Such recordings may not be uploaded to the internet or otherwise shared, transmitted, or published.

EMERGENCY AID RESOURCES FOR BASIC NEEDS

Unexpected life circumstances can affect anyone. If you are experiencing challenges meeting basic needs—such as housing, utilities, food, transportation, healthcare, technology, textbooks or other life necessities, resources may be available to help. Visit the [Student Emergency Support and Resources webpage](#) to learn more, and explore emergency support opportunities through MSU and how to access them. For additional information, please contact the Office of Student Affairs: Clark Student Center #108, (940) 397-7500, student.affairs@mstuexas.edu.

OBLIGATION TO REPORT SEX DISCRIMINATION UNDER STATE AND FEDERAL LAW

Midwestern State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. State and federal law require University employees to report sex discrimination and sexual misconduct to the University's Office of Title IX. As a faculty member, I am required to report to the Title IX Coordinator any allegations, personally observed behavior, or other direct or indirect knowledge of conduct that reasonably may constitute sex discrimination or sexual misconduct, which includes sexual assault, sexual harassment, dating violence, or stalking, involving a student or employee. After a report is made, the office of Title IX will reach out to the affected student or employee in an effort to connect such person(s) with resources and options in addressing the allegations made in the report. You are also encouraged to report any incidents to the office of Title IX. You may do so by contacting:

Laura Hetrick
Title IX Coordinator

Sunwatcher Village Clubhouse

940-397-4213

laura.hetrick@msutexas.edu

You may also file an online report 24/7 at https://cm.maxient.com/reportingform.php?MSUTexas&layout_id=6

Should you wish to visit with someone about your experience in confidence, you may contact the MSU Counseling Center at 940-397-4618. For more information on the University's policy on Title IX or sexual misconduct, please visit <https://msutexas.edu/titleix/>

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 been 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

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](#)

PREGNANT AND PARENTING STUDENTS

To support the academic success of pregnant and parenting students and students with pregnancy related conditions, the University offers reasonable modifications based on the student's particular needs. Any student who is pregnant or parenting a child up to age 18 or has conditions related to pregnancy, may contact MSU's designated Pregnancy and Parenting Liaison to discuss support available through the University.

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 has 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](#)

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.

ALCOHOL AND DRUG POLICY

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and

federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

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:

- Do not use any social media site related to Midwestern State University or the Dental Hygiene Department/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