

# Mills-Peninsula Medical Center School of Diagnostic Imaging

## 2024 Student Handbook



*Revised 6/12 ph, 6/13 ph, 12/13 ph, 1/14 ph, 4/14 ph, 6/14 ph, 6/15 ph, 6/16 ph, 1/17 ph, 3/17km,  
10/17km, 5/18km, 7/18js, 1/19ko, 5/19ko, 7/19ko, 6/20cp, 3/21cp, 2/22 cp, 8/22cp, 3/23cp,3/24cp*

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**A. Receipt of the Student Handbook**

I have received a copy of the current Student Handbook. It is my understanding that if I have any questions concerning material in this handbook, I may ask the Program Director, Program Assistant, or Clinical Coordinator for further clarification. I also understand that I am responsible for all the information contained in this handbook and will be expected to conform to its procedures during my involvement as a student in the Mills-Peninsula Medical Center School of Diagnostic Imaging.

Student signature in Trajecsys.

**B. Receipt of JRCERT Accreditation Contact Information**

The Mills-Peninsula Medical Center School of Diagnostic Imaging is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). The JRCERT is the only agency recognized by the United States Department of Education (USDE) and the Council for Higher Education Accreditation (CHEA) for the accreditation of traditional and distance delivery educational programs in radiography, radiation therapy, magnetic resonance, and medical dosimetry. This accreditation ensures that the Program adheres to standards that provide students with quality didactic and clinical education. To review the JRCERT Standards, visit the website at <http://www.jrcert.org>. If a student suspects that the program is in non-compliance with any standard, please contact the Program Director to discuss the issue. Any complaint can be reported to the Program Director, Radiology Administrative Director, or JRCERT directly (the JRCERT's contact information is listed below). The issue will be resolved in a timely manner.

Joint Review Committee on Education in Radiologic Technology  
20 N. Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
(312) 704-5300 – Telephone  
(312) 704-5304 – Fax  
mail@jrcert.org - Email

I have been made aware of the JRCERT Standards for an Accredited Educational Program in Radiography and the avenue to pursue allegations of non-compliance with the Standards.

Student signature in Trajecsys.

### **C. Receipt of the ARRT Standards of Ethics**

#### Eligibility for the ARRT examination

Eligibility for examination requires that the candidate be of good moral character. A lack of good moral character may be indicated if the student 1) was previously dismissed or expelled from a prior radiography program; 2) is suspended for academic dishonesty or other serious offenses at any point during the MPMC program; 3) has a prior conviction of a misdemeanor or felony; or 4) is convicted of a misdemeanor or felony while in the program. The ARRT Ethics Committee conducts a thorough review of all dismissals, suspensions, and convictions. Documentation required for a review includes a written personal explanation of the activity and court records to verify the conviction, the sentence, and the completion of the sentence.

Anything less than complete and total disclosure of all dismissals, suspensions, or convictions will be considered as having provided false or misleading information to the ARRT. This is grounds for permanent denial of eligibility for certification. The ARRT may conduct criminal background searches whenever appropriate. Disciplinary action may be taken at any time upon discovery that a disclosure was not complete/upon discovery of an incomplete disclosure

Pre-Application Review Forms may be requested from the Department of Regulatory Services at the ARRT Office. Failure to provide the necessary/required information in a timely manner could/may result in a delay in assignment to an examination.

The ARRT requires disclosure of all misdemeanor and felony convictions for all certification applicants. Persons considering enrollment in the Radiology Program may contact the ARRT in advance of considering/enrolling in these programs to learn whether a previous conviction will prevent certification to practice radiology. Please refer to <http://www.arrt.org>.

I have been informed that there is a moral character requirement for eligibility to take the ARRT examination as stated above. I have received and read a copy of the complete Standards of Ethics (Code of Ethics and Rules of Ethics).

I understand that it is my responsibility, as the student, to notify the ARRT to begin the above-mentioned review process to become eligible for examination.

Student signature acknowledgement in Trajecsys.

**D. Receipt of JRCERT & Program Direct Supervision Policy**

The Mills-Peninsula Medical Center School of Diagnostic Imaging is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Under Standard 5.4, the program assures that medical imaging procedures are performed under the appropriate supervision of a qualified radiographer. Appropriate supervision assures patient safety and proper educational practices.

The JRCERT defines direct supervision as student supervision by a qualified radiographer who:

- reviews the procedure in relation to the student's achievement,
- evaluates the condition of the patient in relation to the student's knowledge,
- is physically present during the conduct of the procedure, and
- reviews and approves the procedure and/or image.

According to the JRCERT:

Students must be directly supervised during surgical procedures.

Students must be directly supervised until competency is achieved. Once students have achieved competency, they may work under indirect supervision. The JRCERT defines indirect supervision as student supervision provided by a qualified radiographer who is immediately available to assist students regardless of the level of student achievement.

Repeat images must be completed under direct supervision. The presence of a qualified radiographer during the repeat of an unsatisfactory image assures patient safety and proper educational practices.

In addition to the JRCERT Supervision Policy, the School's direct supervision policy requires that students must also be directly supervised for all patients under the age of 18 for all venipuncture exams, and for all exams administering IV or injection contrast.

Students who do not follow the direct supervision policy will be counseled and dismissed from clinical rotations for a day. Dismissal duration is contingent upon the incident. Any clinical rotation hours missed from failing to adhere to the direct supervision policy must be made up after graduation or could be deducted from the student's PTO bank.

I have read and understand the JRCERT and Program's Direct Supervision Policy, and I agree to comply.

Student signature acknowledgement in Trajecsyst.

## **E. Parking Policy**

The Mills-Peninsula Medical Center's parking policy for the Burlingame and San Mateo campuses is as follows:

- Students are not allowed to park in any parking lot or parking space that is designated for patients, visitors, or physicians.
- Students are not allowed to use patient valet parking services.
- Students have the following parking options:
  - At the Burlingame campus, students may park inside the parking garage on the 3<sup>rd</sup> or 4<sup>th</sup> levels, or at the far west parking lot near radiology.
  - The San Mateo campus does not offer parking. Students must utilize street parking or the city's public parking garage.

Patients and visitors always take priority. Any student in violation of the Parking Policy will be subject to Student Corrective Action as outlined in the Student Handbook. Any questions or concerns may be discussed with the Program Director.

I have read and understand the MPMC Parking Policy, and I agree to comply.

## **F. Receipt of the Diagnostic Imaging Program Textbook List**

I agree to purchase all books, online modules, or materials--including any additional textbooks requested by the Program--from the list provided during Orientation. I agree to purchase the Elsevier books directly from the publisher and will submit a copy of the invoice to the program, upon request.

I acknowledge there is no refund if I should drop out or be dismissed from the program.

Student signature in Trajecsys.

## **G. ADA, Non-Discrimination, and Physical Requirements**

In accordance with the Americans with Disabilities Act (ADA), the MPMC Radiology School makes every effort to make reasonable accommodations to any qualified individual with a disability. The program will not discriminate against any individual because of race, color, creed, religion, marital status, sex, sexual orientation, gender identity, ancestry, national origin, age, medical condition, disability or status as a veteran or a disabled veteran.

Applicants will be made aware of the physical requirements for the position of Student Radiographer as a part of the healthcare team, as described in the Student Handbook.

I have received information on the Americans with Disabilities Act and understand I

must contact a physician prior to requesting ADA accommodations or modifications. I understand the Program's non-discrimination policy. The physical requirements of the Program must be met for the student to remain in classes and clinical rotations. The Program may ask for physician clearance if injury or situation warrants. I have reviewed the physical requirements of the Program in the Student Handbook and will discuss any concerns with program faculty.

## H. Attendance and Personal Time

Information on classroom and clinical expectations are listed in the Student Handbook.

- If a student does not come to clinical, they must:
  - Call the Department control at Burlingame or San Mateo prior to their start time.
    - Burlingame Control – 650-696-5261
    - San Mateo Control – 650-696-4120
  - Students must *also* notify the School Office by calling 650-696-5519 and leaving a message.
  - It is also requested to email or text the Program Director at [MPMCRadiologySchool@sutterhealth.org](mailto:MPMCRadiologySchool@sutterhealth.org) and CC the Clinical Coordinator at as soon as students know they will be absent.
  - On the weekends, students must notify the Program Director by text.
- Students are allotted 40 sick/personal hours (PTO) a year. Any additional missed time is to be made up after graduation. Personal days must be used by May 31 each year. Unused time is not carried over to the next year.
- Students who have missed 3 or more consecutive days due to illness or injury must obtain a written notification from their physician stating that they may return to classroom/clinical. If there are any restrictions, they must be stated on the notification from the physician. Students must meet all the Program's physical requirements prior to returning to clinical rotations.
- Tardiness is defined as arriving late to the scheduled clinical rotation or class. Attendance logs are maintained through Trajecsys and shall be recorded daily. Tardiness of more than 15 minutes will be deducted from the 5 days of personal time. Each third/3<sup>rd</sup> tardy in class or clinical results in a deduction of 4 hours of personal time off (PTO).

## Program Completion (Graduation Requirements)

- The Radiology Program requires students to complete a 24-month program and score 75% or higher in all didactic and clinical courses.

## I. Student Badges and Hospital Property

Each student is required to wear the official photo ID name badge issued by the Hospital/MPMC. It must be clearly seen and worn each day the student is on campus.



Students ***must*** wear their ID badges and radiation dosimetry badges when in the clinical area. **Students must leave radiation dosimetry badges in the badge holder at their clinical site.**

If a name badge or dosimetry badge is misplaced, students should obtain a replacement badge from the Program Director or the Clinical Coordinator. Students found on the clinical floor without proper badges will be dismissed for the day with a clinical absence.

All students are issued a set of radiographic lead identification markers within the first month of the program. These markers are to be used only by the student performing the procedure. These markers are like your “signature” on an x-ray image. It is important to mark the correct side with the correct marker.

If a marker is lost or misplaced, the student will contact the Office immediately for a set of replacement markers. The student is responsible for replacing the lost set within 3 weeks. Markers are replaced at the expense of the student, at a cost of approximately \$15 per marker set.

Students may be issued a Vocera communication badge while in the program. You are required to ensure the privacy/confidentiality of patient and staff information while using Vocera badge. To main privacy/confidentiality, transfer the call to a phone to continue the conversation, seek a private area to converse, or defer the call until a more appropriate setting or communication tool can be used. When using Vocera messaging, you are expected to limit messages to brief statements. You shall not leave messages that include patient identifiable data. You shall not leave messages that include emergent messages or verbal orders. You are expected to immediately report a damaged or lost Vocera badge to your supervisor. You will be subject to a replacement processing fee of \$150.00 for lost Vocera badges.

### Mission, Goals, and Student Learning Outcomes

The mission of the Mills-Peninsula Medical Center School of Diagnostic Imaging is to provide the community with competent and qualified imaging practitioners, who, through an outstanding quality education in the Radiologic Sciences, will possess high ethical standards and deliver excellent service and care with compassion and respect.

### Program Goals and Student Learning Outcomes

1. Students will be clinically competent.  
This goal is attained through comprehensive clinical and didactic curricula that prepare students to successfully perform all diagnostic, fluoroscopic, and mobile/surgical procedures.

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Student learning outcomes:

- Students will master entry-level skills in positioning.
- Students employ safe radiation practices on patients, self, and others.
- Students select appropriate technical factors for radiographic exams.

2. Students will demonstrate effective communication skills.

This goal is attained through coursework and clinical rotations including diagnostic, mobile, surgical, and CT imaging that is designed to provide students with the skills necessary to perform in all types of clinical settings.

Student learning outcomes:

- Students will communicate using professional language with patients, visitors, physicians, and staff.
- Students will listen without judgment to patients, visitors, physicians, and staff.
- Students will accurately obtain patient histories.

3. Students will develop critical thinking skills.

This goal is attained through coursework and clinical rotations including diagnostic, mobile, surgical, and CT imaging that is designed to provide students with the skills necessary to perform in all types of clinical settings.

Student learning outcomes:

- Students will modify standard procedures for non-routine exams.
- Students will adapt patient care skills for the injured or critically ill patient.
- Students will adjust technical factors for pathology and non-routine procedures.

4. Students will model professionalism.

This goal is attained with the guidance of staff radiographers, clinicians, radiologists, and other members of the health care team, who motivate and encourage our students.

Student learning goals:

- Students will always maintain calm composure.
- Students will treat patients, visitors, physicians, and staff with kindness and respect.
- Students will remain compliant with all mandatory health and safety training.

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### Program Description

The Mills-Peninsula Medical Center School of Diagnostic Imaging is a hospital-based program accredited by the Joint Review Committee on Education in Radiologic Technology, and approved by the California Department of Public Health, Radiologic Health Branch. All clinical and academic education takes place during a 40-hour per week schedule over 24 months. Upon the successful completion of the program, a certificate is awarded by the Mills-Peninsula Medical Center School of Diagnostic Imaging, allowing graduates eligibility for the ARRT Radiography Examination and the California Fluoroscopy Permit Examination.

JRCERT  
20 North Wacker Dr. Suite 2850  
Chicago, IL 60606-3182  
Phone: (312) 704-5300  
<http://www.jrcert.org/>

California Department of Public Health  
Radiologic Health Branch, MS 7610  
Sacramento, CA 95899-7414  
Phone: (916) 327-5106  
<http://www.cdph.ca.gov/>

### Didactic Curriculum - Approximately 861 hours

Didactic courses are taught by a staff of qualified instructors including the Program Director, the Clinical Coordinator, certified radiologic technologists, and a variety of guest speakers. Refer to the didactic syllabi for course titles, hours, instructors, and course descriptions for additional information.

First-year students attend lecture classes four hours a day on Tuesday, Wednesday, and Thursday mornings. Second-year students attend lecture classes four hours a day on Tuesday, Wednesday, and Thursday afternoons.

The initial weeks of the program are designed to orient new student radiographers to the field of radiologic technology. This orientation also includes the hospital environment as a whole and medical ethics, including patient care techniques, confidentiality, and medical terminology.

The curriculum is designed to coordinate the didactic and clinical portions of education in a manner that delivers optimum instruction to student radiographers. In this manner, the classroom instruction supports and coincides with the clinical progression of students.

This program operates on a semester system with completion of the program after four consecutive semesters.

Course objectives and outlines are handed out at the beginning of each course and are included in the Didactic Course Description portion of the Student Handbook.

### Clinical Curriculum - Approximately 2632 hours

First-year student radiographers spend 8 hours in a clinical rotation on Mondays and Fridays, and 4 hours on Tuesday, Wednesday, and Thursday afternoons. Second-year

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students' radiographers spend 8 hours in a clinical rotation on Mondays and Fridays, and 4 hours on Tuesday, Wednesday, and Thursday mornings. Each clinical rotation lasts for a period of 2 weeks. There are several different clinical rotations. As a student finishes one 2-week rotation, they move on to the next rotation until the cycle begins again.

First year clinical rotations include the following:

- Diagnostic radiography
- Fluoroscopic radiography
- Mobile and surgical radiography (2<sup>nd</sup> semester)
- Weekend diagnostic radiography (1<sup>st</sup> semester)

Second year clinical rotations include the following:

- Diagnostic radiography
- Fluoroscopic radiography
- Mobile and surgical radiography
- Special procedures (vascular/interventional radiography)
- CT scanning
- Evening and weekend diagnostic radiography

Clinical objectives for the program are included in the Clinical Course Description portion of the Student Handbook.

### Methods of Evaluation

Periodically, a student's academic and clinical performance must be evaluated to determine if the student is performing satisfactorily. A combination of the following evaluation tools may be used to measure a student's performance.

- Oral and written examinations
- Clinical practicums
- Clinical competency evaluations
- Clinical rotation evaluations
- Semester clinical performance evaluations completed by the Clinical Preceptors
- Semester performance evaluations (didactic and clinical) completed by the Program Director or Clinical Coordinator

Evaluations are recorded in Trajecsys and kept in the student's electronic file.

### Criteria for Successful Program Completion

- All students will complete the didactic courses in the curriculum set forth by the program, in sequence, and with final course grades of 75% or better.
- All students will complete the assigned clinical curriculum, meeting all requirements consistent with the Standards and Guidelines for an accredited 24-month competency-based program in Radiologic Sciences.

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- After successful program completion and graduation, the student will be eligible to take the American Registry of Radiologic Technologist examination.

### **Student Services**

The students are required to complete:

- A background check
- A pre-enrollment physical exam
- Any Hospital-required vaccinations
- Annual TB testing
- Annual flu shots
- Hepatitis B vaccination
- Varicella vaccination
- Respirator mask fit testing

The following services are provided at no charge:

- Liability insurance
- Lockers for personal belongings
- 1 set of radiographic markers
- Access to the hospital Medical Library
- Internet access within the classroom for educational purposes
- Internet portal allowing access to course syllabi, assignments, and grades
- Parking at Peninsula Medical Center.

The following services are provided to students at minimal/discounted fee:

- A discount code to order required textbooks through the vendor
- Inclusion in department or hospital-wide events
- My Clinical Exchange for initial health screening and annual health requirements

Access to information regarding low-cost personal counseling services available in San Mateo County:

- Asian American Recovery Services (Addictions), 1115 Mission Rd. SSF, CA 94080, (650) 243-4850 <http://www.healthright360.org/>
- Catholic Charities, CYO, (415) 972-1200 <http://www.sanmateo.networkofcare.org>
- Peninsula Family Service, 24 2<sup>nd</sup> Avenue, San Mateo, CA 94401, (650) 403-4300 <http://www.peninsulafamilyservice.org>
- County of San Mateo Health System, 222 West 39<sup>th</sup> Avenue, San Mateo, CA 94403, 1-800-686-0101 <http://www.smchealth.org>
- Central County Mental Health Center, 1950 Alameda De Las Pulgas, San Mateo, CA 94403, (650) 573-3571 <http://www.health-centers.healthgrove.com>

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Access to information requesting accommodations for disabilities as defined by applicable federal Americans with Disabilities Act and state laws. If you believe you have a disability for which you may need an academic accommodation, please contact the Program Director at (650) 696-5519 or [MPMCRadiologySchool@sutterhealth.org](mailto:MPMCRadiologySchool@sutterhealth.org).

### Health Insurance

The student is responsible for their own personal health coverage. The Program shall have no obligation to furnish medical or surgical care to any student. If a student is injured while in school, they may be evaluated at no charge to the student, after assessment by the Program. If a student is exposed by a patient during a clinical rotation in/for which the student is scheduled, the sponsoring institution will cover the treatment for exposure.

### Housing

Mills-Peninsula Medical Center offers no housing facilities for students attending any of the programs sponsored by or affiliated with the hospital.

### Outside Employment

Employment outside the school is permitted if school scheduling takes priority. The school will not alter students' schedules to accommodate outside work schedules. Students are expected to regard their education as top priority and to be present for assigned schedules regardless of outside employment.

### Financial Aid

Mills-Peninsula Medical Center School of Diagnostic Imaging does not sponsor financial assistance programs. Arrangements for financial assistance are solely the responsibility of the student.

Access to information regarding financial aid assistance can be found at the following government websites.

[www.ed.gov](http://www.ed.gov)

[www.fafsa.ed.gov](http://www.fafsa.ed.gov)

### Tuition and Fees

Currently, there is no tuition for the radiology program. Tuition and fees are reviewed each year and are subject to change at the start of each program. Students are responsible for buying their uniforms and textbooks. Students are required to purchase textbooks directly from the publisher. CPR is required and is the student's responsibility to maintain current CPR certification for the duration of the program. In addition, students must pay for parking at MPMC San Mateo Campus. A comprehensive list of fees and approximate costs are provided to the student during interviews and orientation.

Membership to CSRT is required.

### **Program Policies**

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### Essential Functions

In accordance with the Americans with Disabilities ACT (ADA), the Mills-Peninsula Medical Center School of Diagnostic Imaging makes every effort to make reasonable accommodations to any qualified individual with a disability. The program will not discriminate against any individual because of race, color, creed, religion, marital status, sex, sexual orientation, gender identity, ancestry, national origin, age, medical condition, disability or status as a veteran or a disabled veteran.

Applicants will be made aware of the physical requirements for the position of Student Radiographer as a part of the health care team. Each applicant will be evaluated on an individual basis. Should the applicant meet department and hospital requirements for the Student Radiographer, then every effort will be made to accommodate the student.

### Physical Requirements

To ensure the safety and welfare of students and patients, the student radiographer must be able to:

- Stand and/or walk in an erect posture for up to 8 hours a day.
- Lift a minimum of 35 pounds from floor-level to waist-level and lift a minimum of 10 pounds from waist level to shoulder level.
- Carry a minimum of 20 pounds directly on arms or hands while walking 100 feet.
- Bend or flex the upper trunk forward up to 45 degrees and flex the lower torso into a squatting position.
- Rotate the upper trunk, up to 30 degrees to the right or left, from the neutral position, while standing or sitting.
- Reach a maximum of 72 inches above floor level and/or a full arm's reach.
- Push and/or pull objects and equipment weighing up to 250 pounds.
- Manipulate radiographic and medical equipment and accessories utilizing dexterity, reaching, pulling, or extending.
- Utilize the sense of hearing and/or lip reading to effectively communicate with the patient or members of the health care team.
- Utilize the sense of vision in all levels of the radiology department or hospital lighting, which varies from low levels of illumination to bright light levels.

### Non-physical Requirements

- Respond quickly and appropriately to emergency situations using the English language.
- Be alert and situationally aware during class and clinic time.
- Always communicate in a professional manner with patients and staff using the English language.
- Tolerate strong, unpleasant odors.
- Handle stressful situations related to technical and procedural standards and patient care situations.
- Provide physical and emotional support to the patients during radiographic procedures.

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- May be exposed to infectious and contagious diseases; subject to electrical and radiant energy hazards; and encounter patient body fluids or wastes.

### Nondiscrimination Policy

The leadership of Mills-Peninsula Medical Center is committed to equal employment and educational opportunities. No person, based on race, color, creed, religion, marital status, sex, sexual orientation, gender identity, ancestry, national origin, age, medical condition, disability or status as a veteran or disabled veteran unrelated to program performance requirements will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination in the administration of any educational program or activity, including admission thereto. Similarly, this institution does not discriminate in employment based on color, race, creed, religion, marital status, sex, sexual orientation, gender identity, ancestry, national origin, age, medical condition, disability or status as a veteran or a disabled veteran unrelated to job performance, and it complies with the Age Discrimination in Employment Act of 1967, as amended, and with the Vietnam Era Veterans' Readjustment Act of 1984. The commitment to equal opportunity applies to all aspects of recruitment, employment, and education of individuals at all levels throughout the institution.

### Sexual Harassment Policy

It is the goal of the School of Diagnostic Imaging to provide an educational and employment environment free from unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment. Employees, students, or other persons acting on behalf of the Program who engage in sexual harassment as defined in this policy, or by state or federal law, shall be subject to discipline up to and including discharge, expulsion, or termination of contract.

Sexual harassment is comprised of unwelcome sexual advances, requests for sexual favors, and other verbal, visual, or physical conduct of a sexual nature when submission to the conduct is explicitly or implicitly made a condition of an individual's employment or academic work or academic performance, or of creating an intimidating, hostile, or offensive work or educational environment. While many types of conduct constitute sexual harassment, such behavior may include:

- Unsolicited, non-reciprocal requests for sexual favors
- Questions about one's sexual behavior
- Derogatory sexual or sexist comments, slurs, or jokes
- Comments about one's body and/or clothing
- Sexually suggestive pictures or objects displayed to embarrass or humiliate
- Repeated, non-reciprocated propositions for dates
- Pinching, fondling, patting or kissing

Sexual harassment is a violation of Title VII of the Civil Rights Act of 1964, California Government Code Section 11135, and California Education Code Sections 210 through 214 inclusive, Title IX of the Education Amendments of 1972 and of Mills-Peninsula Medical Center.



It is illegal for anyone to retaliate against an individual who files an unlawful discrimination complaint (including a complaint alleging sexual harassment); who refers a matter for investigation or complaint; who participates in an investigation of a complaint; who represents or serves as an advocate for an alleged victim or alleged offender; or who otherwise furthers the principles of this unlawful discrimination policy.

#### Orientation Probationary Policy

The initial twelve (12) weeks of the radiologic technology program is a probationary period designed to introduce the student to the field of radiologic technology, the Mills-Peninsula Medical Center radiology departments, and to give an overview of the courses required to complete the radiology program.

The student must receive a letter grade of C (75% GPA) or better during the Orientation Period in order to continue in the program. The Orientation grade is based on test scores, attendance, punctuality, clinical conduct, and completion of clinical rotation objectives.

#### Grading Policy

The evaluation for all academic and clinical course work will follow this grading scale:

100 – 94.5	= A
94.4 – 90.5	= A-
90.4 – 87.5	= B+
87.4 – 84.5	= B
84.4 – 81.5	= B-
81.4 – 78.5	= C+
78.4 – 75.0	= C
74.9 – 62.5	= D
62.4 – 0	= F

Grading Criteria: GPA is based on a 4.0 scale

Didactic grades are determined by:

- Test and quiz scores
- Homework and laboratory assignments
- Class participation and presentations
- Midterms and finals

Clinical grades are determined by:

- Attendance/Record Keeping in Trajecsys
- Completed competencies
- Case studies
- Various 2-week, weekend, and Clinical Preceptors' Evaluations
- Test outs (Semesters 2 and 4)

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The student is expected to maintain a 75% average or better in all subjects taught in the program. The student must pass each semester with at least 75% or higher on all didactic and clinical courses to remain in good standing.

### Academic Probation

When a student receives a final course grade less than 75% (C or below), the student will be placed on Academic Probation for the subsequent semester. A student receiving less than 75% on a final exam may be placed on academic probation the following semester. The student will be kept informed of his/her progress before this process occurs.

### Program Dismissal

If a student receives a grade less than 75% during the probationary period, the student may be dismissed from the program. Other instances of program dismissal due to misconduct, failed competency, etc. can be found in the Student Dismissal Policy.

### Honor Code Policy

All students are assumed to be honest. However, any cheating or plagiarism during any program activity is considered to be unethical, and consequences will follow. If the instructor has documented evidence that a student has committed an act of lying, cheating, or plagiarism, or any other unethical act, the student will be counseled and depending upon the nature of the event, could be dismissed from the program. If the incident involves cheating on an examination or paper, no credit will be given. Students who repeat this type of dishonesty will receive an "F" grade for the course and be dismissed from the program.

Dishonesty would include things such as:

- Copying answers from another person during an examination
- Sharing coursework with someone with the intent they will copy it
- Using unauthorized cheat-sheets for assessments or examinations
- Whispering answers during exams or practical assessments
- Plagiarism
- Fraudulently obtaining test information
- Falsifying records, transcripts, recommendations, or other documents
- Falsification of patient records or time records
- Breach of patient confidentiality
- Taking property or drugs from clinical sites or patients
- Felony convictions
- Endangering patients due to psychological impairment or by being under the influence of alcohol or drugs.

In proportion to the seriousness of the action, censure and penalty may extend from a failing grade in the work in question to dismissal from the program. Ordinarily, the responsibility for resolving the issue lies with the faculty member and the student.

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- **Statement on Cheating and Plagiarism:** Cheating includes all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means. Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material so used as one's own work. Plagiarism includes using materials from such sources as books, articles, class notes, web sources, & audio video resources. Penalties for cheating and plagiarism range from a 0 or F on a particular assignment, through an F for the course, to expulsion from the program.
- **Statement on Disruptive Classroom Behavior:** In the classroom or laboratory environment students must respect the rights of others seeking to learn, respect the professionalism of the instructor, and honor the differences of viewpoints. Student conduct which disrupts the learning process shall not be tolerated and may lead to disciplinary action and/or removal from class.

### Student Dismissal Policy

Immediate dismissal from the program will take place when such instances of serious misconduct and of such severity that the normal disciplinary process cannot be followed. Immediate discharge is proper when guilt is clearly established and of such severity as the following illustrative actions:

- Fighting
- Attempting to injure others
- Theft or attempted theft of hospital, employee/student, or patient property
- Deliberate mistreatment of patients
- Reporting under the influence of alcohol or narcotics
- Unauthorized possession of alcohol or narcotics on the premises
- Possession of a lethal weapon

Additional instances for dismissal:

- Inability to demonstrate competency in clinical education
- Inability to demonstrate a final course grade of 75% or higher in each class listed in the curriculum for two consecutive semesters
- Inability to cope/adjust emotionally with the clinical experience.
- Extended illness beyond the allotted sick time
- Intentional falsification of records
- Cheating

Students can be dismissed for the reasons listed above only after a three-day suspension during which time the student will receive counseling and has the opportunity to use the appeals process.

### Student Corrective Action

To ensure the students do not compromise the hospitals high standards of health care, the following criteria actions will be enforced.

### Corrective Actions

1. Corrective actions for minor or routine problems will occur as follows:
  - a. First offense: Verbal warning followed-up with an email to the student.
  - b. Second offense: Written warning noted on a Significant Incidence form, signed by student.
  - c. Third offense: Advising with the Program Director with possible suspension. If suspension is decided, the clinical days missed must be made up or could be deducted from the student's PTO bank.
  - d. Fourth offense: May be dismissed from the program.
  
2. A student may be suspended or dismissed from program or clinical education immediately for any of the following reasons:
  - a. Insubordination to any of the school faculty or hospital personnel that the student is responsible to, including radiology supervisors, physicians, technologists, clinical preceptors, and faculty.
  - b. Failure to comply with the policies, rules, and regulations of the Hospital/School.
  - c. Unprofessional conduct
  - d. Unauthorized schedule changes
  
3. Advising and misconduct corrective actions will be recorded and retained in the student's permanent file.

### Student Grievance and Appeals Process Policy

The student is encouraged to discuss any problems or concerns that they may have with the Program Director. There are occasions when the student will feel more comfortable discussing the situation with someone other than the Program Director. They can then speak with one of the clinical preceptors, radiology supervisor, and the medical advisor.

If the issue is not resolved, the student may follow the formal grievance procedure:

- Within 10 working days of the occurrence or concern, bring the situation, in writing, to the attention of the Program Director. A copy is to be emailed to the Program Director. The appropriate person will investigate and provide a solution or explanation within 10 working days.
  
- If the problem is still unresolved, you may put it in writing, not more than 5 working days after you have received a response, to the next level in the chain of command. They will provide a solution or explanation within 5 working days.
  
- If the problem is still unresolved, you may, not more than 5 working days after you receive a response, present the problem in writing to the Vice President of Human Resources. After consultation with other appropriate

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administrative representatives, a final decision will be given to the student within 21 days. The formal grievance decision is final.

- If a student is not satisfied with the formal process at the Human Resources' level, he or she may notify the JRCERT directly.
- It is recommended that the student follow the proper chain of command when addressing concerns.

### Chain of Command

Clinical Preceptor or Didactic Instructor  
Clinical Coordinator (for clinical concerns)  
Program Director / Clinical Coordinator  
Administrative Director  
Department of Human Resources  
JRCERT

### Student Early Release & Graduation Policy

The structure of the curriculum is based on a 24-month program. The program is part of an integrated plan based on competency-based education that includes approximately 861 hours of didactic education and 2362 hours of clinical education. Successful completion of this program is dependent on documented achievement of defined competencies and didactic objectives that require full time attendance for the entire 24 months.

### Liability Insurance

Mills-Peninsula Medical Center provides professional liability insurance for the students while engaged in student clinical learning activities. The hospital insurance does not cover a student who may work in institutions outside the scheduled clinical education time. Student malpractice insurance is available privately should the student desire additional coverage.

### Health Insurance

The student is responsible for their own personal health coverage while enrolled. The student is responsible for their medical treatment and expenses incurred from personal injury or illness. Proof of personal health coverage is required from the students prior to starting both the first and third semesters.

### When an Incident, Injury, or Illness Occurs at Clinical:

If a student is exposed by a patient or injured while scheduled in a clinical rotation,

1. Immediately tend to the injury if required (stop bleeding, wash site, etc.)
2. Let the immediate supervising technologist and radiology supervisor know of the situation.
3. **Notify the School immediately.** Continue to call or text until you reach either the Program Director or Clinical Coordinator. It is appropriate to leave a

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message or text on our cell phones, as this is considered an urgent matter requiring our immediate attention.

4. The student must complete an electronic eROI form--whether or not medical care is needed--within 24 hours of the incident. If the employee, physician, or volunteer is unable to complete the eROI, a designee should complete it.
5. The student may decline care. This will be documented on the eROI form.
6. If the student requires care from work exposure or injury, this is covered by MPMC. The student has the option to visit Employee Health, the Emergency Department, or Urgent Care, and should do so within 24 hours of the injury. The telephone number to Mills-Peninsula Employee Health is 650-696-5034. Program staff will discuss the proper course of action with the student. If the student is seen for the exposure or injury, they will receive a Work Status Report at the end of the visit.
7. The student should give the Program Director or Clinical Coordinator a copy of the Work Status Report within 24 hours of the visit with the medical provider and prior to returning to clinic
8. Additional questions may be directed to the Worker's Compensation Coordinator at 650-652-3886.

### Health and Immunizations

Before the student is accepted into the Program, they must be cleared by the Human Resources Department of the Hospital. Each student will have a physical examination performed by a qualified clinician.

#### 1. Hepatitis B Vaccine:

All students have the potential to be exposed to blood/blood products/body fluids. The students are offered the Hepatitis B Vaccine (free of cost) after one (1) month in the Program.

#### 2. Measles Rubeola Immunization:

All students must provide evidence that they are immune to measles or show documentation of immunization prior to the beginning of school/the Program

#### 3. Tuberculosis:

All students must provide evidence that they are free of tuberculosis or show documentation that they have tested prior to the beginning of the program. Students participate in a yearly TB screening program.

#### 4. Varicella:

Students are made aware of the hospital's Varicella screening and vaccine program during their physical examination, after acceptance to the program. They are offer the vaccine free of cost.

#### 5. Influenza:

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Students are made aware of the hospital's Influenza vaccine program and are offered the vaccine free of cost.

### 6. Covid:

All students must provide evidence that they have received the COVID-19 vaccinations required by the organization.

### 7. Patients with Infectious Diseases

Due to the increasing concern about the care of patients with infectious diseases (e.g., hepatitis B, acquired immune deficiency syndrome, tuberculosis), students are strongly advised to follow the exact procedures that are established by the hospital primarily isolation techniques in caring for these patients. Students should report any contact with communicable disease in accordance with the policies of Mills-Peninsula Medical Center when it occurs.

Additionally, Occupational Safety and Health Act OSHA amendments suggest that all individuals who are involved in clinical education in acute-care or long-term facilities should be vaccinated for Hepatitis B. The exception is for individuals that are pregnant. After the delivery, you should seek vaccination as soon as a physician gives permission.

### 8. Students with Infectious Disease

Students with an infectious disease, other than the common cold, may not attend clinical or classroom education. They should inform both the Floor Supervisor at Control and the Program Director or Clinical Coordinator immediately upon diagnosis. They may not return to their clinical rotation/classroom without presenting their doctor's release and written release from an MPMC employee health doctor.

### Fire Procedures and Safety

Fire prevention is very important in a hospital. Carelessness and thoughtlessness are the two main reasons for a fire. Mills-Peninsula has set up fire prevention plans to protect patients, employees, visitors, and property. Fire drills are conducted at least once per shift per quarter. Participation in the drill is required.

The radiology departments have a fire plan that is specific to/for their areas. You are responsible for identifying the following items located within the department:

- Fire exits
- Fire alarm pull box
- Fire extinguishers
- Fire extinguishers and hose cabinet
- Fire doors

### Code Red Procedure: RACE

- **R**emove all persons from the immediate fire area.
- **A**larm. Pull the nearest fire alarm. Dial 1111 and report the location of the

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fire.

- **C**ontain the fire by closing all doors and windows.
- **E**xtinguish the fire if your safety can be assured. Be prepared to move all patients to a safe area away from the fire.

All students will attend an orientation session that explains the fire safety procedures in greater detail.

### Evening and Weekend Clinical Rotations

To provide a complete course of study in the field of Radiologic Technology, the student's clinical schedule includes clinical rotations other than daytime rotations, evening, and rotational weekends.

- Clinical hours for evenings consist of an 10:30am-7:00pm or 11:00-7:30 rotation for 2<sup>nd</sup> year students. The weekend clinical rotations are 7:30am – 4:00pm, 8:45am – 5:15pm, and 10:30am – 7:00pm during 2<sup>nd</sup> year, Semester IV. The supervising radiographer will be responsible for the students.

These rotations are designed to:

- Give the student the opportunity to observe and participate in emergency and trauma exams that do not routinely occur during normal weekday rotations.
- Demonstrate the differences in technical responsibilities between daytime, weekend, and evenings.
- Provide students with the opportunity to perform with radiographers that are highly skilled in emergency and surgical procedures.
- Allow the students to perform general radiographic procedures in order to utilize critical thinking skills with appropriate supervision, thereby encouraging the student to make technical and positioning judgments, especially in non-routine situations.
- To provide the additional skeletal, surgical, and mobile examinations that are necessary to meet the competency requirements.

Students' total weekend and evening clinical clock hours shall not exceed 25% of the total clinical hours. For example, total clinical education hours are approximately 2632 hours. The total hours that the student spends in clinical evening and weekend assignments shall not exceed 658 hours. Current students spend less than 260 hours of their total clinical education in evening and weekend clinical assignments.

### Classroom and Clinical Absence

Clinical time missed:

- The student must call Control at Mills or Peninsula and speak to the Lead or Supervisor at least one hour before start of clinical.
- The student must *also* notify the School Office at 650-696-5519 and leave a message.



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- The student must send an email/text to the Program Director and Clinical Coordinator.
- The student must enter the missed time the same day into Trajecsys using the Significant Incident Form, which must include the date and the total number of hours missed.

### Didactic time missed:

- The student must ext/Email the Program Director, Clinical Coordinator, and if possible, the Instructor
- The student must call the School Office at 650-696-5519 and leave a message.
- The student's missed time must be entered Trajecsys using the Significant Incident Form on the day the time is missed, which must include the date and the total number of hours missed.

Students are allotted 40 sick/personal hours a year. The 40 hours cannot be carried over to the second year and must be used by May 31<sup>st</sup>. Any additional clinical time missed is to be made up after graduation. PTO time is not reloaded until July, after summer break.

Students who have missed 3 or more consecutive days due to illness or injury must obtain a written notification from their physician stating that they may return to classroom/clinical. If there are any restrictions it must be stated on the notification from the physician. Students must meet the program physical requirements prior to returning to clinical rotations.

All clinical make-up time will occur after graduation. Students with outstanding clinical make-up hours may still participate in the graduation ceremony. The program certificate will be issued once all clinical hours are complete.

- If the student calls in sick due to illness or injury, they must take the entire day off. Students cannot call in sick for clinical rotation and then attend classes in the afternoon.
- Students are responsible for the material they have missed during their absence. If a test was given during that absence, the student should bring a physician's note upon return. At the discretion of the instructor, the student will take the examination the day they return from their absence. It is the responsibility of the student to make arrangements to schedule the make-up exam at a time when there are no clinical or classes. Missed final exams will result in a zero. Missed quizzes cannot be made up.

### Excused absence

Upon approval of the Program Director, the following excused absences may be granted in advance:

- Funeral/bereavement leave for immediate family
- Jury duty
- Military duty

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- Attendance of professional meetings or MPMC student activities
- Excused absences may also be granted to individuals in extenuating circumstances as determined by the Program Director.

### Unexcused absence

Unexcused absences consist of unscheduled time off without prior authorization from the Clinical Coordinator or Program Director. Unexcused absences could result in dismissal from the program.

### Tardiness

Tardiness is defined as arriving late to the scheduled clinical rotation or class. Written times in the attendance logs should be recorded accurately. Tardiness of more than 15 minutes will be deducted from the 5 days of personal time. Each 3<sup>rd</sup> tardy from class or clinical results in a deduction of 4 hours of personal time off. Additional corrective action will be taken for repeated tardiness as outlined in the corrective action section of this manual. Please note: You cannot stay over your assigned shift to make up for tardiness. The corrective actions are:

- 2<sup>nd</sup> tardy within a semester—verbal warning with email
- 3<sup>rd</sup> tardy within a semester—written warning, deduction of 4 hours of personal time off
- 4<sup>th</sup> tardy within a semester—clinical or didactic grade lowered by one.
- 5 or more tardies within a semester—subject to program dismissal

### Vacation and Holiday Policy

Students are given vacations at spaced intervals throughout their education. The current student vacations are as follows:

#### *Winter vacation:*

Students are not scheduled for academic classes or clinical rotations during the winter vacation period. See the Academic Calendar for specific dates.

#### *Summer vacation:*

Students are not scheduled for academic classes or clinical rotations for the summer vacation. See the Academic Calendar for specific dates.

#### *Holidays:*

Students are given holidays throughout their education. Students are not scheduled for academic classes or clinical rotations on holidays. Students also cannot perform make-up clinical rotations on School-observed holidays. The current list of holidays:

New Year's Day  
Memorial Day  
Thanksgiving Day

MLK Birthday  
Independence Day  
Christmas Day

President's Day  
Labor Day

### Uniform and Dress Code Policy

While at Mills-Peninsula, it is each student's responsibility to ensure that his/her personal appearance, hygiene, and demeanor inspire confidence and project an image of professionalism to our patients. Uniforms must be clean and professional in fit.

We require students to wear the designated uniform consisting of:

- Professional scrub uniforms in navy blue with program logo
- Lab jacket is optional (not the long coats)
- It is important to wear shoes (plain-no prints) that are clean, and provide support and comfort.

The following are unacceptable:

- Hoodie over uniform during clinical or classroom hours
- Clothing or buttons with slogans, pictures, or political statements
- Caps/hats worn during clinical or classroom hours, except for religious purposes
- Jeans
- Shorts
- Leggings
- Facial piercing
- Dirty or torn clothing
- Tattoos that are uncovered
- Artificial or acrylic fingernails are prohibited.
- Fingernails must be kept clean and trimmed.
- Cologne, after-shave, perfume, body wash, or anything that has a strong fragrance.

### Clinical Conduct and Performance

Students shall conduct themselves in a professional and ethical manner at all times. Profanity in the patient care areas and in the classroom environment is not tolerated. Insubordination to faculty and clinical preceptors, or dishonesty, could be a reason for immediate suspension from the program.

In addition to being expected to follow the rules and regulations established by the Program and Mills-Peninsula Medical Center, students are expected to follow the American Registry of Radiologic Technologists Standard of Ethics and act in accordance with the American Hospital Association's Patient's Bill of Rights.

Students are expected to behave professionally and respectfully at all times. Enrolled students will receive a list of the current rules of conduct at the time of enrollment. Students are subject to immediate dismissal for any activity or action that endangers another person, or for unethical conduct or violation of the rules of conduct.

Any student failing any portion of the clinical curriculum will be put on probation using

the counseling steps outlined in the unsatisfactory performance policy. If during the specified period of time the student's clinical performance does not improve to meet the acceptable standards, the student may be terminated from the program.

#### Unsatisfactory Performance Policy

In the event that unsatisfactory performance or progress has been identified on evaluation forms or transcripts, the following steps would be taken. Student counseling will take place and an appropriate time frame is given for improvement. The Program Director will:

1. State the problem as clearly as possible.
2. Give standards as applicable to the stated problem.
3. List performance and/or attitude expectations and goals.
4. Give a specific date by which improvements are expected to be met.
5. Document any previous counseling and the action taken.
6. Allow the student to make verbal and written comments.

Each individual case may vary resulting in different disciplinary actions. However, the same counseling format is used. Concerned counseling will be used in order to correct poor academic progress or clinical incompetence as soon as they are recognized.

#### Student Evaluation Policy

The student will be evaluated using various evaluation forms to guide instructors in identifying the student's strengths and weaknesses; to recognize areas that need improvement; and to meet goals corresponding to the clinical and didactic objectives of the program. The clinical advising forms are described in the following section.

#### Clinical Advising

All students enrolled in the radiography clinical education are evaluated and advised regarding their ability to care for patients in a professional and ethical manner. The advising program is conducted via several documents.

1. Significant Incident/Concern Forms are to be utilized by faculty and students to document positive or negative educational experiences of the student. These are discussed at the time of the occurrence and placed in the student's permanent physical and digital files.
2. Two-Week Clinical Rotation Evaluation forms are completed by the supervising radiographers who performed closely with the student and can verify the student's progress in specific clinical areas. These evaluation forms are completed and made available to the Program Director as the student finishes each two-week rotation. The forms are kept in the student's physical and digital file after review by the Program Director.

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3. Weekend Rotation Evaluation forms are to be completed by the weekend supervising radiographer, and to reviewed by the Program Director and kept in the student's physical and digital files.
4. Self-Evaluation forms in Trajecsys need completing by all students two weeks before the end of each academic semester. Students will complete the form prior to a scheduled advising session with the Program Director. The form requires students to assess their current skills in various procedures, professional abilities, overall abilities, and recent progress. Students must establish at least one goal to be accomplished by the next advising session. This goal is set so that the student can strive to overcome any particular problem that they, as well as the Program Director, may perceive.
5. Student Performance / Clinical Evaluation Form is completed by the Program Director, Clinical Coordinator, and the clinical preceptors. These are summarized notes and comments that have been made by the evaluators throughout the semester and discussed with the student each semester. This performance evaluation includes all aspects of the clinical experience. The students will be advised of their academic standing in each course at this time. A copy is signed by the student and Program Director and is filed in the student's physical and digital file.

### Clinical Competency

Clinical competency evaluations must be completed in a timely manner as stated on the Clinical Competency Evaluation form. Should the requirements not be met, the student will fail the clinical portion of the program for that semester and be placed on probation. The student will be given an appropriate timeframe in order to complete the required competencies. Should the student fail to maintain minimum standards of competencies within any semester, the student may be terminated for the program.

### Radiation Protection Policy

#### State of California Radiologic Technology Act

The Radiologic Technology Act sections 25600 to 25699.3, inclusive of the Health and Safety Code and the Regulations Relating to Radiologic Technology sections 30400 to 30468, inclusive, of the California Code of Regulations, Title 17 contain the established laws and regulations relating to education, training and experience for radiologic technologists. The California Department of Public Health has the training experience and the Radiologic Health Branch RHB has the responsibility to provide for inspection and approval of diagnostic radiologic technology programs.

The following ALARA radiation safety rules have been established for the protection of the patient, other personnel, and students from ionizing radiation during the radiology clinical education. These rules are a combination of State and Federal regulations,

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laws, and additional guidelines in the use of ionizing radiation. The rules are mandatory, and any exception must be reported to the Radiology Department and Program Director immediately.

1. Personnel monitoring devices:
  - a. A radiation monitoring device, properly placed, must be always worn during clinical education. If a badge is misplaced, students should obtain a replacement badge with the Program Director or with the Clinical Coordinator. Students found on the clinical floor without a dosimetry badge will be dismissed for the day with a clinical absence.
  - b. When lead aprons are used, the radiation monitoring device must be placed outside the apron and at the collar level.
  - c. Students are responsible for exchanging their monthly monitoring with the Program Director or Clinical Coordinator
  - d. The dosimeter readings will be kept in the Program Director's office in a dosimetry binder. Current dosimetry readings will be posted in the classroom on the bulletin wall.
  - e. Students are required to review the radiation report each cycle and sign or initial the radiation report.
  - f. Each required record of dose equivalent received by students must be kept (preserved) indefinitely.
  - g. Monitoring devices are sent for evaluation each cycle to Landauer Inc., 2 Science Road, Glenwood, IL 60425-1586.
  - h. Radiation dose reports are reviewed each cycle by the Radiation Safety Officer and the Radiology Director within 10 days of receipt.
  - i. Readings higher than 10 mrem / month are investigated by the Radiology Director. Readings higher than 125 mrem / quarter are investigated by the hospital physicist and the RSO. Findings are reported to the State.
  - j. A final cumulative dose report will be issued to all students upon graduation.
2. During any x-ray exposure, students must do one of the following: Leave the room.
  - a. Be protected behind a leaded shield or wall.
  - b. Be otherwise suitably protected for surgery, portable, or fluoroscopy.
3. Students are NOT permitted to hold or support a patient during any exposure. If a student is asked to do so by a technologist, the student is expected to report the event to the Clinical Coordinator and Program Director.
4. During an exposure or procedure, students are NOT allowed to be placed in a direct line with the central ray, even when wearing a lead apron.

5. Under no circumstances will a student or any other human being serve as a "patient" for test exposures or experimentation.

#### Student Pregnancy Policy

If a female student becomes pregnant, she may voluntarily choose to inform the program officials of her pregnancy. If she chooses to inform program officials, it must be in writing and indicate the expected date of confinement delivery. In the absence of this voluntary written disclosure, a student cannot be considered pregnant.

Students who have declared a pregnancy, may undeclare their pregnancy at any time. A pregnant student wishing to undeclare a pregnancy must do so in writing and submit this document to the Program Director.

Once the program officials have been informed in writing of the pregnancy, the female student will be informed verbally, and in writing, of the policies, protective techniques, and any adverse effects. The student is required by California State law to use two personal monitoring devices, one at the collar and one at the waist.

The student will abide by the NRC and the State of California Title 17 recommendation that an individual's dose should be kept as reasonably achievable ALARA, and that no dose is considered permissible.

The pregnant student will adhere to the following dose-equivalent limitations:

#### **Total dose equivalent limit 5 mSv (500 mrem) & Monthly limit 0.5 mSv (50 mrem)**

The pregnant student will be given the following options:

1. Leave the program immediately, with the opportunity to return to the program within one year.
2. Continue in the program at the current pace with no modifications to the clinical schedule.
3. Continue in the program with modifications to clinical schedule. If the student decides to continue in the program with clinical changes:
  - They will not perform mobile or surgical x-ray procedures when ionizing radiation will be used, and
  - They will not assist in special procedures or fluoroscopic procedures when ionizing radiation will be used.

Clinical time-off beyond the allotted 10 days extended illness policy must be made up prior to completion of the program. The student must demonstrate competency in all mandatory radiographic procedures before completion of the program. Three of the 36 mandatory procedures may be simulated.

#### Student Supervision Policy

The number of students assigned to the clinical setting must not exceed the number of clinical staff assigned to the Radiography Department. The student to radiography

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clinical staff ratio must be 1:1. However, it is acceptable that more than one student may be temporarily assigned to one technologist during uncommonly performed procedures, with the prior permission of the radiology supervisor.

Students assigned to advanced imaging modalities, such as computed tomography, magnetic resonance, angiography, and sonography, are not included in the calculation of the authorized clinical capacity unless the clinical setting is recognized exclusively for advanced imaging modality rotations.

Students follow the cycle of:

- Classroom instruction
- Positioning lab/checks
- Successfully demonstrating and documenting competency in any given procedure

Until competency is documented, all clinical assignments shall be carried out under the direct supervision of qualified radiographers.

A qualified radiographer:

- Reviews the request for exam in relation to the student's achievements.
- Evaluates the condition of the patient in relation to the student's knowledge.
- Is present during the conduction of the examination.
- Reviews and approves the radiographs before the patient is dismissed.

After demonstrating competency, students may perform procedures with indirect supervision with the exception to surgery and mobile radiographic procedures. Indirect supervision is defined as that supervision provided by a qualified radiographer immediately available to assist students regardless of the level of achievement. A qualified radiographer reviews and approves the radiographs.

Regardless of the level of achievement, students will perform surgery and mobile radiographic procedures with direct supervision.

Competency may be obtained at either campus facility.

### Repeat Image Policy

Only a qualified radiographer may determine whether an image should be repeated with a second exposure. Any student repeating unsatisfactory, second-exposure radiographs shall do so only in the presence of a qualified radiographer, under direct supervision. Students may NOT pass competency if a second exposure, or repeat, is needed.

### Student Fluoroscopy Policy

Students will not operate fluoroscopic equipment of any type at any time under any circumstances when human subjects are involved unless directly supervised by a licensed physician with a current California Fluoroscopy Permit or a technologist who



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holds a current State Certified Radiologic Technologist with fluoroscopy privileges. Second-year students, however, who have successfully passed the Radiation Biology/ Radiation Protection Course and the Surgical and Mobile Procedures Course may operate a C-arm mobile fluoroscopy unit in the operating room under the supervision of a licensed physician with a current California Fluoroscopy Permit and direct supervision of a certified technologist who has the State of California fluoroscopy privileges. Students are never to use fluoroscopic equipment to determine positioning. Students shall not energize fluoroscopic equipment unsupervised except to fluoroscope a phantom.

During fluoroscopic procedures, students will adhere to the following guidelines:

- A lead apron must be worn at all times.
- The student must not be in a direct path with either the tube or patient.
- The radiation monitoring device must be worn outside the lead apron at the collar level.
- The student must stand as far from the patient and tube as possible, consistent with the nature of the examination.

### Pediatric Imaging Policy

It is the responsibility of technologists, student radiographers, and all members of the healthcare team to ensure that every imaging study in pediatric patients is thoughtful and appropriate, and is completed using correct technical factors, appropriate immobilization devices, and proper radiation protection measures.

Due to the developing tissues in children and the sensitivity of their cells to ionizing radiation, students shall not perform any type of imaging procedures without direct supervision on any patient 17 years of age or younger. Direct supervision must be performed by a qualified radiographer. Students who expose patients 17 years of age or younger without direct supervision will receive counseling with a written warning, and in severe cases of non-compliance, may be suspended or dismissed.

### Venipuncture Policy

In order to meet the requirements of California Health and Safety Code Section 106985 d for the radiologic technologist in venipuncture and contrast materials, second-year students will be instructed in a Venipuncture course.

After the student has successfully completed the didactic instruction, they will be required to perform 10 successful venipunctures in the clinical setting on adult patients. All venipunctures the student performs must be done with direct supervision of a radiology nurse at Peninsula Medical Center.

The student will receive a certificate of completion after all venipunctures have been performed. After successful completion of this course, the radiology student must continue to be directly supervised by a radiologist or radiology nurse while performing venipunctures. The students must follow the Radiology Departments' Injection Policy at all times.

### Job Placement

This program does not advertise or guarantee any employment services. However, many of the contacts of the Radiology Department, such as sales representatives and alumni, often inform the students of potential job opportunities.

### Record Keeping Policy and Availability of Records

The following student records are maintained for 8 years:

1. Application to the program
2. Letters of recommendations
3. Transcripts submitted with the application
4. Interview form
5. Acceptance letter
6. Attendance records
7. Clinical performance evaluations
8. Clinical competency exam evaluations
9. Counseling records
10. Grievance Procedures

The school maintains the following student records permanently:

1. Transcripts that include didactic and clinical course grades and hours.
2. Clinical competency record
3. Venipuncture, Fluoroscopy Course, Computed Tomography, and Program Completion Certificates
4. Radiation monitoring records

### Availability of Records

In compliance with the Federal Family Educational Rights and Privacy Act of 1974, also known as The Buckley Amendment, the student may review his/her records upon request. No part of the student's records may be copied or transferred without the written request from the student.

### **Introduction to Clinical Education**

The overall guideline for all clinical education rules is that students are expected to conduct themselves in a professional manner at all times during clinical education. These rules simply indicate the exact elements of professional behavior and conduct for the Mills-Peninsula Radiography Student.

Students experience two major clinical rotations. The clinical and classroom schedule is as follows:

Clinical – 28 hours/week    Didactic – 12 hours/week

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Clinical Education I	July 5 – mid-December
Clinical Education II	beginning of January – end of June
Clinical Education III	beginning of July – mid-December
Clinical Education IV	beginning of January – end of June

### Rotations and Schedules

- The length and nature of the rotations will be determined by the Program Director.
- The day-to-day scheduling and room assignments will be made by the clinical supervisor.
- Clinical schedule changes by the student are not permitted.
- The starting time for students varies. The student will be scheduled at the hospital for no more than 8 hours daily. This may include the didactic portion of their education. In the event of a catastrophic situation and students are not allowed onsite, upon return, makeup for clinical time greater than 8 hours daily is voluntary.

### Student Responsibilities

- All students are subject to the rules and regulations of Mills-Peninsula Medical Center.
- Students are responsible for their own transportation to and from their clinical rotations.
- All students are required to provide their own uniforms.
- Students *must* carry their ID badges and dosimetry badges on the clinical floor.
- Students *must* always carry their technique books and radiographic markers with them during their clinical rotations.
- All students are required to be present in their assigned areas for clinical education during the hours assigned. Each student is required to check in with the supervising technologist at the beginning and end of their rotation.
- If a student needs to leave for any reason, they must notify the Program Director, the Clinical Coordinator, or the supervising technologist for that day.

### Clinical Conduct

In addition to being expected to follow the rules and regulations established by the Hospital, students are expected to follow the American Registry of Radiologic Technologists Standard of Ethics; cooperate with the American Hospital Association's Patient's Bill of Rights; and to abide by the Health Information Health Insurance Portability and Accountability Act HIPPA.

The students are also expected to follow all hospital policies including:

- Respect the privacy of friends/family who are patients and abide by hospital rules and regulations.
- Students cannot make or receive personal telephone calls on the hospitals'

phones except in a case of an emergency. Public telephones are to be used for all non-hospital business.

- Cell phones must be silenced during clinical and didactic course hours.
- Smoking is not permitted in any of the hospitals. The hospitals are a smoke-free environment.
- Clinical and classroom experience is designed to encourage responsibility in a professional and ethical environment, and this includes behavior such as cooperation, accepting constructive criticism, and dependability.

### Personnel Monitoring

All students in the Radiography Program will wear a personnel-monitoring device, preferably at the collar, at all times when using ionizing radiation during clinical education and laboratory procedures. Students not wearing a personnel-monitoring device will be assigned to non-radiographic areas for the day.

During fluoroscopy, personnel-monitoring device will be worn outside the lead apron at the level of the collar.

Personnel-monitoring devices are to be worn only during clinical education and labs. New personnel-monitoring devices are to be changed the first of each month.

Lost or accidental exposure of a personnel-monitoring device shall be reported to the Program Director immediately. It is the responsibility of the student to notify the school of a lost badge and obtain a replacement, or spare dosimetry badge, prior to exposing patients. Students who are not wearing their dosimetry badge on the clinical floor will be dismissed for the day and personal time off will be used.

### Radiographic Lead Markers

All students are issued a set of lead identification markers within the first month of the program. These markers are to be used only by the student performing the procedure. These markers are like your “signature” on an x-ray image. It is important to mark the correct side with the correct marker. Use of digital markers in lieu of your assigned lead markers is prohibited.

If a marker is lost or misplaced, the student should contact the office immediately for a set of replacement markers. The student is responsible for replacing the lost set within 3 weeks. Markers are replaced at the expense of the student.

### Hospital ID / Name Badges

Each student is required to wear the official photo ID name badge issued by the hospital. It must be clearly seen and worn each day the student is in the clinical setting. Students are required to badge in using Trajecsys when the student is in their clinical assignment ready to work. For example, the student is not allowed to badge in from their car, the parking lot, or the freeway. The official name badge must also be worn at all times at the collar level with your picture visible while on campus.

### Incidents

It is important that the Program has a record of all incidents in case of litigation. The prescribed format must be followed according to the hospital policy for reporting incidents:

The school must be contacted immediately and a Significant Incident/Concern Form in Trajecsys must be completed. A copy will remain in the student's file. Students will be subject to corrective action if they fail to follow this procedure.

### Clinical Requirements

As a part of the educational program, students must demonstrate competence in the following radiographic examinations. Demonstration of clinical competence means that the supervising technologist has observed the student performing the procedure, and that the student performed the examination independently, consistently, and effectively. Students must demonstrate competence in the following areas:

- Ten (10) mandatory ARRT general patient care activities
- Thirty-seven (37) mandatory ARRT radiologic procedures
- Fifteen (15) elective ARRT radiologic procedures to be selected from a list of thirty-four (34) elective procedures.
- One (1) elective imaging procedure from the Head section
- Two (2) elective imaging procedures from the fluoroscopy studies section, one of which must be either an Upper GI or a Barium Enema.
- In addition to the above-listed competency requirements, the School may add additional competency requirements for completion of the program.
- Clinical rotation objectives checklists for both clinical sites need to be completed during the probationary period.

### Clinical Competency Information

- Clinical Competencies are achieved by performing radiographic procedures on patients during clinical education. Preliminary Tech Check forms are required prior to obtaining a Competency. However, the Tech Check and competency could, in special circumstances, occur simultaneously.
- Students are responsible for arranging to have a qualified evaluator present prior to the START of the procedure. This evaluator must be a radiologic technologist, who has a minimum of 2 years' experience.
- Demonstration of competence includes requisition evaluation, patient assessment, room preparation, patient management, equipment operation, technique selection, positioning skills, radiation safety, image processing, and image evaluation.
- Clinical competencies may be rejected by the Program Director or the Clinical Coordinator if deemed necessary, due to the failure of the evaluator to note errors during competencies (e.g., lack of markers, gross positioning errors, etc.).

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- Not more than one competency will be granted for the same procedure and/or on the same patient. As in, a portable wrist will not count as a wrist and a mobile orthopedic. Additionally, “splitting” a bilateral exam, or as in one student attempts a competency on a foot, and the other on an ankle on the same patient.
- The exam portion of the competency form may be filled out by any observing qualified radiographer with at least 2 years’ experience. The image evaluation portion of the competency form must only be evaluated by the Clinical Coordinator, Program Director, Clinical Preceptors, or appointed radiographers designated by the Program Director or Clinical Coordinator.

### Mandatory and Elective Clinical Competency List

There are core clinical competencies that students must perform to establish eligibility for completion of the Program and ARRT certification. Clinical competency credit will not be granted without the image analysis portion successfully completed. Clinical competencies may be attempted after the following series has occurred:

1. The student successfully passes the didactic instruction attendance in positioning class.
2. The student passes the class practicum and positioning test.
3. The student asks a qualified evaluator with at least 2 years of RT experience, who believes that the student is competent to perform the procedure, to Tech Check the exam.
4. Once a Tech Check has been performed, the student may perform a competency on the examination. Competencies should be performed by the student without assistance from the radiographer.
5. Any second attempt, or repeat exposure, will require the student to attempt the Tech Check or Competency at a later time.

Demonstration of competence should include variations in patient characteristics such as age, gender, and medical condition. Tech checks and/or competencies can occur simultaneously if necessary and only, as specified by the program. Students will not “share” competencies on the same patient, out of respect for the patient.

**MPMC Competency Requirements**

**Grading for Mandatory and Elective Competencies**

<b>Semester I</b>		<b>Semester III</b>	
9 Competencies and above	A	11 Competencies and above	A
7 – 8	B	7 – 10	B
5 – 6	C	5 – 6	C
3 – 4	D	3 – 4	D
0 – 2	F	0 – 2	F
<b>Semester II</b>		<b>Semester IV</b>	
11 Competencies and above	A	11 Competencies and above	A
7 – 10	B	7 – 10	B
5 – 6	C	5 – 6	C
3 – 4	D	3 – 4	D
0 – 2	F	0 – 2	F

**Simulations**

The ARRT requirements specify that certain clinical procedures may be simulated. Simulations must meet the following criteria:

- The student is required to competently demonstrate skills as similar as circumstances permit to the cognitive, psychomotor, and affective skills required in the clinical setting.
- The Clinical Coordinator or Program Director is confident that the skills required to competently perform the simulated task will generalize or transfer to the clinical setting.

Examples of acceptable simulation include:

- Demonstrating CPR on a mannequin.
- Positioning a fellow student for a projection without actually activating the x-ray beam.
- Evaluating an image from a teaching file to fulfill the image analysis requirement.

All thirty-seven (37) required clinical competencies should be performed on patients whenever possible.

All mandatory, elective, and general patient care competencies must be completed prior to earning a certificate of completion from the Program. Patient care activities are required. Ideally, students should perform these activities, however, simulation is acceptable.

In addition to the mandatory competencies, fifteen (15) elective competencies must be completed per year.

### Image Analysis

Image Analysis critiques are part of the clinical competency grade and is the second portion of the clinical competency evaluation.

- Image analysis critique must be completed for all competencies and with the images produced for the original competency.
- Competencies must be reviewed within one (1) month of performing the examination.
- The completion of image analysis forms is considered to be an outside or homework activity. The form may be filled out by students during clinical time only, with the permission of the Control Tech. When the caseload is heavy, students are expected to be actively involved in performing and assisting with the radiographic procedures. If time cannot be found to fill out image analysis during clinical hours, students should seek permission from the Clinical Coordinator to stay at the hospital after clinical time is finished.

### Test Outs

Test outs are designed to be performed in Semester II and Final Semester IV to check on the students' ability to perform exams on actual patients to demonstrate clinical competence.

- Students must demonstrate correct patient positioning and alignment of the x-ray tube with the part and IR.
- Students must demonstrate selection of correct technical factors.
- Students must demonstrate verifying a patient's identity.
- Students must demonstrate taking a patient's history.
- Students must demonstrate radiation protection.
- Program Director, Clinical Coordinator, or a designated radiographer will supervise the test outs.

### Clinical Evaluations

Clinical evaluations consist of bi-monthly and weekend performance evaluations. The students are responsible for assigning the evaluation to the technologist that they most closely worked with during that timeframe. The bi-monthly clinical evaluations assess the students' clinical performance in the following arenas: Diagnostic and Fluoroscopy, CT scanning, and Vascular/Interventional radiography.

### Significant Incident

Significant Incident/Concern Record forms are to be utilized by faculty and students to document any positive or negative educational experiences. These are discussed at the time of the occurrence and placed in the student's file. This form is also used to document or request scheduled or unscheduled time off.

### Self-Evaluations

Self-Evaluations forms are completed by students in Trajecsys during the semester midterm, or near the end of each academic semester.

Students complete the form prior to a scheduled advising session with the Program



Director. The form requires students to assess their current skills in various procedures, professional abilities, overall abilities, and recent progress. Students must establish at least one goal to be accomplished by the next advising session. This goal is set so that the student can strive to overcome any particular problem that they as well as the Program Director may perceive.

#### Student Clinical Performance Evaluation

Student Performance Clinical Evaluation Form is completed by the Clinical Preceptors and reviewed by the Clinical Coordinator and Program Director. These are summarized notes and comments that have been made by the evaluators throughout the semester. One is completed and discussed with the student each semester. This performance evaluation includes all aspects of the clinical experience.

### **Clinical Course Descriptions**

#### Clinical Education Semester I

Course Syllabus  
July – December

Students spend twenty-eight (28) hours each week in the clinical arena.

The students will experience two-week and weekend rotations consisting of the following hours:

0730 – 1600  
0800 – 1630  
0830 – 1700  
0900 – 1730

#### Course Description

This course provides the student with an overview of the foundations in radiography and its role in the healthcare delivery system. Students will be introduced to both Mills Health Center and Peninsula Medical Center, as well as ancillary departments. This course is designed to introduce the student to clinical education in the healthcare setting with emphasis on examinations performed in the radiology department. The student will be able to apply the knowledge they have been taught in the classroom in radiologic positions and radiographic procedures, radiation science, radiation protection, basic patient care procedures, and professional ethical concepts. Under direct supervision by a qualified radiographer, the student will perform radiographic examinations that have been taught in the classroom and laboratory setting. After the student has demonstrated competency, radiographic examinations (with the exception of mobile and surgical procedures) may be performed with indirect supervision.

#### Course Rationale

This course is an introduction to the profession of radiologic technology. Student radiographers will be involved in the art and science of radiologic technology. Students

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will be given the opportunity to perform radiographic procedures required for completion of the Program's required radiographic competencies.

### Course Objectives

Upon completion of this course, the student should be able to:

1. Understand clinical policies and procedures.
2. Transfer patients safely by demonstrating proper body mechanics and using patient transfer devices.
3. Implement various patient immobilization techniques.
4. Perform CPR.
5. Perform basic vital sign procedures (e.g., blood pressure, respiration, O<sub>2</sub> administration, etc.).
6. Demonstrate care of patient medical equipment (e.g., oxygen tank, IV tubing, drains, etc.)
7. Explain various medical-legal concepts regarding patients' rights (HIPPA), consent for care, and the radiograph as a legal document.
8. Perform various non-aseptic patient care techniques.
9. Understand and use universal precautions.
10. Display understanding of ethical/professional conduct, interpersonal relations, and cultural diversity.
11. Obtain patient clinical history.
12. Interpret requisition/physician order.
13. Accept constructive criticism and use it for self-improvement.
14. Practice the five fundamentals of service (acknowledge, introduce, explain, offer time expectation, and thank you).
15. Perform radiographic exams that have been taught in the classroom/laboratory setting.
16. Demonstrate proper positioning skills (routine projections and landmarks/baselines).
17. Demonstrate radiation protection by use of proper collimation, gonadal shielding, and correct technical factor selection.
18. Demonstrate correct technique selection, use of grids, use of lead markers, and proper use of radiographic equipment.
19. Understand the Picture Archiving Communications System (PACS).
20. Perform image evaluation including identification of anatomy demonstrated, identifying gross pathology, and be able to correct all factors affecting image quality.
21. Adjust to difficult/stressful situations.
22. Complete all clinical rotation objectives.
23. Complete all required clinical education hours.
24. Complete all required clinical competencies.

### Grading Procedure

Clinical grades are earned through several requirements.

- Clinical Competencies 30%
- Clinical Performance Evaluations 30%

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- Clinical Preceptor Evaluations 20%
- Case Studies 10%
- Record Keeping/Attendance 10%

### Clinical Education Semester II

#### Course Syllabus

January – June

Students spend twenty – eight (28) hours each week in the clinical arena. The students will experience two-week and weekend rotations consisting of the following hours:

0730 -1600  
0800 -1630  
0845 -1715  
0900 -1730

#### Course Description

This course is designed to provide the student with clinical experience in the radiology department.

The student will be able to apply the knowledge they have been taught in the classroom in radiologic positions and radiographic procedures, radiation science, radiation protection, basic patient care procedures, and professional ethical concepts. Under direct supervision by a qualified radiographer, the student will perform radiographic examinations that have been taught in the classroom and laboratory setting. After the student has demonstrated competency, radiographic examinations (with the exception of mobile and surgical procedures) may be performed with indirect supervision.

#### Rationale

As radiography is an applied science, clinical education provides the student with the opportunity to become proficient in technical areas corresponding to academic preparation.

#### Course Objectives

Upon completion of this course, the student shall be able to:

1. Display an empathetic awareness of ethical and professional conduct in interpersonal relations and cultural diversity.
2. Display knowledge of the growth and development stages of humans and demonstrate competency validation to assure safe and effective age-specific and culturally-sensitive patient care.
3. Display an increased awareness of radiation protection and safety.
4. Identify, assist, and/or perform basic routine radiographic procedures associated with the clinical assignment.
5. Perform bedside radiographic procedures under direct supervision.

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6. Set up for and perform radiographic examinations related to surgical procedures.
7. Communicate in a professional manner with physicians and staff to ensure optimum patient care.
8. Understand the importance of teamwork and develop the skills required to be a valuable member of the radiology department.
9. Display successful progress in the clinical evaluation program.
10. Complete all required clinical education hours.
11. Complete all required clinical competencies.

Grading Procedure

Clinical grades are earned through several requirements.

- Clinical Competencies 30%
- Clinical Performance Evaluations 30%
- Clinical Preceptor Evaluations 20%
- Case Studies 10%
- Record Keeping/Attendance 10%

Clinical Education Semester III

Course Syllabus

July – December

Students spend twenty-eight (28) hours each week in the clinical arena.

The students will experience two-week and weekend rotations consisting of the following hours:

- 0700 - 1530
- 0730 - 1600
- 0800 - 1630
- 0845 - 1715
- 1030 - 1900

Course Description

This course is designed to provide the student with clinical experience in the radiology department.

The student will be able to apply the knowledge they have been taught in the classroom in radiologic positions and radiographic procedures, radiation science, radiation protection, basic patient care procedures, and professional ethical concepts. Under direct supervision by a qualified radiographer, the student will perform radiographic examinations that have been taught in the classroom and laboratory setting. After the student has demonstrated competency, radiographic examinations (with the exception of mobile and surgical procedures) may be performed with indirect supervision.

Rationale

As radiography is an applied science, clinical education provides the student with the

opportunity to become proficient in technical areas corresponding to academic preparation.

### Course Objectives

Upon completion of this course, the student shall be able to:

1. Display an empathetic awareness of ethical and professional conduct in interpersonal relations and cultural diversity.
2. Conduct herself/himself in an ethical and professional manner in all clinical situations and relationships.
3. Display knowledge of the growth and development stages of humans and demonstrate competency validation to assure safe and effective age-specific and culturally-sensitive patient care.
4. Display an increased awareness of radiation protection and safety.
5. Identify, assist, and/or perform basic routine radiographic procedures associated with the clinical assignment.
6. Effectively perform exams and routines during evening rotations.
7. Perform basic CT procedures.
8. Communicate in a professional manner with physicians and staff to ensure optimum patient care.
9. Understand the importance of teamwork and develop the skills required to be a valuable member of the radiology department.
10. Display successful progress in the clinical evaluation program.
11. Complete all required clinical education hours.
12. Complete all required clinical competencies.

### Grading Procedure

Clinical grades are earned through several requirements.

- Clinical Competencies 30%
- Clinical Performance Evaluations 30%
- Clinical Preceptor Evaluations 20%
- Case Studies 10%
- Record Keeping/Attendance 10%

### Clinical Education Semester IV

#### Course Syllabus

January – June

Students spend twenty-eight (28) hours each week in the clinical arena.

The students will experience two-week and weekend rotations consisting of the following hours:

0500 - 1330  
0700 - 1530  
0730 - 1600

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0800 - 1630

1030 - 1900

### Course Description

This course is designed to provide advanced clinical experience in the radiology department with guided practice of special procedures, operating room, emergency room, mobile radiography, and CT scanning.

### Course Rationale

This course is designed to provide clinical experience in a radiology department with guided practice of special procedures (vascular/interventional), operating room, emergency room, mobile radiography, and CT scanning. As radiography is an applied science, clinical education provides the student with the opportunity to become proficient in technical areas corresponding to academic preparation.

### Course Objectives

Upon completion of this course, the student shall be able to:

1. Actively and effectively perform routine radiographic procedures associated with a specific clinical assignment.
2. Exercise independent judgment in the selection of technical factors for medical imaging procedures.
3. Effectively communicate with patients and staff.
4. Practice the 5 Fundamentals of Service (AIDET).
5. Competently perform a full range of radiologic procedures on children and adults in the following categories:
  - a. Head/neck
  - b. Abdomen/pelvis
  - c. Gastrointestinal & genitourinary
  - d. Musculoskeletal
  - e. Thoracic
  - f. Trauma
  - g. Mobile & surgery
  - h. CT scanning
6. Practice appropriate radiation protection/safety.
7. Use critical thinking skills to adjust technical factors and positioning skills while performing non-routine examinations due to trauma or patient condition.
8. Set-up and perform radiographic examinations related to surgical procedures.
9. Perform bedside/mobile radiographic procedures with direct supervision.
10. Perform basic CT procedures.
11. Perform venipuncture under direct supervision of the radiology nurse or radiologist.
12. Effectively assist in special procedures.
13. Demonstrate knowledge and skills relating to verbal, non-verbal, and written medical communication in patient care intervention and professional relationships.

14. Provide basic patient care and comfort.
15. Provide appropriate patient education.
16. Effectively perform exams during evening rotations.
17. Display successful progress in the clinical evaluation program.
18. Complete all required clinical education hours.
19. Complete all required clinical competencies.
20. Support the profession's code of ethics and comply with the profession's scope of practice.

#### Grading Procedure

Clinical grades are earned through several requirements.

- Clinical Competencies/Test Outs 30%
- Clinical Performance Evaluations 30%
- Clinical Preceptor Evaluations 20%
- Case Studies 10%
- Record Keeping/Attendance 10%

#### **Didactic Course Descriptions**

##### Didactic Course Descriptions: First Year

##### Introduction to Radiologic Technology and Lab

The first two-weeks of the program are designed to introduce the new student to the field of radiologic technology including the hospital and radiology departments. Topics will include:

- Hospital policies & organization
- Cultural diversity
- Interpersonal communications
- Medical ethics and professionalism
- Introduction to patient care
- Medicolegal considerations
- Organization and operation of the radiology department
- Radiation safety and protective measures
- Allied health professions
- Certification and licensing
- The American Registry of Radiologic Technologists
- The Joint Review Committee on Education in Radiologic Technology
- Professional development & career advancement
- Introduction to medical terminology
- Introduction to radiographic procedures
- Introduction to infection control
- Introduction to imaging equipment
- Introduction to radiographic positioning
- Mills-Peninsula Medical Center Standards of Care

### Medical Terminology

The purpose of this course is to provide review instruction in medical terminology and pathological terms related to specific body systems. The course uses lectures, discussions, demonstrations, student presentations, and independent study to develop knowledge and understanding of the professional language of medicine to communicate effectively with other members of the medical profession.

### Part 1: Patient Care and Lab

The primary purpose of this course is to introduce the student radiographer to the patient care techniques used in the general care of the patient with the emphasis on the role of the radiographer. The major portion of this course will deal with ethical conduct, medical legal responsibilities, attitudes, and communication with the patient.

Incorporated into the course, the student will become familiar with the following subjects:

- Communication skills
- Body mechanics
- Evaluation of patient needs
- Infection control
- Medical/surgical asepsis
- Emergency medications
- Contrast media reactions
- Patient preparation for radiographic examinations

### Part 2: Patient Care - Pediatric and Geriatric Radiology and Lab

This course involves the psychological, physical, and emotional aspects of pediatric and geriatric radiography. The course is designed to familiarize the student with age-specific characteristics from the neonate to the geriatric patient. In part one, Pediatrics, topics that are covered include:

- The Bill of Rights for Children and Teens
- Approaching patients with special needs
- Suspected child abuse

The student is familiarized with the newborn nursery with instruction by the course instructor and nursery staff to aid in performing portable examinations. Course emphasis is placed on the following topics:

- Equipment
- Immobilization techniques
- Surgical aspects of pediatrics
- Technical factors
- Radiation protection
- Specialized studies unique to the pediatric patient.

In part two, Geriatrics, the student is familiarized with the specific problems of the aging. Topics that are covered include:

- Demographics and social effects of aging



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- Physical, cognitive, and psychological effect of aging
- Patient care of the elderly

### Radiographic Science I: Fundamentals of Radiographic Science

This course is designed to establish a basic knowledge of atomic structure and terminology. Also presented are the nature and characteristics of ionizing radiation, x-ray production, and the fundamentals of photon interactions with matter. It is also designed to establish a knowledge base in factors that govern and influence the production and recording of radiologic images.

### Fluoroscopic and Radiologic Science Review

The primary objective of this course is to teach the student routine diagnostic fluoroscopic procedures and special fluoroscopic procedures performed in the Radiology Department as well as the theories, concepts, and factors that influence the employment of fluoroscopic examinations and the equipment utilized. Specific radiographic positioning, aspects of patient care, and nursing skills essential to these procedures will be discussed. Additional topics covered will include contrast materials, radiation protection, image intensification, fluoroscopic imaging, and recording devices. The course incorporates lectures, demonstrations, and positioning practicums to meet the objectives of the course.

### Anatomy I

This course is designed to present a basic review of the different body systems and the basic principles associated with the structure and function of the human body.

### Radiographic Physics and Lab

The student is introduced to the fundamentals of electrical and radiation physics, and the basic principles underlying the operation of x-ray equipment including:

- Structure of matter
- Electrodynamics
- Generators/motors
- Physical concepts of energy
- Static electricity
- Electromagnetism
- Magnetism
- X-ray tubes and circuits

Lectures, demonstrations, lab experiments, and a field trip are used to teach these principles.

### Radiation Biology/Radiation Protection

Content is designed to provide an overview of the principles of the interaction of ionizing radiation with living systems and its effects on the body (i.e., molecules, cells, tissues, and organs). Factors affecting biological response are presented, including acute and chronic effects of ionizing radiation. In addition, an overview of the principles of radiation

protection, including the responsibilities of the radiographer, for patients, and the general public will be covered. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies, and health care organizations are incorporated. Lecture, demonstrations, and student presentations will be utilized in the course.

#### Radiographic Procedures: Skeletal Positioning and Lab

This course is designed to introduce the student to radiographic positioning, primarily of the skeletal system. Course time will incorporate lectures, demonstrations, image analysis, as well as positioning practicums in which the student will have the opportunity to demonstrate necessary positioning skills, equipment manipulation, radiation protection, and selection of technical factors. These skills are important in preparing the student in achieving didactic and clinical competency.

#### Surgery and Mobile Radiography and Lab

This course is designed to familiarize the student with the various mobile (portable) radiographic units that are used. The use of each unit involving positioning and technical skills required for bedside and surgical radiography is taught. Students will be introduced to the many different types of tubes/catheters that are used for treatment and their proper placement in the body. Also included in this course is the use of digital fluoroscopic C-arm units, including set-up, recording the image, image manipulation, and photography. The student will also be instructed on the use of the automatic contrast injector. The student will learn proper surgical attire, sterile technique, and sterile fields. Lectures, as well as direct demonstration and practice by the student, will be used.

#### Didactic Course Descriptions: Second Year

##### Radiographic Science II: Image Production and Evaluation and Lab

This course is taught in the second year of the program. With the knowledge that the student gained from the first segment of the course (Radiographic Science I), the student will continue sequencing the topics from the production of x-rays through to the final radiographic image. Part I of this course will focus on Digital Radiography/PACS. Content is designed to impart an understanding of the components, principles, and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within a digital system. Principles of digital system quality assurance and maintenance are presented. Lecture, laboratory assignments, and discussions will be the methods used for instruction.

##### Anatomy II

##### Neuroanatomy

This course is designed to provide the student with an advanced understanding of the bony calvarium, central nervous system, peripheral nervous system, and the sensory organs. Lecture and reading assignments will be used as methods of instruction.

### Cross-Sectional Anatomy

This course is designed to familiarize the student with the anatomy as seen with multiple imaging modalities. The student will be able to utilize this information and apply it to imaging modalities such as CT and MRI. Lecture, image analysis, and reading assignments will be included as methods of instruction.

### Radiographic Pathology

The purpose of this course is to give the student a basic understanding of the principles of pathology and its appearance on the radiographic image and how disease affects radiographic technical factor selection. Information is discussed as to the effect that a particular condition or disease may have on the approach that a radiographer should take when imaging patients.

### Digital Radiography / PACS & Lab

The purpose of this course is to give the student an understanding of the components, principles, and operation of digital imaging systems found in diagnostic radiology.

### Ethical and Legal Issues for Imaging Professionals

The purpose of this course is to give the student a basic understanding of the ethical and legal issues that imaging professionals face. Topics include:

- Ethical and legal theories and models
- Principles of beneficence and nonmaleficence
- Patient autonomy and informed consent
- Caring and Communication
- Truthfulness and confidentiality
- Cultural Diversity

### Principles of Computed Tomography

This course begins with an introduction to computer literacy, digital imaging, computers in radiology, and the historical developments of computed tomography. The student is instructed on the theory, operation, and application of computed tomography. Examination protocols, radiation dosimetry, contrast media preparation, image manipulation, image storage and archiving, and patient care procedures will be discussed. This course has been approved by the ARRT for thirty-three (33) continuing education hours.

### Radiographic Procedures II: Positioning of the Spinal Column and Headwork and Lab

In Part One, Positioning of the Spinal Column, students are instructed in the anatomy and pathology of the spinal column. This course also covers trauma and routine radiographic examinations of the spinal column. In Part Two, Headwork, students are instructed in the anatomy and positioning of the cranium and facial bones. This course covers trauma and routine radiographic examinations of the facial bones and cranium and how to perform them. Topics that will be covered include:

- Positioning
- Technical factors
- Anatomy

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- Care of trauma patients

Lectures, demonstrations, image analysis, and laboratory practicums will be the methods of instruction used.

### Radiation Safety Course Review (Previously Fluoroscopy Course)

This course is designed to teach and review the principles of image intensification, recording devices, appropriate radiation protection, pertaining to the conduct of fluoroscopic examinations, anatomy and physiology of the eye, illumination and photometry, quality control and assurance testing of equipment, and biological effects of ionizing radiation. Lecture and laboratory experiments will be used as methods of instruction.

### Venipuncture

Course content is designed to meet the requirements of California Health and Safety Code Section 106985(b) for the radiologic technologist in venipuncture and administration of contrast materials in the upper extremity. The course consists of (ten) 10 hours of instruction in the following areas:

- Anatomy and physiology of venipuncture sites
- Venipuncture instruments, intravenous solutions, and related equipment
- Puncture techniques
- Techniques of intravenous line establishment
- Hazards and complications of venipuncture
- Post-puncture care
- Composition and purpose of antianaphylaxis tray
- First aid
- Types of contrast media
- Allergic reactions
- Patient care
- Informed consent

Students must perform two(2) supervised venipuncture sticks during the 10-hour course with the completion of a total of ten(10) venipunctures. All venipunctures must be done with direct supervision by either a radiologist or a radiology nurse. Upon completion of ten (10) supervised venipuncture sticks, students will be awarded a certificate of completion.

### Independent Study

This course is designed to develop the critical thinking skills of the student radiographer—the ability to perceive, gather, organize, analyze, and present information in a well-written, concise research paper. The student will select a topic relating to the field of radiology and medical imaging.

### Registry Seminars

This course enables the student to direct study efforts toward exam related material

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prior to taking the registry examination. The following coursework will be reviewed:

- General Radiographic Procedures and Anatomy
- Patient Care and Medical Ethics
- Radiographic Science: Image Production and Evaluation
- Equipment Operation and Maintenance
- Radiation Biology/Radiation Protection

Discussion, review, and mock examinations will be used to help prepare the student for the registry examination.

### Forms

The program utilizes the following forms in Trajecsyst for documentation and evaluative purposes. These forms are reviewed at the start of the program as well as during the program.

- Mandatory and Elective Competency Form
- Two-week & weekend Clinical Evaluation.
- Repeat Analysis Form
- Clinical Test-Out Form
- Student Clinical Performance Evaluation
- Self-Evaluation Form
- Significant Incident/Concern Form
- Teck Check Form
- Clinical Competency Form (individual exams)
- Digital Clinical Objective Form
- Fluoroscopy Clinical Objective Form
- Surgical C-Arm Objectives
- Mobile Unit Objectives
- CT Clinical Objective Form
- Handbook Sign-off
- ARRT Code of Ethics Sign-off
- JRCERT Sign-off
- MRI Screening & Safety Sign-off
- Textbook List Sign-off
- Radiology Department Safety Checklist & Sign-off
- Clinical Site Student Evaluations
- Clinical Preceptor Student Evaluations
- Didactic Instructor Student Evaluations
- ADA, Non Discrimination, and Physical Requirements