



**Course Syllabus
SEMESTER
School of Nursing and Health Professions**

Introduction Information

<i>What is it? Here is the Answer!</i>	
Course Name:	Dental Radiography
Course & Section Number:	DAS 109-XXX Lecture/Lab
Meeting Day(s) & Time(s):	Lecture: Lab:
Credits:	2
Contact Hours:	4
Instructor's Name:*	
Student Hours & Location:	
OCC Phone:	
OCC Email:**	
Additional Contact Information:	

*Please call me (name); it is my preferred name. If you have a preferred name, please let me know so that I can use it. My pronouns are she/her. Please let me know yours so that I can use them.

**Please only use your student OCC email to contact me.

Health & Safety Information:

Please note that while unlikely, there is a possibility courses might need to change the delivery method due to public health concerns. If this happens, the college will communicate any changes via email and/or other communication methods.

If you are not able to come to class because you are ill, please let me know as soon as possible. When possible, class materials will be available through Blackboard, Teams, or Zoom. I will do my best to make special arrangements for you to make up the work you missed, if practicable.

Currently, masks are permitted to be worn on campus and in the classroom but not required; however, this requirement may change depending on circumstances. If changes to the course delivery method are made, you will be informed via email and/or other communication methods as appropriate.

Classroom Admittance:

OCC classes (e.g., traditional, land-based, laboratory, hybrid, asynchronous online, synchronous online) shall only be attended by the officially registered OCC students, instructor of record, guest lecturer, or substitute. Visitors are not permitted to be in the classroom and should not be invited to attend or participate in the class. See [FERPA](#) for specifics.

Classroom Attendance:

Face-to-Face Classes: students must attend this class in person only. Instructors will not allow a different form of instructional delivery.

For any changes, students must talk with their instructor first and then their advisor.

Technology, Lab Requirements, & Files:

A laptop and access to the internet is required. **Blackboard and Respondus Lockdown Browser are required. Please make sure your computer is compatible with these products.**

Student Data Files:

Student data files links are in the Blackboard.

General Information:

Student Code of Conduct:

All students are expected to follow Owens Community College's [Student Code of Conduct](#), which includes academic honesty, encompassing plagiarism. See the [Board Policy](#) for more information.

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct:

All students, faculty, and staff are expected to follow Owens Community College's [Anti-Discrimination and Harassment Policy](#) and the College's [Title IX Policy](#)/Sexual Misconduct Procedures and Guidelines. The College strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments.

Religious Accommodations:

A student seeking accommodations for an absence permitted under Ohio's Testing Your Faith Act must provide the instructor with a **written email** notice with the specific dates for an absence and must do so not later than fourteen (14) days after the first day of instruction. **Alternative accommodations are not retroactive, and no academic penalty will be imposed for an absence under the policy***. The request for alternative accommodations will be kept confidential. Students with questions about a religious accommodation under Ohio's Testing your Faith Act may contact the College's Office of Academic Affairs: provost@owens.edu

*The policy may be found on the Owens website: [3358:11-2-63 Accommodation](#) for a Student Absence for the Observance of Religious Beliefs and Practices Policy

Document Collection:

Throughout the semester, your instructors may ask for a variety of assignments including tests and/or quizzes for student learning of general education or program assessment. Please save all your class materials until the end of the semester.

Use of AI is Permitted in this Course:

It is important to note AI tools, like chatGPT, are permitted to be used for specific assignment(s) in this course only, and thus, they should be used with caution, as directed, and with proper citation. AI is not a replacement for your own thinking and research.

What Will I Learn in This Course?

Catalog Description:

This course emphasizes the importance of radiology in dentistry. The importance of understanding radiation safety for the student and the patient. The student will learn about the x-ray unit, the darkroom/processing, the film, digital imaging, dental film holders and bisecting angle techniques of taking a radiograph.

http://catalog.owens.edu/preview_program.php?catoid=17&poid=5307

Course Materials:

The course books are the same for all of the DAS courses

1. Robinson, D. *Modern Dental Assisting*, 14th Edition. St. Louis, MO: Elsevier, 2023.
ISBN13: 9780443123610.
2. Boyd, L. *Dental Instruments: A Pocket Guide*, 8th Edition. St. Louis, MO: Elsevier, 2023. ISBN13: 9780323873901.
3. Dofka, C. *Dental Terminology*, 4th Edition. New York, NY: Delmar, 2022. ISBN-13: 978-0357456828.
4. Eakle, W. S., Bastin, K. *Dental Materials Clinical Applications for Dental Assistants and Dental Hygienists*, 4th Edition. Philadelphia, PA: Saunders, 2020. ISBN-13: 978-0323596589.
5. Owens Community College Dental Hygiene Program Procedure and Safety Manual.

Print book, or e-book, with an access code is required for class, you can access the Owens Community College e-Campus Bookstore by accessing the online link, called "Find Books" on the course schedule for each course section. See the example below.

<https://owens.ecampus.com/course-list.asp?autocourselist=1&c=|5408271&s=145589&missing=>

OER and Owens Community College Library Resources (*Open Educational Resources are free online materials for instructor and student use. Some OER material may be available in print in the Owens Community College Library.*)

<https://www.dentalcare.com/en-us/student-resources>

Course Objectives:

This course will:

1. Introduce and describe radiation physics and the generation of x-rays and the biological effects of radiation and how it relates to radiation safety and protection.
2. Introduce dental imaging techniques and an overview of radiographic image scanning and manual/automatic film processing and film/image mounting.

3. Introduce and discuss professional conduct and decision making through a review of legal issues, interpretation of images and the regulations and requirements for dental assistant radiographers in the State of Ohio.
4. Introduce and discuss the alterations of treatment for patients with special needs.

Student Learning Outcomes:

Students will be able to:

1. Demonstrate an understanding of the biological effects of radiation and how it relates to radiation safety and protection.
2. Explain how x-radiation is produced and how it interacts with matter.
3. Demonstrate and understand the techniques for exposing dental radiographic images.
4. Demonstrate and understand image scanning and manual/automatic film processing and organize intraoral dental images in anatomic order.
5. Identify accepted standard of care and professional conduct in decision making when exposing radiographic images.
6. Identify the alterations to treatment when working with a special need's population.

What Will Our Classroom Environment Be Like?

Respectful Class Communication:

Respectful communication: Our classroom is a safe space. Faculty and students show respect for each other in class, discussion boards and all communication.

Asking for help/clarification: Students are encouraged to contact your instructor as soon as you have questions or need clarification. Your instructor will be help you or connect you with someone who can.

Diversity Statement:

Students in this class are encouraged to speak up and participate during class meetings and discussion boards. Because the class will represent a diversity of individual beliefs, backgrounds and experiences, every member of this class will show respect for every other member of this class.

How Will Your Grade Be Determined and What Are the Major Assignments for the Semester?

Evaluation Measure The grade points for the areas of work are as follows.	Outcomes Assessed
Test 1	1-3
Test 2	4-6
Final Exam	1-6

Skill Evaluations (11)

Skill Evaluation 1: Radiation Safety	SLO #1 and #2
Skill Evaluation 2: Intraoral Technique	SLO #1
Skill Evaluation 3: XCP Assembly	SLO #1
Skill Evaluation 4 and 5: Anterior/Posterior Technique	SLO #1
Skill Evaluation 6 and 7: Bitewing Technique (XCP and Tabs)	SLO #2-4
Skill Evaluation 8: Panoramic	SLO #2
Skill Evaluation 9: Image Organization	SLO #2
Skill Evaluation 10: XRay2Go Operating the Unit	SLO #2
Skill Evaluation 11: XRay2Go Taking a PA and BW	SLO #1 and #5

Weighted Grade Scheme:

The final course grade is to be computed using the following weights:

Evaluation Measure	Value	Outcome Assessed
Homework:	10%	1-6
Quizzes (11):	20%	1-6
Tests (2):	25%	1-6
Final Exam:	20%	1-6
Skill Evaluations (11):	10%	1-6
Live Patient:	5%	1-6
Daily Grade:	10%	1-6

Grading Procedure:

Grades will be calculated on the following scale:

Grade	Points
A	90-100
B	80-89
C	70-79
D	60-69
F	59 or below

Homework (10% of the course grade):

Homework will be completed through lecture review assignments. Assignments will be due prior to the following class. Homework must be turned into the Blackboard shell prior to lecture time. Homework assignments may vary.

Any late assignments will result in a zero grade. All assignments are required and must be submitted on time to pass DAS 109 regardless of the grade earned.

Quizzes (11 Total / 20% of the course grade):

Quizzes will be due prior to the following class. Quizzes will be completed through Blackboard and have a specific time frame for completion. It is the student's responsibility to work within this time frame or contact the instructor with any problems encountered with Blackboard within this time frame. Quiz questions are composed of multiple choices, true or false, and matching questions. Respondus Lockdown Browser is required for quizzes. **Students who are absent, late to class, or do not complete a quiz within Blackboard time frame will not be allowed to take the quiz and will receive a grade of zero.**

Tests (2 total / 25% of the course grade):

Tests will be completed through Blackboard and have a specific time frame for completion. It is the student's responsibility to work within this time frame or contact the instructor with any problems encountered with Blackboard within this time frame. Test questions are composed of multiple choices, true or false, and matching questions. Respondus Lockdown Browser is required for tests. **Students who are absent, late to class, or do not complete a quiz within Blackboard time frame will not be allowed to take the quiz and will receive a grade of zero.**

Final Exam (20% of the course grade):

The final exam will be comprehensive and will be completed in-person, during the assigned time of Final Exam Week.

Skill Evaluations (11 total / 10% of the course grade):

Skill evaluations will be completed during in-person labs. In the event a student is absent the day of a skill evaluation, it is the student's responsibility to make any necessary arrangements to make it up. Failure to do so will result in a grade of zero.

Skill Evaluations will be provided in the Blackboard shell on the first day of class. A skill evaluation is used to determine the student's level of skill in a particulate procedure or

technique. Students are required to attend all lab sessions, as this is the time devoted to practicing the skills required for practicing in a dental office. Skill Evaluations are graded according to the criteria printed on each evaluation.

Skill Evaluations may be taken a maximum of three (3) times in order to achieve a passing grade. Skill Evaluation(s) not passed by the due date will result in a zero for the skill. Please use practice sessions with the lab instructors prior to retaking any skill evaluation. Students are responsible for arranging students supervised practice sessions with the course instructor prior to retaking any skill evaluation. **All Skill Evaluations must be completed by the last day of class.**

Live Patient (5% of the course grade): Students are required to bring in one adult patient to take a full series of radiographs. The patient **must not** have a current (within 5 years) full series of radiographs on file at any dental office. Radiographs for this lab are free to the patient and can be sent to an office of the patient's choosing. Radiographs on live patients will be taken during finals week and the week prior, during lab time.

Daily Grade (10% of the course grade): The daily grade consists of professional attire, respect and character, preparedness, time management, quality of work, teamwork, infection control, and overall impression in every in-person class/lab session. If an Unexcused Absence arises, a Daily Grade of 0% will be given for that session. If an Excused Absence arises a Daily Grade of Exempt will be given for that session. Classes may utilize the use of student partners, one as the clinician and one as the patient. All students are required to sit as a patient as the task requires.

Student & Instructor Responsibilities

Instructor Responsibilities:

- We will treat you and your classmates with dignity and respect.
- We will be flexible to support your individual needs.
- We will provide resources and support for you to be successful.
- We will make ourselves available through multiple communication channels.

Student Responsibilities:

- You will treat us and your peers with dignity and respect, too.
- You will schedule time to complete the work.
- You will tell us what would help you most to overcome barriers.
- You will let us know when life gets in the way or if something is not clear.

Attendance:

1. Attendance for all class/lab is required for success.

2. It is important that you attend every class session. Otherwise, you will miss out on the many learning activities that we will engage in.
3. Any absence or tardiness should be reported to the course instructor.

Absence:

1. Owens realizes that circumstances beyond one's control may cause late arrival, early departure, or an absence (serious illness or accident for example).
2. In the event of an unforeseen circumstance, it is the student's responsibility to contact the course instructor immediately and appropriate documentation must be provided to the course instructor within 72 hours of the student's return in order to be eligible for an Excused Absence.
3. In the event of an unforeseen circumstance with documentation, late work is eligible for credit.
4. A planned absence may be requested for certain circumstances. If requested and granted, arrangements for a makeup test or exam must be made with the course director prior to the exam date.
5. An Unexcused Absence for three (3) class sessions may result in the lowering of the final grade by one letter grade. If you have an issue of not being able to attend class on time and/or staying for the entire session, please meet with me to develop a plan so you are able to complete the class materials and lab assignments.

How Does the College Support Us?

Students please use this [Academic Support Services - Owens Community College](#) for a listing of support resources such as **Campus Resources, Campus Life, Getting Around Campus, and Security.**

[Academic Success Centers - Owens Community College](#)

Tentative Class Assignments

This will give you a guide as to what we will cover in this course and when.

Week	Date	Lecture	Lab	Assignments
1	DATE	Course Syllabus Chapter 38 – Foundations of Dental Radiography, Radiographic Equipment, and Radiation Safety • History of Radiography, pg. 523-525 • Radiation Safety, pg. 537-540 • Radiographic Equipment, pg. 527-531	Radiology • Tour of radiology • Professionalism, attire • Assign a fake patient • Radiation safety manual • HIPPA documentation • Labeling of equipment • Practice the Radiation Safety Skill Evaluation	Homework and Quiz due 1/26 at 5:30pm
2	DATE	TBD		
3	DATE	Chapter 41 – Intraoral Imaging • The Full-Mouth Radiographic Survey, pg. 585 • Paralleling Technique, pg. 587-592 Chapter 39- Digital Imaging, Dental Film, and Processing Radiographs • Digital Imaging, pg. 543-547	Radiology • Radiation Safety Skill Evaluation • Set up XCP for an anterior exposure • Identify the five steps of intraoral radiography • Expose and process one anterior image Clinic • Observe images presented: identify different types of images, teeth identification, etc.	Homework and Quiz due DATE at TIME
4	DATE	Chapter 38 – Foundations of Dental Radiography,	Radiology • Intraoral Technique Skill Evaluation	Homework and Quiz due DATE at TIME

		Radiographic Equipment, and Radiation Safety • X-ray Production, pg. 531-532 • Types of Radiation, pg. 532- • Characteristics of X-Ray Beam, pg. 532-535	• Expose anterior images utilizing the intraoral technique Clinic • Practice XCP assembly • Draw and number each tooth as it appears on the placement template	
5	DATE	Chapter 38 – Foundations of Dental Radiography, Radiographic Equipment, and Radiation Safety • Radiation Effects, pg. 535-536 • Radiation Measurement, pg. 536-537 Chapter 41 - Intraoral Imaging • Mounting Radiographs, pg. 594-595	All Together • PowerPoint on maxillary and mandibular landmarks • Identify landmarks from images Radiology • Anterior and Posterior XCP Assembly Skill Evaluation • Expose anterior and posterior images Clinic • Practice mounting	Homework due DATE at TIME Test 1 due DATE at TIME
6	DATE	Identification of Dental Materials Chapter 41 – Intraoral Imaging • Bitewing Technique, pg. 592-594, 620-621	Radiology • Anterior/Posterior Paralleling Technique Skill Evaluation • Introduce Bitewing Technique • Introduce other bitewing techniques: vertical, tabs, Snap-A-Ray Clinic • Practice mounting • Practice identifying landmarks • Practice identifying dental materials	Homework and Quiz due DATE at TIME

7	DATE	Chapter 39- Digital Imaging, Dental Film, and Processing Radiographs • Film and Film Processing- pg. 548-560	Radiology • Exposure of bitewing images (horizontal, vertical, tabs, Snap-A-Ray) Clinic • Practice mounting • Practice identifying landmarks • Practice identifying dental materials	Homework and Quiz due DATE at TIME
8	DATE	Chapter 41- Intraoral Imaging • Dental Imaging and Technique Errors- pg. 598-599	Radiology • Exposure of bitewing images (horizontal, vertical, tabs, Snap-A-Ray) Clinic • Practice mounting • Practice identifying landmarks • Practice identifying dental materials • Practice identifying imaging/technique errors	Homework and Quiz due DATE at TIME
	DATE	Spring break		
9	DATE	Chapter 41 – Intraoral Imaging • Bisecting Technique, pg. 589-592 • Occlusal Technique, pg. 594 • Patients with Special Medical/Dental Needs, pg. 598-602	Radiology • Introduce the bisecting and occlusal technique • Introduce pedodontic imaging • Exposure of bitewing images (horizontal, vertical, tabs, Snap-A-Ray) Clinic • Practice mounting • Practice identifying landmarks • Practice identifying dental materials • Practice identifying imaging/technique errors	Homework due DATE at TIME Test 2 due DATE at TIME
10	DATE	Chapter 40 – Legal Issues, Quality Assurance, and Infection Control • Legal Considerations, pg. 566-568	Radiology • Bitewing Technique XCP and Tab Skill Evaluation • Exposure of images utilizing the bisecting technique • Exposure of occlusal images	Homework and Quiz due DATE at TIME

			- Exposure of pedodontic images Clinic - Practice mounting - Practice identifying landmarks - Practice identifying dental materials - Practice identifying imaging/technique errors	
11	DATE	Chapter 40 – Legal Issues, Quality Assurance, and Infection Control Quality Assurance, pg. 568-571	Radiology - Introduce panoramic imaging - Exposure of images utilizing the digital sensor - Practice placement on student partners Clinic - Practice mounting - Practice identifying landmarks - Practice identifying dental materials - Practice identifying imaging/technique errors	Homework and Quiz due DATE at TIME
12	DATE	Chapter 42 – Extraoral Imaging Panoramic Imaging, pg. 626-629 Specialized Extraoral Imaging, pg. 632-635 3-D Imaging, pg. 635-640	Radiology - Practice panoramic imaging - Exposure of images utilizing the digital sensor - Practice placement on different student partners Clinic - Practice mounting - Practice identifying landmarks - Practice identifying dental materials - Practice identifying imaging/technique errors	Homework and Quiz due DATE at TIME
13	DATE	Chapter 42 – Extraoral Imaging Panoramic Errors, pg. 629-632 Normal Anatomy for Panoramic Imaging	Radiology Panoramic Skill Evaluation - Introduce XRay2Go - Practice taking images with XRay2Go Clinic Image Organizing Skill Evaluation Must Be Completed	Homework and 2 Quizzes due DATE at TIME

			• Practice identifying landmarks • Practice identifying dental materials • Practice identifying imaging/technique errors • Practice identifying panoramic errors	
14	DATE	Chapter 40 – Legal Issues, Quality Assurance, and Infection Control Quality • Infection Control, pg. 571-576	Radiology • XRay2Go Skill Evaluations (Operating the Unit and Taking a PA and BW) • Practice setting up/tearing down radiology rooms • Practice radiology sterilization • Practice exposing any additional images • Skill evaluation make-ups	Homework due DATE at TIME
15	DATE	Review for Final Exam	Live patients begin at TIME Live Patient Day • Attendance is required for all students; if you are not taking images, you are assisting	
16	DATE	In-Person Final Exam	Live patients begin at TIME Live Patient Day • Attendance is required for all students; if you are not taking images, you are assisting	

Disclaimer: "The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course."