

TITLE 17. PUBLIC HEALTH
DIVISION 1. STATE DEPARTMENT OF HEALTH SERVICES
CHAPTER 5. SANITATION (ENVIRONMENTAL)
SUBCHAPTER 4.5. RADIOLOGIC TECHNOLOGY
GROUP 2. TRAINING OF STUDENTS OF RADIOLOGIC TECHNOLOGY
ARTICLE 2. RADIOLOGIC TECHNOLOGY SCHOOLS-PROGRAMS
§ 30422. ~~Therapeutic Radiologic Technology Schools.~~
Radiation Therapy Programs.

Proposed revisions to current regulations are in italics and strike through (17 CCR § 30422); Note all change justifications are in the attached Proposed Provision Change Justification for Cal. Admin. Code tit. 17, § 30422.

§ 30422. ~~**Therapeutic Radiologic Technology Schools.**~~
Radiation Therapy Programs.

- ~~(a) In order to be approved by the Department as a therapeutic radiology technology school, a training facility shall include in its curriculum all requirements of subsections (b) through (g), inclusive, of this section.~~
- (a) *In order to be approved by the Department as a radiation therapy educational program, an educational facility shall include in its curriculum all requirements of subsections (b) through (g), inclusive, of this section. master plan of education all the following educational standard requirements of subsections (b) through (k), inclusive, of this section.*
- ~~(b) The course of study shall meet at least all of the following:~~
- ~~(1) 455 hours of formal classroom instruction.~~
 - ~~(2) 15 hours of general radiographic laboratory.~~
 - ~~(3) 60 hours of physics and radiation protection laboratory.~~
 - ~~(4) 75 hours of radiotherapy laboratory.~~
 - ~~(5) 1500 hours of supervised clinical education.~~
- (b) *Standard One - Program Mission, Goals, Student Learning Outcomes and Effectiveness: In support of **Standard One**, the program:*
- (1) *Shall have a mission statement that defines its purpose and scope.*
 - (2) *Shall have written goals that outline what the program is designed to achieve.*
 - (3) *Shall make its mission statement and goals readily available to students, faculty, administrators, and the general public.*
 - (4) *Shall develop and implement an assessment plan that identifies benchmarks for the measurement of outcomes in relation to its mission statement and goals to include the following.*
 - (A) *Student Learning Outcomes:*
 - Communication skills;*
 - Problem solving skills and critical thinking;*
 - Clinical performance and clinical competence;*
 - Professional development and growth.*

- (B) *Program Outcomes:*
Graduate satisfaction;
Employer satisfaction;
Program completion rate.

(5) *Shall monitor program effectiveness by monitoring and documenting outcomes consistent with each of the following policies.*

- (A) *Over the past five years, credentialing examination pass rate average of not less than 75% at first attempt; and*

- (B) *Over the past five years, job placement rate of not less than 75% within six months of graduation.*

(6) *Shall regularly solicit feedback from students, faculty, radiation oncologists, graduates, employers, and other communities of interest.*

(7) *Shall analyze and use feedback from communities of interest and outcome data for continuous improvement of its policies, procedures, and educational offerings.*

(8) *Shall periodically evaluate its mission statement, goals, and assessment plan and makes revisions as necessary to achieve continuous quality improvement.*

~~(e) The classroom instruction shall include at least the following:~~

Subject	Hours of Instruction
(1) Radiation protection pertaining to radiation therapy	50
(2) Introduction and orientation	5
(3) Professional ethics	5
(4) Anatomy and physiology	50
(5) Medical terminology	10
(6) Physics of radiation therapy	85
(7) Mathematics	15
(8) Pathology	25
(9) Nursing procedures	25
(10) Radiobiology ad chemotherapy	25
(11) Principles of radiation therapy	25
(12) Technical radiation therapy and treatment planning	55
(13) Intracavitary and interstitial therapy	25
(14) Principles of radiography	35
(15) Senior student seminar	20

~~(d) In the general radiographic laboratory each student shall perform experiments, using phantoms, to illustrate the following:~~

- ~~(1) X-ray output (effects of kilovoltage, milliamperage, filtration, distance).~~
- ~~(2) Radiographic contrast (kilovoltage, filtration, scatter, film type, exposure, processing).~~
- ~~(3) Control of scatter (collimation, grids).~~
- ~~(4) Intensifying screens (type, screen-film contact, cassette).~~
- ~~(5) Sharpness (penumbra, inverse square law, source and phantom-film distance, size of the focal spot, motion, magnification and distortion).~~

~~(e) In the physics and radiation protection laboratory each student shall perform experiments that will illustrate at least all of the following:~~

- ~~(1) Method of reducing dose to the patient (shutters, cones, collimators, filters, optimum exposure techniques, optimum film and screen use, gonadal shielding, source-film distance).~~
- ~~(2) Reduction of dose to personnel (shielding of the X-ray tube and treatment room, protection against secondary radiation, monitoring, protective clothing).~~
- ~~(3) Quality control procedures:~~
 - ~~(A) Identification of parts of basic therapy equipment.~~

- ~~(B) Functions of various types of therapy equipment.~~
- ~~(C) Methods of calculating dosage throughout the irradiated area.~~
- ~~(D) Use of computer in treatment planning.~~
- ~~(E) Calibration of therapy equipment and use of ionization chambers.~~
- ~~(F) Care and safe operation of equipment (testing for safety, interlocks, shutters, communication and viewing systems, erratic operation of machinery, daily inspection and routine maintenance, emergency procedures).~~
- ~~(G) Handling of radioactive materials (use of radiation measuring devices, area surveys, wipe and leak tests, storage and disposal, emergency decontamination)~~

~~(f) In the radiotherapy procedures laboratory each student shall:~~

- ~~(1) Manipulate treatment and simulator units.~~
- ~~(2) Operate darkroom equipment and accessories, including automatic processor.~~
- ~~(3) On simulated patients and phantoms, position and select exposure factors for routine location procedures such as chest, abdomen, head and neck and pelvis.~~
- ~~(4) Position simulated patients and phantoms for treatment of chest, pelvis and abdomen.~~

~~(g) During the supervised clinical education each student shall perform or assist in performing radiation therapy procedures involving the following:~~

- ~~(1) Head and neck.~~
- ~~(2) Central nervous system.~~
- ~~(3) Respiratory system.~~
- ~~(4) Digestive system.~~
- ~~(5) Reproductive system.~~
- ~~(6) Urinary system.~~
- ~~(7) Endocrine system.~~
- ~~(8) Circulatory system.~~
- ~~(9) Reticulo-endothelial system~~
- ~~(10) Skin.~~
- ~~(11) Soft tissue.~~
- ~~(12) Pediatric.~~
- ~~(13) Metastases.~~

~~(c) Standard Two – Curriculum: (replaces c, d, e, f, and g of 30422)~~

~~In support of **Standard Two**, the program:~~

- ~~(1) Shall follow the American Society of Radiologic Technologists (ASRT) Radiation Therapy Curriculum guide that prepares the student to practice in the professional discipline.~~
- ~~(2) Shall provide a curriculum that promotes professional values, life-long learning, and competency in critical thinking and problem solving skills.~~
- ~~(3) Shall develop a curriculum that reflects assessment of affective, cognitive, and psychomotor domains.~~
- ~~(4) Shall provide a well-structured, competency based curriculum that follows the ARRT clinical education requirements that supports the program's mission and goals.~~
- ~~(5) Shall document a minimum of 1,500 student clinical education hours at approved affiliated clinical sites where students are able to complete ARRT competencies.~~
- ~~(6) Shall provide learning opportunities in current and developing therapeutic technologies.~~
- ~~(7) Shall provide equitable learning opportunities.~~

(d) **Standard Three – Faculty Qualifications and Responsibilities:**
In support of **Standard Three**, the program:

(1) Shall document that all faculty and staff possess academic and professional qualifications appropriate for their assignments.

(A) Full-Time Program Director:

Holds, at a minimum, a masters degree or be enrolled in an appropriate educational course of study and will be completed within one year;
Is proficient in curriculum design, program administration, evaluation, instruction, and counseling;
Documents the equivalent of three years full-time experience in radiation therapy;
Documents two years experience as an instructor in an accredited program;
Holds an American Registry of Radiologic Technologists certification and registration in radiation therapy/ARRT(T);
Holds a valid California radiation therapy certificate/CRT(T) .

(B) Full-Time Equivalent Clinical Coordinator:

Holds, at a minimum, a baccalaureate degree;
Is proficient in curriculum development, supervision, instruction, evaluation, and counseling;
Documents the equivalent of two years full-time experience in radiation therapy;
Documents a minimum of one year of experience as an instructor in an accredited program;
Holds an American Registry of Radiologic Technologists certification and registration in radiation therapy/ARRT(T);
Holds a valid California radiation therapy certificate/CRT(T).

(C) Clinical Supervisor:

Is proficient in supervision, instruction, and evaluation;
Documents the equivalent of two years full-time experience in radiation therapy;
Holds American Registry of Radiologic Technologists certification and registration in radiation therapy/ARRT(T);
Holds a valid California radiation therapy certificate/CRT(T).

(D) Clinical Instructors :

Hold an American Registry of Radiologic Technologists certification and registration in radiation therapy/ARRT(T);
Holds a valid California radiation therapy certificate/CRT(T).

(E) Didactic Program Faculty:

Is qualified to teach the subject;
Is knowledgeable of course development, instruction, evaluation, and academic counseling;
Holds appropriate professional credentials, if applicable.

(F) Medical Advisor (optional)

Radiation Oncologist certified by the American Board of Radiology

- (2) *Shall document administrative, faculty, and clinical staff responsibilities are delineated and support the fulfillment of the program's mission and goals.*

(A) Program Director:

*Organizes, administers reviews, develops, and assures program efficacy;
Conducts on-going program assessment;
Participates in budget planning;
Evaluates and assures clinical education efficacy;
Maintains current knowledge of the professional discipline and educational methodologies through continuing professional development;
Assumes the leadership role in the continued development of the program.*

(B) Clinical Coordinator:

*Correlates clinical education with didactic education;
Evaluates students;
Coordinates clinical education and evaluates its efficacy;
Cooperates with the Program Director in periodic review and revision of clinical course materials;
Maintains current knowledge of the professional discipline and educational methodologies through continuing professional development;
Maintains current knowledge of program policies, procedures, and student progress.*

(C) Radiation Therapy Clinical Supervisor/s:

*Is knowledgeable of program goals;
Understands the clinical objectives and clinical evaluation system;
Provides students with clinical instruction/supervision;
Evaluates students' clinical competence;
Maintains competency in the professional discipline and with instructional and evaluative techniques through continuing professional development;
Maintains current knowledge of program policies, procedures, and student progression.*

(D) Clinical Instructors:

*Familiar with the clinical competency system;
Supports and assists in the educational process;
Evaluates students' clinical competence
Maintains direct supervision of students
Maintains current knowledge of program policies, procedures, and student progression.*

(E) Didactic Faculty:

*Prepare and maintain course outlines and objectives, instruct and evaluate students, and report progress;
Cooperate with the Program Director in periodic review and revision of course materials;
Maintain appropriate expertise and competencies through continuing professional development.*

(F) Medical Advisor: (optional)

*Consults with Program Director in the program's planning, curriculum development, and instruction as needed;
Participates as a guest lecturer as requested.*

- (3) *Shall provide an adequate number of faculty to meet all educational, program, administrative, and accreditation requirements.*

- (4) *Shall provide support services to meet all educational, program, and administrative requirements.*

- (5) *Shall provide faculty with opportunities for continued professional development.*
 - (6) *Shall evaluate didactic and clinical faculty performance regularly to assure instructional responsibilities are performed.*
- (e) **Standard Four – Administrative Organization:**
*In support of **Standard Four**, the program:*
- (1) *Shall have organizational and administrative structures that support the program's mission and student learning outcomes.*
 - (2) *Shall maintain Department/RHB correspondence, directives, memos, rules, general orders student records of attendance, copies of diplomas and transcripts for five years.*
 - (3) *Shall establish and maintain affiliation agreements with clinical affiliate sites.*
 - (4) *Shall assure the security and confidentiality of student records, instructional materials, and other appropriate program materials.*
 - (5) *Shall assure an appropriate relationship between program length and the subject matter taught and the objectives for the degree or credential offered.*
 - (6) *Shall measure the length of all didactic and clinical courses in clock hours or credit hours.*
 - (7) *Shall solicit, analyze and use feedback from communities of interest for continuous improvement of policies, procedures, and educational offerings.*
- (f) **Standard Five – Fiscal Stability**
*In support of **Standard Five**, the program:*
- (1) *Shall have sufficient on-going financial resources to support the program's mission and goals.*
 - (2) *Shall provide the Program Director an opportunity to participate in the budget planning process.*
 - (3) *For those institutions and programs which receive Title IV financial aid, shall maintain compliance with USDE policies and procedures.*
- (g) **Standard Six – Facilities, Learning Resources and Student Support Services:**
*In support of **Standard Six**, the program:*
- (1) *Shall provide classrooms, laboratories, clinical affiliate sites, administrative and faculty offices, and other facilities to support its mission and goals.*
 - (2) *Shall provide clinical affiliate sites, so that students experience a variety of radiotherapeutic equipment.*
 - (3) *Shall have clinical affiliate sites that provide students with a variety and volume of procedures for competency achievement.*
 - (4) *Shall review, evaluate, and maintain learning resources to assure the achievement of student learning outcomes and program goals including current state radiation laws, regulations and standards, as well as applicable federal and international publications.*
 - (5) *Shall review, evaluate, and maintain student services to assure the achievement of student learning outcomes and program goals.*

- (6) *Shall ensure that if a clinical affiliate site is shared by two or more programs, the programs work together to assure appropriate utilizations of the setting and assures that clinical staff understands the differences in the operations of each program, especially as it relates to the clinical evaluation system of each program.*

Programs sharing a clinical site must provide documentation of initial and on-going collaboration between the programs including student clinical capacity, number of imaging rooms and clinical exams available, student/staff ratios and supervision and evaluation procedures.

- (h) *Standard Seven – Students:*
*In support of **Standard Seven**, the program:*

- (1) *Shall have student recruitment and admission practices that are consistent with published policies of the program and sponsoring institution.*
- (2) *Shall use student recruitment and admission practices that are non-discriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, and national origin.*
- (3) *Shall make available to prospective and enrolled students accurate information about admission policies, transfer credit, tuition and fees, refund policies, academic calendars, academic policies, grading policies, graduation requirements, and student services.*
- (4) *Shall provide timely and supportive academic, behavioral, and clinical advisement to students enrolled in the program.*
- (5) *Shall provide student academic and clinical activities that are educationally valid and support attainment of student learning outcomes.*
- (6) *Shall safeguard the health and safety of students associated with educational activities through implemented policies and procedures in regard to workplace hazards, harassment, communicable diseases, and substance abuse.*
- (7) *Shall limit required clinical and academic involvement for students to not more than 40 hours per week.*
- (8) *Shall limit nontraditional clinical experience assignments and only if they can be supported by a specific, valid educational plan, with appropriate supervision of students.*
- (9) *Shall ensure that each student wears a name tag while performing clinical procedures. The name tag shall identify the wearer as a student of radiation therapy.*

- (i) *Standard Eight – Consumer Protection and Radiation Safety Practices:*
*In support of **Standard Eight**, the program:*

- (1) *Shall safeguard the health and safety of students associated with educational activities through the implementation of published policies and procedures that are in compliance with Nuclear Regulatory Commission regulations and state laws as applicable.*
- (A) *Verifies that radiation therapy machine registration requirements have been met;*
- (B) *Ensures that a faculty and student radiation dosimetry reporting plan is in place*
- (2) *Shall have a pregnancy policy that is published and made known to accepted and enrolled female students that:*
- (A) *is consistent with applicable federal regulations and state laws;*

- (B) *includes notice of voluntary disclosure; and*
 - (C) *provides options for student continuance in the program.*
- (3) *Shall assure that students use equipment and accessories, employ techniques, and perform procedures in accordance with accepted equipment use and radiation safety practices to minimize radiation exposure to patients, selves, and others.*
 - (4) *Shall assure that radiation therapy procedures are performed under the direct supervision of a qualified practitioner.*
 - (5) *Shall maintain documentation that learning environments are in compliance with applicable state and federal radiation safety laws.*
 - (6) *Shall ensure that a film badge is worn at all times by a student in an affiliated clinical site.*
- (j) *Standard Nine - Program Ethics and Integrity:*
*In support of **Standard Nine** the program:*
- (1) *Shall adhere to high ethical standards in relation to students, faculty, and staff.*
 - (2) *Shall have program faculty recruitment and employment practices that are nondiscriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, and national origin.*
 - (3) *Shall publish statements accurately reflecting the program's offerings.*
 - (4) *Shall have due process procedures that are readily accessible, fair, and equitably applied.*
 - (5) *Shall regularly evaluate program policies, procedures, and publications and revises them as appropriate.*
 - (6) *Shall document the continuing accreditation of the sponsoring institution.*
 - (7) *Shall document the continuing recognition of each clinical affiliate site by applicable regulatory agencies.*
 - (8) *Shall maintain recognition of all clinical affiliate sites.*
 - (9) *Shall maintain recognition of all applicable faculty appointments.*
 - (10) *Shall comply with requirements to achieve and maintain accreditation.*
- (k) *Each training facility approved as a radiation therapy school shall meet and maintain all standards set forth in this section. Failure of an applicant to meet any of these standards shall be grounds for denial of approval. Failure of an approved radiation therapy school to maintain any of these standards shall be grounds for suspension or revocation of approval.*

Note: Authority cited: Sections 114870, 131050, 131051 and 131200, Health and Safety Code. Reference: Sections 107045 and 114870(d), Health and Safety Code.

HISTORY

1. *Amendment of subsections (b)(1), new subsection (c)(18) and amendment of Note filed 2-14-2008; operative 3-15-200 (Register 2008, No. 7)*