



ST. PETERSBURG COLLEGE  
SCHOOL OF DENTAL HYGIENE  
DES 1200L – Dental Radiography Laboratory

INSTRUCTORS: Johnson, Krueger, Marcil, Poirier

Phone: (727) 341-3668, Office: Health Education Center

Lead Instructor: Marcil, (727)-341-3486, HC 181 Email: DES 1200L in D2L

Academic Department: School of Dental Hygiene, College of Health Sciences,  
St. Petersburg College; Program Director: Joan Tonner, Health Education  
Center (HEC), 341-3671

Course Number and Section: DES 1200L, 227/228/229/230/231/232/2206

Term/Year: Fall 2014-2015 (490)

Course: Dental Radiography Laboratory

**COURSE DESCRIPTION:** In this laboratory course, emphasis is placed on competency in exposing diagnostically acceptable dental radiographs. Laboratory sessions provide experience in the use of x-ray machines, various exposure projections and techniques, processing, mounting, interpreting and critiquing dental radiographs. 45 contact hours.

CREDIT: 1 hour

COURSE LOCATION: HEC 117 and dental hygiene radiography rooms

COURSE DAY and TIME: Mon: 1:00-4:00PM, Mon: 4:30-7:30PM,

Tues: 4:30-7:30PM, Wed: 1:00-4:00 PM.

**ATTENDANCE POLICY: Please see School of Dental Hygiene polices in the SPC Dental Hygiene Program Manual: General Polices.**

It is the student's responsibility to notify the instructor of ANY absence.

If an absence or tardy is anticipated:

- Contact Mrs. Marcil by phone at 727-341-3486 or email
- Please notify the instructor at least 15 minutes prior to the start of class either by phone or through the D2L course email.

The last day to drop, receive refund, and/or change to audit for regular classes: **August 22, 2014**

The last day to drop with a "W" grade for regular classes is **October 23, 2014**

Instructors **cannot** withdraw students. Instructors will continue to closely monitor student attendance and discuss any near violations or violations of attendance policies.

Students have the ability to withdraw themselves from a course online through MYSPC or on campus during the voluntary withdrawal period.

If students enroll in a course and do not intend to stay in the course, it is the student's responsibility to drop the course before the end of the drop/add period to avoid academic and financial penalty.

\* Financial aid recipients: If you withdraw from classes anytime after funds have been disbursed, you may be required to repay federal financial aid funds.

**SPECIAL ACCOMODATIONS:** If you wish to request accommodations as a student with a **documented** disability, please make an appointment with the Learning Specialist on campus. If you have a documented hearing loss, please contact the Program for the Deaf/Hard of Hearing at 791-2628. If you will need assistance during an emergency classroom evacuation, please contact your campus learning specialist immediately about arrangements for your safety. The Office of Services for Students with Disabilities can be reached at 791-2628 or 791-2710 (CL), 341-4758 (SP/G), 394-6108 (SE) 712-5789 (TS) or 341-4532 (AC).

COURSE GOALS: (75% accuracy must be attained for all major learning outcomes)

LEARNING OUTCOMES AND OBJECTIVES:

**1. The student will expose diagnostically acceptable full-mouth periapical images using the paralleling technique by:**

- a. positioning the patient correctly for the paralleling intra-oral radiographic technique.
- b. using appropriate image receptor instruments, the RINN XCP positioning system or the DEXIS sensor holder system, for the paralleling technique
- c. preparing the dental x-rays units for the proper exposure values including the time, mA, and kVp.
- d. placing the intraoral dental x-ray film or digital sensor to complete a full mouth series of images.
- e. aligning the x-ray tube head and PID (position indicating device) in the proper horizontal and vertical plane to expose an image using the paralleling technique with the appropriate image receptor holder.

**2. The student will expose diagnostically acceptable horizontal and vertical bitewing images by:**

- a. preparing the dental x-ray unit for the proper exposure values including the time, mA, and kVp.
- b. positioning the patient's head with the occlusal plane parallel to the floor.
- c. placing an intraoral bitewing film using a tab or an appropriate bitewing image receptor holder for use with film or the DEXIS digital sensor for a premolar and/or molar horizontal or vertical image.
- d. aligning the x-ray tube head and PID in the proper horizontal and vertical plane to expose a premolar and a molar

horizontal or vertical bitewing.

**3. The student will expose and/or place specialized projection images including occlusal, distal-oblique and panoramic images by:**

- a. positioning the patient for occlusal projection of the mandible and the maxilla.
- b. positioning a film or digital sensor for a mandibular and maxillary occlusal projection.
- c. aligning the x-ray tube head and PID in the proper horizontal and vertical plane to expose a maxillary or mandibular occlusal image.
- d. positioning a film or digital sensor for a distal-oblique image.
- e. aligning the x-ray tube head and PID in the proper horizontal and vertical plane for a distal-oblique projection.
- f. preparing the panoramic dental x-ray unit for patient exposure.
- g. preparing and positioning the patient properly for exposure.

**4. The student will demonstrate proper infection control protocol to protect the patient, operator and dental x-ray unit by:**

- a. disinfecting and applying plastic barriers to all components of the dental x-ray operator that cannot be removed for sterilization.
- b. utilizing disposable or sterilizable items wherever practical.
- c. wearing appropriate PPE (personal protective equipment).

**5. The student will interpret and analyze full-mouth, bitewing, occlusal and panoramic images by:**

- a. identifying normal radiographic anatomy and appearances of dental structures.
- b. identifying abnormal appearances or findings of dental structures.
- c. critiquing each dental image in terms of film image receptor placement and position.
- d. critiquing each dental image in terms of cone placement and position.
- e. critiquing each dental image in terms of adequate or inadequate darkroom and processing technique.

**6. The student will perform proper darkroom technique in the processing of dental radiographs by:**

- a. operating all automatic processing machines in the darkroom.
- b. processing films correctly by following the guidelines of use for the automatic processing equipment.
- c. observing at all times proper darkroom technique including the following:
  1. Following infection control protocol.
  2. Utilizing appropriate lighting control with white and safe lighting.
  3. properly identifying patient images.
  4. following the standards for safe handling of hazardous radiographic materials and/or solutions.

**7. The student will maintain a quality assurance process to assure diagnostic images by:**

- a. ensuring that the automatic processing equipment is working properly.
- b. properly handling exposed images
- c. following darkroom and processing protocols

**COMPETENCIES:**

1. Apply ethical reasoning to patient care and comply with state and federal laws governing the practice of dentistry and dental hygiene.
3. Provide comprehensive dental hygiene care by applying basic and advanced principles of dental hygiene.

**PREREQUISITES:** DES 1020, DES 1020L, DEH 1000 with grades of “C” or better. Co-requisite: DES 1200.

**GRADING:** The final grade will be computed as follows:

|  |     |
|--|-----|
| Radiographic exposures DXXTR(all).....             | 25% |
| Radiographic exposure patient(1)FMX & (1)Pan...    | 10% |
| Lab activities (all) .....                         | 10% |
| Midterm exam.....                                  | 20% |
| Final exam.....                                    | 25% |
| Patient radiographic interpretation FMX & Pan..... | 10% |

**Grade scale:**

A = 93-100

B = 84-92

C = 75-83

D = 74-66

F= below 65

**ACADEMIC HONESTY:** St. Petersburg College has an Academic Honesty policy. It is your responsibility to be familiar with the policies, rules, and the consequences of violations. Read about the policy at: <http://www.spcollege.edu/webcentral/admit/honesty.htm>. There is no tolerance for cheating and academic dishonesty. Discipline can range from a zero on that specific assignment to expulsion from the class with a grade of F. Note that copy/pasting published information, whether it's from your textbook or the Internet, without citing your source is plagiarism and violates this policy. Even if you change the words slightly, the ideas are someone else's, so you still have to cite your sources. Cheating, plagiarism, bribery, misrepresentation, conspiracy and fabrication are defined in Rule [6Hx23-4.461](#), Student Affairs: Academic Honesty Guidelines, Classroom Behavior.

## REQUIRED TEXTS AND MATERIALS:

- Course material located on D2L.
- [www.myhealthprofessionskit.com](http://www.myhealthprofessionskit.com)
- <http://thepoint.lww.com/Wilkins11e>
- Johnson & Thompson. Essentials of dental radiography, 9th ed. ISBN:9780138019396
- Thompson. Exercises in Oral Radiography. 3<sup>rd</sup>. ed. ISBN:9780138019440
- Iannucci & Haring (1993). Radiographic interpretation for the dental hygienist. ISBN: 9780721637044
- Nield-Gehrig, J. (2013). Patient Assessment Tutorials. A Step-by-Step Guide for the Dental Hygienist. 3rd. ed. ISBN: 9781451131482
- Wilkins, E. (2013). Clinical practice of the dental hygienist. 10ed. ISBN: 9781608317189

## EMERGENCY PREPAREDNESS

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations. This syllabus is currently available in D2L for your convenience. Log in to D2L to confirm that you have access, reporting any difficulty to the SPC Student Technical Call Center at 341-4357 or via email at [Onlinehelp@spcollege.edu](mailto:Onlinehelp@spcollege.edu)

## CAMPUS SAFETY AND SECURITY

For information on campus safety and security policies please contact: 727-341-3654  
For information on registered sexual offenders on SPC campuses please contact campus security or the Associate Provost's office. For general information please go to the state of Florida's website at <http://www3.fdle.state.fl.us/sopu/index.asp>

## RESOURCES

**Technical Support Desk:** <http://www.spcollege.edu/helpdesk/>  
**Health Education Center Library:** <http://www.spcollege.edu/libraries/#tab=6>  
**Student Support resources:** <http://www.spcollege.edu/pages/dynamic.aspx?id=2147484119>

## STUDENTS RIGHTS & RESPONSIBILITIES:

[http://www.spcollege.edu/webcentral/catalog/Current/student\\_rights.htm](http://www.spcollege.edu/webcentral/catalog/Current/student_rights.htm)

All electronic devices including computers, cell phones, beepers, pagers, and related devices are to be silenced and/or turned off unless they are required for academic purposes. Any use of these devices (including texting) for non-academic purposes is a violation of College Policy and subject to disciplinary action.

Students may be required to have discussions of class assignments and share papers and other class materials with instructors and classmates via chat rooms and other mechanisms. Due to the potential piracy of students' materials, the College is not responsible for student work posted on the Internet (outside of the college's Learning Management System, currently D2L).

Each student's behavior in the classroom or online is expected to contribute to a positive learning/teaching environment, respecting the rights of others and their opportunity to learn. No student has the right to interfere with the teaching/learning process, including the posting of inappropriate materials on chatroom or Web page sites.

The instructor has the authority to ask a disruptive student to leave a classroom or lab. The instructor may also delete posts or materials from an online or blended class and/or take disciplinary action if disruptive behavior continues.

**ST. PETERSBURG COLLEGE SYLLABUS ADDENDUM LINK:**

<http://www.spcollege.edu/central/asa/addendum.htm>

**Semester requirements**

**The student will complete the following:**

**Laboratory activities as assigned.**

**Radiographic exposures:** All of the following exposures will be accomplished utilizing a DEXTER manikin. All digital exposures will be identified as follows: *DEXTER/student's last name (for example: DEXTER/Marcil)*

- 6 sets of Bitewing (BWX) radiographs
  - 1 horizontal bitewing set with tabs (4 film) - analog
  - 1 horizontal bitewing set with RINN XCP (4 film) – analog
  - 1 horizontal bitewing set with DEXIS sensor & holder (4 film) - digital
  - 3 vertical bitewing sets (4 film)
    - 2 analog (RINN)
    - 1 digital (DEXIS)
- 1 Occlusal film –analog– *lab exercise*
- 2 Full mouth series of radiographs (FMX) (20 film) - paralleling technique
  - 1 *Analog* FMX with VBWX on a DEXTER
  - 1 *Digital* FMX with HBWX- DEXTER

**Competencies:** Satisfactory (pass) performance on all six competencies (6):

Periapicals

1. A: Analog
2. D-1: Digital

Bitewings

3. B-1: horizontal bitewings, 4 film series, tab (1 side)
4. B-2: vertical bitewings – 4 film series with RINN
5. D-2: vertical/horizontal bitewings - digital

Panoramic

- 6.

*Incomplete competencies, process or product, will result in the final grade being lowered by .05 per process/product per competency.*

**All of the following exposures will be accomplished on a patient during a specified time and date in each lab session.**

- 1 FMX, *analog or digital* (VBWX or HBWX, patient selection)
- 1 Panoramic radiograph

**Interpretations will be accomplished for the FMX and for the panoramic patient radiographs.**

