



ANTELOPE VALLEY COLLEGE

Radiologic Technology Program

Clinical Handbook

Table of Contents

CLINICAL EXPERIENCE	3
INTRODUCTION	3
CLINICAL EDUCATION HOURS (PRACTICUM)	3
CLINICAL AFFILIATED SITE ORIENTATION.....	4
RADIATION MONITORING.....	4
ANATOMIC SIDE MARKERS.....	4
CONFIDENTIAL INFORMATION	4
RADIOLOGY LABORATORY SAFETY RULES.....	5
SUPERVISION OF STUDENTS	5
CLINICAL COMPETENCIES AND REQUIREMENTS.....	5
DOCUMENTATION OF CLINICAL EXPERIENCE	6
GENERAL PROCEDURE FOR COMPETENCY EVALUATIONS	6
CRITERIA FOR COMPETENCY EVALUATION	8
CLINICAL EVALUATION	9
COMPETENCY AND CLINICAL EVALUATION DUE PROCESS POLICY	9

CLINICAL EXPERIENCE

INTRODUCTION

The Clinical Handbook has been developed to supplement the Policy Handbook and assist Radiologic Technology students in understanding the rules and regulations that will apply during their practicum (clinical education) assignments. Students will be required to adjust their personal and work schedules in order to comply with program standards and schedules. Clinical hours will not be adjusted for outside work schedules. The Radiologic Technology program will be very busy and demanding, but very rewarding. Success is expected.

CLINICAL EDUCATION HOURS (PRACTICUM)

Clinical education hours will vary according to the class schedules and availability of clinical education settings. STUDENTS ARE REQUIRED to make themselves aware of the assigned hours and adjust personal and work schedules to coincide with their clinical schedule, as posted by the Program Director. Attendance policies are defined in the Policy Handbook. **No more than a total of forty hours of clinical and didactic education combined per week and no more than ten clinical hours per day will be scheduled.**

1. No student is to have clinical experience in the clinical education setting without the prior written approval of the Program Director. The student is not to return to or remain in the clinical area for experience outside the assigned clinical hours.
2. Evening and/or weekend hours may be required of all students in the clinical area.
3. A current American Heart CPR Card (BCLS) is required when working in the hospital. American Red Cross CPR Card is not acceptable.
4. Students are counseled regarding clinical performance. They are given specific criteria on what areas they must improve. Clinical goals are established with specific time frames in which they are to be met.
5. Students should not bring any electronic portable devices to clinical. Students may give the clinical department phone number to emergency contacts for **emergency** use only. If a cell phone must be available to the student for emergency purposes, they should remain off while participating in clinical activities and may be used only during schedule breaks in designated areas of the hospital/clinic.
6. Students must be in complete uniform as described in the Program Handbook while at the clinical site, laboratory classes or fieldtrips. Failure to wear the AVC uniform is a breach of the dress code. Any student who is found to be out of compliance with the dress code will be dismissed from clinical/laboratory/fieldtrip until the student can satisfactorily maintain uniform compliance.

CLINICAL AFFILIATED SITE ORIENTATION

Students in Clinical Practicum are required by the clinical site to complete an orientation to the facility. These orientations may be held at the clinical site and at the discretion of the facility. Orientation meetings and/or materials are provided by the clinical site and may include a “live” orientation or self-study orientation material. Students will complete the clinical site orientation prior to the first clinical assignment. Students will be notified and assigned to a clinical site orientation by the Program Director or the Clinical Instructor.

RADIATION MONITORING

Students must wear personal dosimeters (radiation monitors) to monitor radiation doses. Students will ALWAYS wear the radiation-monitoring badge while in clinical practicum. Students are responsible for exchanging dosimeter badges at the beginning of each month. Failure to exchange the badge by the 10th of the month will affect clinical grades and incur a \$35 fee. The fee will be applied to your school account. In addition, failure to wear the dosimeter badge or exchange the badge at the beginning of each month will result in the student being dismissed from clinical practicum until the badge is secured or exchanged.

Records of the monthly radiation exposure will be kept in the Program Director’s office. It is the students’ responsibility to review the report. The program director and/or RSO will monitor the report of excessive dosage and counsel any student who receives such a dose. In addition, the student may be required to provide a written account of any excessive dosage received to the dosimeter badge.

Tampering with one’s own or another person’s dosimeter badge is an ethical and practice violation and will result in disciplinary action up to and including dismissal from the program. In addition, a notification will be made to the State of California, Radiologic Health Branch and the American Registry of Radiologic Technologists ethics committee.

For additional information please refer to the Radiation Protection policy.

ANATOMIC SIDE MARKERS

Students will supply and use their own-initialed right and left anatomic markers to properly identify the radiographic procedures they perform. AVC recommends that students always keep a second (full set) of markers in case one or both in a set are lost. A student without markers in clinical education is out of dress code. The use of another person’s or non- personalized anatomic side identification markers is forbidden. Students who arrive to clinical without their initialed anatomic side markers will be considered out of uniform and will be dismissed from clinical until their initialed anatomic side markers are obtained.

CONFIDENTIAL INFORMATION

All clinical affiliate patient records are confidential in nature. Requests for information concerning a patient should be referred to the clinical instructor or designate. The students are expected to maintain absolute confidentiality of all data involving the patient and the practicum affiliate. Use of confidential information for any purposes other than patient care and/or education constitutes Breach of Patient Confidentiality. Any Breach of Patient Confidentiality will result in disciplinary action up to and including dismissal

from the program. All students will attend HIPPA training prior to starting clinical rotations.

RADIOLOGY LABORATORY SAFETY RULES

1. Radiation monitoring device must be worn at all times while in the radiology department or laboratory at collar level outside the lead apron.
2. X-rays will be made only of the x-ray phantom, and at no time will they be made on fellow students or other persons.
3. All persons must be behind protective walls or outside the room during an exposure.
4. The door must be closed whenever an exposure is made.
5. Proper collimation must be used at all times.
6. Proper exposure factors and image receptor size should be used at all times.
7. In case of equipment failure notify the lab or clinical instructor immediately.
8. Use of x-ray or control room allowed only under direct supervision of a qualified practitioner (CRT or ARRT technologist).
9. In case of fire turn power off, leave room immediately and notify proper authorities.
10. Authorized personnel only will use and/or work on machines.
11. Instructor or Program Director must be informed immediately if any infraction of the above rules occurs. Failure to do so will result in disciplinary action up to and including dismissal from the program.

SUPERVISION OF STUDENTS

Direct supervision – a Registered Technologist (CRT /ARRT) must be present in the room directly observing the students actions.

Indirect supervision – a Registered Technologist (CRT /ARRT) must be immediately available to the student within the same building, i.e. the adjacent room.

First year students (students enrolled prior to RADT201) will be under **direct supervision** during the performance of any examinations or exposures, regardless of competency status.

Second year students (enrolled during RADT201 or beyond) will be under indirect supervision, **except** during repeat exposures, operating room assignments, procedures in which the student has not passed ARRT Competency or at the direction of the supervising technologist and/or clinical instructor.

NOTE: While under indirect or direct supervision within any category all repeat procedures MUST be accomplished under the direct supervision of the Clinical Instructor or Registered Technologist and logged on the Repeat Log sheet in radiology department. Retakes must be log right after the retake is taken. (Binder in kept in radiology department at all times)

CLINICAL COMPETENCIES AND REQUIREMENTS

Each student shall perform or assist in the performance of not less than the following

number of radiographic procedures throughout his or her clinical experience in the program:

Procedures	Number
(1) Chest	200
(2) Bony skeleton	400
(3) Gastrointestinal and genitourinary	200
(4) Vascular and contrast studies	50
(5) Special studies and X-ray imaging modalities	50
(6) Bedside	50
(7) Surgical	50

The above procedures and totals are required in order to graduate from the program. Students will document performance of radiographic procedures on the Procedures Log to demonstrate compliance throughout the program. Students are encouraged to take every opportunity to practice skills and procedures. These procedures **MUST** be documented and verified in order to count towards the totals above.

DOCUMENTATION OF CLINICAL EXPERIENCE

All students will document clinical experiences on the appropriate clinical log forms. Each log entry must be initialed by the qualified practitioner that directly/indirectly supervised or observed the student. The following forms are approved by the Radiologic Health Branch to be used for documentation of clinical experience. No other forms will be accepted:

- Clinical observation log– for observations only, the student did not perform or participate in the performance of the examination
- Procedure logs- live examinations in which the student performed or assisted in performing the procedure
- Repeat log- examinations in which the student repeated an image
- Venipuncture log- live venipuncture performance (minimum of 10 required on live humans)

Copies of blank logs are located on the colleges online content management system for each clinical course. Students are responsible to bring their own copies of forms into clinical. Students are not allowed to make copies at the clinical sites. Students are also responsible to make and maintain copies of all completed forms for their own records. Forms must be filled out in their entirety before a student will receive credit. The program keeps students records for five years after graduation, dismissal or withdrawal from the program. It is also recommended that students keep their own copies of all program records for at least five years after graduation.

GENERAL PROCEDURE FOR COMPETENCY EVALUATIONS

Students will document completion of clinical competencies required by the American Registry of Radiologic Technologists (ARRT). Copies of demonstration and competency forms are located on the colleges online content management system for each clinical course. Students are responsible to bring their own copies of forms into lab/clinical. Students are not allowed to make copies at the clinical sites. Students are also responsible to make and maintain copies of all completed forms for their own records. Forms must be filled out in their entirety before a student will receive credit.

The following procedures will be used to demonstrate competency for each procedure listed in the course syllabus for each clinical course.

1. In the classroom (didactic) section for each clinical course (refer to course syllabus) students will attend a laboratory demonstration for each procedure listed in each category.
2. Students will then be required to demonstrate basic competency of the procedure to the instructor on the demonstration form.
3. Once a student achieves basic competency, a student is then required to complete a number of practices, either "live" or simulated in the category. The number of practices may be assigned or the student may proceed with practices until he/she feels confident in performance of the procedure. These practices must be directly observed and verified by initialing on the procedures log by a technologist or clinical instructor.
4. Once practices have been completed, at the discretion of the Clinical Instructor, a student may proceed with competency performance for that procedure. Only qualified practitioner may observe (directly) and evaluate the competency for a student.
5. The Clinical Instructor will determine the "readiness" of a student to proceed with the Competency. If a student is not progressing as expected, the Clinical Instructor may, at his/her discretion, assign more practices to a student.
6. If a student achieves below 75% for any competency, the clinical instructor will assign additional practices. After the assigned practices are complete the student must then re- demonstrate (simulated) to the clinical instructor before attempting competency again. If the student fails the same competency a second time, s/he will be referred to the Program Director for remediation counseling and a determination will be made concerning the students continuance in the program.
7. Any student who has failed three competencies on the first attempt will be referred to the Program Director for remediation counseling and a determination will be made concerning the students continuance in the program.
8. Successful completion of an evaluation satisfies the skill requirement in that category. However, students are expected to maintain adequate performance standards throughout the program and will be continually re-evaluated on an informal basis.
9. A minimum number of competencies will be assignment each clinical course as a part of the course objectives to ensure minimal clinical progression of the student (refer to the course syllabus) throughout the program. However, a student may perform more than the required number of competencies for each clinical course if she or he is ready.

CRITERIA FOR COMPETENCY EVALUATION

POSITIONING EVALUATION- Student demonstrates the below standards during the actual performance of the procedure.

IMAGE CRITIQUE: Student demonstrates a critique of the below standards from radiographs of the procedure.

Approach to patient

- Identification of patients name and DOB
- Identification and verification (chart or prescription) of procedure(s) to be performed
- Asks patient for clinical history appropriate for examination.
- Verification if patient is properly prepared for examination
- Identify that there are no contraindications for performing procedure
- Maintain patient dignity and modesty through proper gowning and covering for the patient
- Selects appropriate patient transport
- Speak to patient in a concerned and professional manner
- Provide appropriate and clear instructions to patient

Room Preparation

- Identify that equipment is operational
- Provide a clean and orderly work area
- Obtain appropriate supplies for examination
- Select appropriate IR (type, size and orientation) grids, beam restrictors, etc

Proper technique

- Appropriate selection of technical factors -Measures patient
- Refers to technique chart/APR
- Appropriate compensations for patient size, age, condition and pathology
- Selects correct image receptor, grid, SID, OID, focal spot for adequate detail

Radiation protection

- Pregnancy evaluation if applicable
- Optimum kVp
- Use of gonadal shielding
- Use of lead apron, gloves and blockers
- Appropriate exposure factors (ALARA), see proper technique also
- No repeats

Patient positioning

- Transportation of patient on and off table
- Apply universal precautions as appropriate
- Position patient with consideration of patient care
- Provide proper patient instructions for moving, positioning and breathing
- Check patient condition at regular intervals
- Proper maneuvering of x-ray tube/table/IR utilizing appropriate controls and locks
- Determine appropriate image receptor placement (table top/bucky)
- Anatomy demonstrated on radiograph in appropriate position or projection
- Perform procedure/s in logical sequence in consideration of patient care
- Perform examination in a reasonable period of time consistent with patient care

Central ray

- Correct centering to the area of clinical interest
- Tube and Part centering to IR
- Correct central ray (tube) angle

Collimation

- Evidence of collimation
- Collimation to the area of clinical interest
- Collimation to the size of the film or smaller

Anatomic markers

- Appropriate use of markers as demonstrated on image at the time of exposure
- Does not interfere with anatomy demonstrated

Student can identify radiographic anatomy

- Identification of anatomical structures
- Identification of technical factors effecting demonstration of anatomy

Paper work is completed correctly

- Properly complete all logs and forms
- Properly complete patient record in chart/radiology information system/PACS

CLINICAL EVALUATION

Students will have one or more clinical evaluations performed by the Clinical Instructor or Program Director for each clinical course (RADT103, 106, 107, 201, 202, 205, 207). Students must pass each clinical evaluation with 75% or better in order to pass the course and proceed in the program.

The criterion for the Clinical Evaluation is posted in the course syllabus for each clinical course and includes the following:

1. Minimum number of required clinical hours attended
2. Minimum number of simulated demonstrations
3. Minimum number of ARRT (elective or mandatory) competencies completed
4. Minimum number of image evaluations
5. Minimum number of State required procedures completed
6. Minimum number of technologist evaluations completed
7. Clinical Instructor evaluation of student's progress

COMPETENCY AND CLINICAL EVALUATION DUE PROCESS POLICY

In the event an unfavorable evaluation is received and disputed, the following procedure shall be followed:

1. The student shall first discuss with the Clinical Instructor the reasons for the dispute.
2. If the student does not feel the issue has been resolved, the student shall meet with the Program Director.
3. The Program Director shall meet with the Clinical Instructor if warranted to discuss the evaluation.
4. The student, Program Director and Clinical Instructor shall jointly review the evaluation.
5. After discussion, the student may request that the Clinical Instructor and Program Director jointly perform a re-evaluation.
6. In the event of a re-evaluation, that evaluation will supersede the original.

All evaluations and re-evaluations will become part of the student's clinical record.