

COURSE SYLLABUS (Fall 2025)

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 McCann, RDH, MS, BSDH, Assistant Professor
Centennial Hall, Room #128
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Email: stephanie.mccann@msutexas.edu

Instructor Response Policy: Outside of office hours, you may contact me from 6am-6pm. Any correspondence outside of 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.

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

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 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 (2024-2025)

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 techniques, faulty processing techniques, and conditions that cause film fog.

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%. 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.

FINAL GRADE IN THIS COURSE

5 Examinations (including final)	= 80 %
Homework/Quizzes	= <u>20 %</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**

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

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/UCLSxTdOzKAFOCZjXav1aCRQ/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.

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.

RECORDING OF CLASS LECTURE

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

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.

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.

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 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](#)

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