

COMMISSION ON HIGHER EDUCATION  
OFFICE OF THE PRESIDENT OF THE PHILIPPINES  
DAP Bldg., San Miguel Ave., Ortigas Center, Pasig City

June 5, 1995

CHED O R D E R  
No. 19 s. 1995

REVISED POLICIES AND STANDARDS  
FOR RADIOLOGIC TECHNOLOGY EDUCATION

To : Regional Director, Commission on Higher Education  
Presidents, State Colleges and Universities  
Heads of Private Schools, Colleges and Universities  
Deans, College of Radiologic Technology

1. The inclosed revised policies and standards approved by this Office, upon recommendation of the Philippine College of Radiology, Philippine Association of Radiologic Technologists, and representatives from Radiation Health Service, of the Department of Health, Board of Radiologic Technology (BRT), Commission on Higher Education (CHED) embodies the general principles and guidelines for the establishment and operation of Radiologic Technology Education Programs.
2. Schools of Radiologic Technology, in order to align its programs to the goals and mission of the institution and the nation and to make Radiologic Technology Education responsive to the demands for the manpower in the allied services, should have a built-in mechanism for continuous self-assessment of its instructional, research and extension services, capabilities and program thrusts and the necessary flexibility and adaptability to improve its internal operation and curricular programs towards meeting the diverse needs of the students, community and the nation.
3. All concerned institutions are enjoined to review and revise their curricular offering to conform with the provisions and requirements set forth in these guidelines.
4. Compliance with this Order by all concerned is desired.

(SGD.) RICARDO T. GLORIA  
Chairman

Incl.: As stated  
Reference: None  
Allotment: 4--(M.O. 1-87)  
To be indicated in the Perpetual Index  
under the following subjects:

Course of Study, COLLEGIATE RULES & REGULATIONS  
CURRICULUM

BDC/cht  
ched.rte/psradtec

**POLICIES AND STANDARDS FOR  
RADIOLOGIC TECHNOLOGY EDUCATION**

The following policies and standards shall govern the operation of Radiologic Technology Education Program in schools, colleges, and universities in the Philippines.

**ARTICLE I**

**AUTHORIZATION**

SECTION 1. Only schools, colleges and universities duly authorized by the Commission on Higher Education shall operate a Radiologic Technology Program.

SECTION 2. All curricular program in Radiologic Technology must be submitted to the Commission on Higher Education (CHED) Higher Education Regional Office (HERO) for information.

SECTION 3. The policies and standards are herein prescribed for all schools, colleges, and universities offering Radiologic Technology duly authorized/recognized by the Commission on Higher Education.

**ARTICLE II**

**MISSION STATEMENT**

SECTION 1. The goal of Radiologic Technology Education is to provide the country with dynamic, competent, compassionate, and committed Radiologic Technologists concerned with the application of "State-of-the-Art" scientific technique in imaging to insure accurate diagnosis.

SECTION 2. At the end of the course, students shall be able to:

- 2.1 Acquire and develop the knowledge of the various physical principles involved in diagnostic imaging and its attendant technical positioning of anatomical considerations and therapeutic application.

- 2.2 Develop awareness of the possible risks involved in the technical procedures and ways of minimizing such risks.
- 2.3 Develop the skills of properly positioning patients in the different technical projections called for in any particular study and employing the exposure factors to achieve good diagnostic imaging results including technical procedures in Radiotherapy.
- 2.4 Acquire and develop knowledge, attitudes, and skills necessary to contribute to the overall social, mental, and physical health of the community and country.

### ARTICLE III

#### ADMINISTRATION

SECTION 1. The school, college, and university offering Radiologic Technology Education shall be administered by a full-time Dean with the following qualifications:

- 1.1 A Filipino citizen;
- 1.2 A fellow of the Philippine College of Radiology or a Licensed Radiologic Technologist;
- 1.3 A teaching experience and/or a Radiologic Technology practitioner in a general and/or specialized hospital for at least three (3) years;
- 1.4 A holder of at least a Master's degree in Science, Education, and/or Administration;
- 1.5 Good moral character.

SECTION 2. The general functions and responsibilities of the Dean of the College of Radiologic Technology are:

- 2.1 To assist the school in the attainment of instructional goals, community extension services, and in all matters affecting the general policies of the institutions.
- 2.2 To exercise educational leadership among his faculty by:
  - 2.2.1 Initiating programs for curriculum development.
  - 2.2.2 Initiating and instituting faculty development program.
  - 2.2.3 Recommending appointment, promotion, teaching load, or separation of faculty members.

- 2.3 To assign and orient the faculty to act as adviser to students in their program of studies and to approve subject load.
- 2.4 to supervise, coordinate, and consult with heads of student's personnel services, regarding admission, promotion, and retention of students.
- 2.5 To help formulate policies in his college and to recommend necessary rules and regulations for their effective implementation.
- 2.6 To institute a definite program of supervision in order to raise the efficiency of instruction; such as evaluation of instructional materials, strategies, facilities, and equipment.
- 2.7 To exercise supervision over all activities, curricular and co-curricular, of his college in coordination with other officials concerned.
- 2.8 To recommend the acquisition of necessary equipment, facilities, and supplies.
- 2.9 To assume total responsibility for implementation of requirements for graduation.

#### ARTICLE IV

##### FACULTY

SECTION 1. The faculty shall have the following academic preparation appropriate to their teaching assignment.

- 1.1 A graduate of a Bachelor of Science in Radiologic Technology and duly licensed by the Professional Regulation Commission.
- 1.2 Preferably be a holder of a Master's degree or have earned masteral units in teaching.
- 1.3 Must have at least one (a) year experience in general radiologic work or teaching.

SECTION 2. A licensed medical practitioner and a medical physicist may be invited to teach provided they teach their area of specialization .

SECTION 3. The faculty in a school offering Radiologic Technology Education shall be assigned academic ranks in accordance with their academic training and scholarship. The usually recognized ranks are: Instructor, Assistant Professor, Associate Professor, and Professor. The ranking criteria may be based on:

- 3.1 academic credentials;
- 3.2 professional experience;
- 3.3 teaching abilities and responsibilities;
- 3.4 scholarly productivity;
- 3.5 character and personality;
- 3.6 continuing education and research experience.

SECTION 4. As a general rule, a new member of the faculty begins as instructor, and is subsequently promoted, if deserving. However, a faculty may be employed/appointed with a rank warranted by his qualification.

SECTION 5. When vacancies occur in the teaching force during the school year, substitutes and replacements with similar or higher qualification shall be appointed.

SECTION 6. At least sixty (60) percent of Radiologic Technology Education courses shall be taught by full-time faculty.

SECTION 7. A faculty development program shall be established for effective operation of the college and for the improvement and/or development of the profession. This program may be carried out through:

- 7.1 Scholarship grants to deserving full-time permanent faculty members.
- 7.2 Providing incentives for study towards the Masteral/Doctoral degree by giving at least thirty (30) percent discount in tuition fee, if the university/school offers the masteral/doctoral program or through other forms of assistance.
- 7.3 Subsidize attendance/participation in seminars, conferences, and other in-service training programs.

## ARTICLE V

### CURRICULUM (see attached)

SECTION 1. The minimum requirement for the course of Radiologic Technology Education is flexible and maybe revised. However, the Commission on Higher Education must be duly notified.

SECTION 2. The minimum number of academic units required for completion of a degree in Bachelor of Science in Radiologic Technology is one hundred twenty-six (126) units.

SECTION 3. As a policy, the school, college, and/or university offering Radiologic Technology Education may exercise flexibility in their curricular offering. However, radiologic technology subjects as prescribed by the revised curriculum shall be implemented.

## ARTICLE VI

### INSTRUCTIONAL STANDARDS

SECTION 1. The institution shall maintain a high standard of instruction utilizing appropriate updated syllabi and instructional procedures which contribute to sound Radiologic Technology Education. A system of supervision shall be instituted and implemented for the purpose of evaluating teaching competence.

SECTION 2. The institution shall have a competent instructional staff of good moral character classified into various academic ranks.

SECTION 3. The institution shall provide for a systematic and continuing plan of evaluation of student's progress through a grading system that is consistent with the objectives of the school, college, and/or university.

SECTION 4. The school, college, and/or university shall adopt any textbook of fairly recent edition which reflects the current trends and advancements in the field of radiological sciences and which does not violate Philippine laws. Adopted basic textbooks may be changed once in every three (3) years.

SECTION 5. The Dean of the college shall see to it that students are provided with the necessary textbooks and instructional materials. If the students cannot acquire said textbooks, the Dean shall make arrangements with the administration so that sufficient number of these materials be provided in the library for the students to use. One (1) copy of each of the basic textbooks for every twenty-five (25) students shall be provided.

SECTION 6. A variety of teaching strategies appropriate to a particular situation shall be utilized.

SECTION 7. The Commission on Higher Education does not issue specific requirements for promotion of students except that no student shall be given credit for the completion of a course, unless he/she has fulfilled the requirements for

entrance/admission, attended classes faithfully and regularly, and acquired reasonable proficiency in the subjects taken. The promotional records shall be kept in the school within the following semester for examination in cases of grievances and complaints.

SECTION 8. The ratio of faculty to students in a technical laboratory shall be a maximum of one is to forty (1:40).

SECTION 9. Evaluation must be an integral part of teaching-learning process and the students informed of the results. A variety of tests and measurements shall be utilized.

SECTION 10. The Internship Training Program (the practicum aspect of the program) where the students develop professional radiologic technology skills through a systematic application of scientific knowledge to actual radiographic-diagnostic work in hospitals and clinics, shall consider the following criteria:

- 10.1 There shall be a close correlation of theoretical knowledge to the internship training.
- 10.2 The Internship Training Program shall be so designed to meet the objectives of the Radiologic Technology curriculum.
- 10.3 In determining the adequacy and effectivity of the training program, the following factors shall be considered:
  - 10.3.1 Background knowledge, skills, and attitude of students in the various disciplines of Radiologic Technology.
  - 10.3.2 Hospitals, clinics, and health agencies must be licensed by the Department of Health to operate a radiological facility.
  - 10.3.3 A fixed ratio of Intern to Radiologic Technologists shall be established. A minimum number of training hours shall be established by the school and affiliated hospital, clinic, and/or health agency.
- 10.4 There shall be a systematic and coordinated working relationship between the Dean of the school, college, or university and the head of the affiliated hospital, clinic, and/or health agency.

## ARTICLE VII

### LIBRARY

SECTION 1. Every school, college, or university offering Radiologic Technology Education shall have library resources relevant to general and Radiologic Technology Education, adequate in quality and quantity to meet the needs for scholarly and research works for the faculty and students. It shall progressively grow in accordance with institutional development and expansion plan.

SECTION 2. There shall be an adequate number of books of fairly recent edition for all Radiologic Technology subjects.

SECTION 3. There shall be an adequate subscription to radiological journals, periodicals, and relevant scientific publications.

SECTION 4. The library shall provide adequate reading space in proportion to the student population.

## ARTICLE VIII

### RESEARCH

SECTION 1. The school, college, or university shall encourage and support research work in the field of Radiologic Technology and shall have competent and qualified faculty capable of handling research.

SECTION 2. Faculty members assigned to do research activities shall be credited with an equivalent teaching load for the duration of the research study.

SECTION 3. The institution shall encourage and support research activities among its students and faculty for the furtherance of radiologic technology profession.

## ARTICLE IX

### LABORATORY FACILITIES

SECTION 1. The curricular program offered by the school, college, or university is the main determining factor in the design and the construction of its physical facilities.

SECTION 2. The school, college, or university shall provide lecture and laboratory rooms adequate for instructional and experimental activities.

2.1 There shall be adequate equipment, facilities, and materials for a particular laboratory science course it offers.



- 2.2 Adequate space shall be provided to accommodate the largest class using the laboratory.
- 2.3 Laboratory activities shall be conducted in a laboratory room designed purposely for a particular science or professional course.
- 2.4 Radiological facilities shall comply with the basic standards as well as safety requirements prescribed by the Radiation Health Service (RHS) of the Department of Health (DOH).

SECTION 3. The efficiency of laboratory instruction is determined not on mere possession of laboratory space, equipment, and materials, but on the basis of their adequacy and quality, their productive use, and the competency of the technical staff for scientific and professional progress to ensue.

3.1 The laboratory shall:

3.1.1 Be well lighted, ventilated, and provided with safety devices and first aid facilities.

3.2.1 Have adequate working and free space for the convenience of the students.

3.2 Separate laboratory for the physical, biological, and radiologic technology sciences shall be provided.

3.3 Facilities in the science laboratory shall include:

3.3.1 A continuous and adequate supply of water.

3.3.2 Safety and emergency devices shall be available and accessible.

3.4 Equipments and supplies shall:

3.4.1 Be adequate for the laboratory course based on the number of students.

3.4.2 Be in good working condition at all times.

3.4.3 Include other teaching aides needed for efficient laboratory instruction.

3.5 Experiments performed in a particular laboratory subject shall:

3.5.1 Be adequate in scope to cover the concepts and theories to be taught and learned.

3.5.2 Emphasize investigation and inquiry.

- 3.5.3 Be so designed as to be undertaken by the students with a minimum of instruction from the teacher.

SECTION 4. Specific laboratory equipments for the following laboratory science courses shall be provided:

4.1 Radiologic Technology Laboratory:

- 4.1.1 Functioning X-ray Machine w/ adequate filtration
- 4.1.2 X-ray table with grid
- 4.1.3 Beam restricting devices
- 4.1.4 Processing tanks
- 4.1.5 Developer and fixer solutions
- 4.1.6 Thermometer
- 4.1.7 Darkroom safe light
- 4.1.8 Darkroom timer
- 4.1.9 Film hanger of different sizes
- 4.1.10 Film cassettes of different sizes
- 4.1.11 X-ray films of different sizes for exposure and demonstration purposes
- 4.1.12 Film dryer or film rack
- 4.1.13 X-ray caliper
- 4.1.14 Leaded aprons, gloves, and gonadal shields
- 4.1.15 Negatoscopes
- 4.1.16 Movable protective barrier

4.2 Physics

4.2.1 Mechanics

- 4.2.1.1 Balance, accurate to 0.9 g
- 4.2.1.2 Balance, triple beam with weights
- 4.2.1.3 Ball, brass, drilled, "1" diameter
- 4.2.1.4 Block, wood, rectangular, paraffin coated
- 4.2.1.5 Car, metal, (Hall's car)
- 4.2.1.6 Clear and sand, for table top
- 4.2.1.7 Composition of forces apparatus
- 4.2.1.8 Crane boom, simple
- 4.2.1.9 Cylinder, numbered, of a brass or aluminum
- 4.2.1.10 Inclined plane board with pulley
- 4.2.1.11 Meter stick
- 4.2.1.12 Micrometer caliper
- 4.2.1.13 Pendulum bob, metal
- 4.2.1.14 Pulley, single sheave
- 4.2.1.15 Pulley, 2 or 3 sheave
- 4.2.1.16 Ring stand, iron
- 4.2.1.17 Stop watch
- 4.2.1.18 Twins (Cotton)
- 4.2.1.19 Vernier Caliper
- 4.2.1.20 Weight hanger
- 4.2.1.21 Weight: set, 1 g, 100 g

- 4.2.1.22 Weight set, slatted
- 4.2.1.23 Wheel and axle apparatus
- 4.2.2 Heat
  - 4.2.2.1 Bunsen burner and tubing or alcohol lamp
  - 4.2.2.2 Calorimeter
  - 4.2.2.3 Coefficient of linear expansion apparatus
  - 4.2.2.4 Funnel, 4-in. diameter glass
  - 4.2.2.5 Metal block, assortment of lead, aluminum, brass, copper
- 4.2.3 Sound
  - 4.2.3.1 Ripple tank, complete with attachment to produce linear waves from a point of source
  - 4.2.3.2 Tuning fork
  - 4.2.3.3 Tuning forkhammer
- 4.2.4 Light
  - 4.2.4.1 Color apparatus
  - 4.2.4.2 Color filters, various colors
  - 4.2.4.3 Glass prism, equilateral, faces 7.15 c. long and 9 mm. thick
  - 4.2.4.4 Glass slides, including red, green and blue to fit color apparatus
  - 4.2.4.5 Image screen, Bristol board with metric scale
  - 4.2.4.6 Lamp, 7.5 watt, standard base
  - 4.2.4.7 Lamp, socket, standard base
  - 4.2.4.8 Meter stick support
  - 4.2.4.9 Mirror, plane, rectangular
  - 4.2.4.10 Mirror, spherical, demonstrating 40-c. diameter concave
  - 4.2.4.11 Mirror, spherical, demonstrating 4-cm convex

## ARTICLE X

### SELECTION, ADMISSION, RETENTION, AND PROMOTION OF STUDENTS

SECTION 1. The following are requirements for an applicant for admission into the Radiologic Technology program:

- 1.1 Have graduated from a general secondary course authorized by the government.
- 1.2 Have satisfactorily complied with admission requirements of the school.

- 1.3 Has not been convicted or found guilty of any crime or misconduct involving moral turpitude.

SECTION 2. As a general rule, no applicant shall be enrolled in the Radiologic Technology course unless he presents the required school credentials before the end of the enrollment to the Committee on Admission.

## ARTICLE XI

### ACCREDITATION FOR INTERSHIP TRAINING

SECTION 1. The student shall have completed all academic requirements of the course to qualify for internship training.

SECTION 2. The Radiologic Technology Internship Program shall be divided into the Junior and Senior internship periods of at least five (5) months each. An evaluation shall be conducted by the school at the end of each period for the purpose of ranking and/or testing the proficiency of the student. Students who failed may be required to repeat the internship program.

SECTION 3. The school shall enter into an affiliation contract with hospitals, clinics, and/or health agencies with radiological facilities duly licensed by the Department of Health and such valid contract be made available to the Commission on Higher Education assessment team.

- 3.1 Radiologic Technology interns shall abide with the rules and regulations of their affiliate hospitals, clinics, or health agencies and shall wear complete prescribed uniform. Above all, interns shall maintain proper decorum and professional excellence in the performance of their duties. Any infraction of the rules and regulations of the affiliate center shall carry a specific disciplinary action and this shall be reported to the school authorities within a reasonable period of time.

SECTION 4. An intern shall undergo eight (8) hours internship per day five (5) days a week and shall undertake to perform or assist in at least eight hundred (800) general and special radiographic examination during his entire training period.

4.1 The following procedure must be observe and performed by students prior to graduation.

4.1.1 General Radiography

4.1.1.1 Upper Limb . . . . .	50
4.1.1.2 Shoulder Girdle . . . . .	20
4.1.1.3 Pelvic Girdle hip jt. . . . .	30
4.1.1.4 Lower Limb . . . . .	50
4.1.1.5 Vertebral Column . . . . .	10
4.1.1.6 Thoracic Cage . . . . .	75
4.1.1.7 Thoracic Contents. . . . .	75
4.1.1.8 Skull . . . . .	20
4.1.1.9 Abdomen. . . . .	20

4.1.2 Special Radiographic Procedures:

4.1.2.1 Biliary System . . . . .	5
4.1.2.2 Urinary System . . . . .	10
4.1.2.3 Gastro-intestinal system . . . . .	15
4.1.2.4 Special examinations (e.g. bronchography, sialography myelography, hystero-sonography, etc.) . . . . .	5

4.2 The following procedure must be observed and possibly performed:

- 4.2.1 Radiotherapy/Brachytherapy
- 4.2.2 Nuclear Medicine
- 4.2.3 Ultrasound
- 4.2.4 Computed Tomography
- 4.2.5 Magnetic Resonance Imaging
- 4.2.6 Interventional Radiography

4.3 A list of procedures/examinations, assisted and/or performed, shall be recorded in a logbook duly signed by the concerned Supervising Technologist of the hospital, clinic, and/or health agency and submitted to the Internship Coordinator of the school.

SECTION 5. To ensure effective supervisory work, a technologist to intern ratio should be 1:4 .

SECTION 6. The following are guidelines on the selection of hospitals, clinics, and or health agencies for internship affiliation:

- 6.1 The hospitals or clinic must have a license to operate radiological facilities issued by the Department of Health.
- 6.2 A General or Special Hospital of not less than one hundred (100) bed capacity with an average bed occupancy of not less than eighty (80) percent having an X-ray unit for general examination of not less than 100 mA capacity.
- 6.3 The hospital, clinic, and/or health agency must employ qualified Radiologic Technologists; i.e. persons who are licensed/registered by the Professional Regulation Commission.
- 6.4 The hospital, clinic, and/or health agency must have a qualified Radiologist; a member of the Philippine College of Radiology or as prescribed by the Department of Health (under Executive Order No. 35, series of 1994) for government hospitals and health agencies.
- 6.5 The hospital affiliate shall have a radiological training staff responsible for implementation of educational program.
- 6.6 Special hospital shall have Radiologic Technologists with minimum experience of at least two (2) years practice before they are allowed to supervise Radiologic Technology Interns.
- 6.7 The affiliated hospital, clinic, and/or health agency for Radiologic Technology Internship training shall have an X-ray unit of not less than 100 mA and a minimum workload of twenty (20) patients per day for general radiography.
- 6.8 The hospital must be licensed by the Department of Health and accredited by the Philippine College of Radiology

## ARTICLE XII

### GRADUATION OF STUDENTS

SECTION 1. The candidate for graduation shall:

- 1.1 Complete all the required number of units in the Radiologic Technology curriculum as prescribed by the school.
- 1.2 Have a minimum residence of one (1) year with an academic load of not less than thirty (30) units prior to internship in the college where the student is graduating.
- 1.3 Comply with other requirements for graduation prescribed by the school.

PROTOTYPE CURRICULUM  
BACHELOR OF SCIENCE IN RADIOLOGIC TECHNOLOGY

FIRST YEAR

		Lec.	Lab.	Total Units
First Semester				
ENGL	Grammar & Composition I	3	-	3
FIL	Sining ng Pakikipagtalastasan	3	-	3
MATH	College Algebra	3	-	3
PHYS	College Physics I	3	2	5
	Humanities	3	-	3
PSYCHO	General Psychology	3	-	3
R T 100	Intro. to Radiologic Technology	1	-	1
P E		-	-	2
ROTC				(1.5)
Total . . . . .				23 (24.5)

Second Semester				
ENGL	Grammar & Composition II	3	-	3
FIL	Panitikang Pilipino	3	-	3
MATH	Plane Trigonometry	3	-	3
HIST	Rizal's Life, Works & Writings	3	-	3
	Basic Anatomy & Physiology	3	2	5
R T 101	Photochemistry & Film Analysis	3	1	4
R T 102	Radiation Physics	3	-	3
P E		-	-	2
ROTC				(1.5)
Total . . . . .				26 (27.5)

SECOND YEAR

First Semester				
SPEECH	Speech & Oral Communication	3	-	3
PHILO	Philosophy of Man	3	-	3
R T 111	Radiographic Anatomy & Physiology	3	2	5
R T 112	Medical Terminology	1	-	1
R T 113	Radiologic Apparatus & Equipment Maintenance	2	1	3
R T 114	Radiographic Technique	3	1	4
R T 115	Radiographic Positioning	3	2	5
P E		-	-	2
ROTC				(1.5)
Total . . . . .				26 (27.5)

Second Semester

ENGL	Elective	3	-	3
R T	121 Radiobiology & Radiation Protection	3	-	3
R T	122 Special Radiographic Examination WITH Contrast Media	2	1	3
R T	123 Special Radiographic Examination WITHOUT Contrast Media	2	1	3
R T	124 Client Care in Radiology	3	-	3
R T	125. Department Administration, Ethics and Jurisprudence	3	-	3
P E		-	-	2
ROTC				(1.5)
Total . . . . .				20 (21.5)

THIRD YEAR

First Semester

ENGL	Elective	3	-	3
COMPU	Fundamental Skills & Word Processing	3	-	3
MATH	Introduction to Statistics	3	-	3
ECON	Principles of Economics with Taxation and Land Reform	3	-	3
HIST	Philippine History, Government and Constitution	3	-	3
R T	131 Radiologic Pathology	3	-	3
R T	132 Radiotherapy	3	-	3
R T	133 Ultrasonography	3	-	3
Total . . . . .				24

Second Semester

ENGL	Elective	3	-	3
	Research Methodology	3	-	3
COMPU	Basic Programming	3	-	3
R T	141 Principles of Health Education	3	-	3
R T	142 Nuclear Medicine	3	-	3
R T	143 CT Scan/MRI	3	-	3
R T	144 DSA/Interventional Radiography	3	-	3
R T	145 Seminar I	1	-	1
Total . . . . .				22

FOURTH YEAR

First Semester (minimum requirement)

JUNIOR INTERNSHIP - 5 months hospital training (20 wks) - 800 hrs.

Second Semester

SENIOR INTERNSHIP - 5 months hospital training (20 wks) - 800 hrs.

ETC/chit  
 PRADETC/Rad.Tech