Crafton Hills College
Course Outline

1. Discipline: Radiologic Technology

2. Department: Allied Health Services

3. Course Title: Introduction to Radiologic Technology

4. Course I.D.: RADIOL 100

5. Prerequisite(s):
Acceptance into the Radiologic Technology program

Corequisite(s):
RADIOL 103: Radiographic Positioning I
RADIOL 104: Radiologic Physics I
RADIOL 105: Radiographic Anatomy/ Physiology I
RADIOL 106: Radiographic Positioning Lab I
RADIOL 107: Basic Radiologic Medical Techniques
RADIOL 110: Radiographic Exposure I
RADIOL 115: Radiographic Clinic I

Departmental Recommendation(s): None

6. Semester Units: 1.5

7. Minimum Semester Hours:

Method	In-Class Min	Out-of-Class Min
Lecture	24.00	48.00
Lab		
Activity		
Clinical		
Field		
Work Experience		
Independent		
Total	24.00	0

8. Need for the Course:

The Radiologic Technology program at Crafton Hills College must comply with standards of the Joint Review Committee for an Accredited Educational Program in Radiologic Sciences. This course is a part of the radiography curriculum approved by the American Society of Radiologic Technologists. RADIOL 100 is appropriate to the college's mission as a part of a career-technical education program and is an essential part of the preparation for employment as a radiologic technologist. This course is associate degree applicable and is a requirement for both a certificate and associate degree in Radiologic Technology.

9. Goals for the Course:

As one of a series of courses that make up an integrated program, this course provides students with knowledge and skills necessary to successfully enter the field of radiology.

10. Catalog Description:

Introduction to the general structure of medicine specifically applicable to radiologic technology. Departmental administration, office procedures, radiation protection, equipment care, and basic medical techniques. Study and practice of professional ethics relative to the radiologic technology, emphasizing personal appearance, attitudes, hygiene and the code of ethics for radiologic technologists.

11. Schedule Description:

Introduction to the general structure of medicine specifically applicable to radiologic technology. Departmental administration, office procedures, radiation protection, equipment care, and basic medical techniques. Study and practice of professional ethics relative to the radiologic technology, emphasizing personal appearance, attitudes, hygiene and the code of ethics for radiologic technologists.

12. Entrance Skills:

A. Requisite Skills:

Upon entering this course, students must be able to:

1. verify their acceptance into the Radiologic Technology program and provide proof of a clear Department of Justice background check
2. identify and discuss positioning techniques and procedures, specifically those involving the chest, abdomen and upper and lower extremities (RADIOL 103)
3. identify, discuss and analyze introductory concepts in radiation physics, including radiation production and imaging equipment (RADIOL 104)
4. identify, discuss and analyze introductory concepts related to human structure and function, including anatomical nomenclature, chemical composition, cell structure, metabolism and tissue (RADIOL 105)
5. demonstrate positioning techniques and procedures, specifically those involving the chest, abdomen, and upper and lower extremities (RADIOL 106)
6. identify, discuss and demonstrate basic radiologic medical techniques (RADIOL 107)
7. identify, discuss and analyze introductory concepts regarding the acquisition and processing of radiographic images (RADIOL 110)
8. demonstrate appropriate skills in a clinical environment at an introductory level (RADIOL 115)

B. Recommended Skills:

None

13. Student Learning Outcomes:

Upon satisfactory completion of the course, students will be able to:

1. State the professions of radiologic technology.
2. Discuss the discovery of x-rays.
3. Define abbreviations commonly used in medicine.
4. List common radiographic procedures.
5. State the primary factors that affect radiographic exposure.
6. Draw a simple diagram of X-ray tube and label the parts.
7. Explain the ALARA principle.

14. Course Objectives:

Upon satisfactory completion of the course, students will be able to:

1. identify other health science professionals that participate in the patient's total health care
2. identify various settings involved in the delivery of health care

3. discuss the reimbursement/payment options for health care services
4. discuss the role and value of a mission statement to the operation of an institution
5. discuss the relationship between institutional administrative personnel and radiology services
6. describe the relationship and interdependencies of departments within a health care institution
7. identify and discuss the responsibilities and relationships of all personnel in the radiology department
8. explain patient services available in the radiology department
9. differentiate between programmatic and institutional accreditation
10. define accreditation, credentialing, certification, licensure, and regulations
11. explain the purposes of accreditation and certification and identify the agencies involved
12. discuss the general employment outlook for the graduate radiographer
13. discuss career advancement and opportunities for the radiographer
14. identify the benefits of continuing education as related to improved patient care and professional enhancement
15. discuss the origins of medical ethics
16. apply medical/professional ethics in the context of a broader societal ethic
17. explain the role of ethical behavior in health care delivery
18. differentiate between empathetic rapport and sympathetic involvement in relationships with patients and relate these to ethical conduct
19. explain concepts of personal honesty, integrity, accountability, competence and compassion as ethical imperatives in health care
20. list legal and professional standards and their relationship to practice in health professions
21. identify specific situations and conditions that give rise to ethical dilemmas in health care
22. explain select concepts embodied in principles of patients' rights, the doctrine of imformed (patient) consent and other issues related to patients' rights
23. explain the legal implications of professional liability, malpractice, professional negligence and other legal doctrines applicable to professional practice
24. describe the importance of accurate, complete, correct methods of documentation as a legal/ethical imperative
25. explore the theoretical situations and questions relating to the ehtics of care and health care delivery
26. explain the specific legal terms, principles and laws specific to the radiologic sciences
27. outline the elements necessary for a valid malpractice claim
28. describe institutional and professional liability protection typically available to the radiographer
29. describe the elements and implications of informed consent
30. identify the standards for disclosure relative to informed consent
31. describe how consent forms are utilized relative to specific radiographic procedures
32. identify the four sources of law to include statutory, administrative, common and constitutional
33. differentiate between civil and criminal liability
34. define a tort and explain the differences between intentional and unintentional torts
35. exhibit critical data research retrieval and analysis skills composing an evidence-based narrative that addresses an ethical dilemma foudn in the patient care setting

15. Representative Texts and Instructional Materials:

Gurley, L.V.T & Callaway, W.J. (2010). *Introduction to Radiologic Technology* (7/e). Philadelphia: Mosby.

Towsley-Cook, D.M. & Young, T.A. (2007). *Ethical and Legal Issues for Imaging Professionals* (2/e). Philadelphia: Mosby.

16. Course Content:

A. The Health Science Professions
   1. Radiologic technology
   2. Related health care professions

B. The Health Care Environment
    1. Health care systems
    2. Health care delivery settings
    3. Payment and reimbursement systems
C. Hospital Organization
    1. Philosophy
    2. Mission
    3. Administrative services
    4. Medical services
D. Radiology Organization
    1. Professional personnel
    2. Support services
    3. Patient services
    4. Educational personnel
E. Accreditation
    1. Definition
    2. Programmatic accreditation
    3. Instititional accreditation
F. Regulatory Agencies
    1. Federal
    2. State
    3. Reimbursement
G. Professional Credentialing
    1. Definition
    2. Agencies
H. Professional Organizations
    1. Purpose, functions and activities
    2. Local organizations
    3. State organizations
    4. National and international organizations
    5. Related associations and organizations
I. Professional Development and Advancement
    1. Continuing education and competency requirements
    2. Continuing education opportunities
    3. Employment considerations
    4. Advancement opportunities
J. Ethics and Ethical Behavior
    1. Origins and history of medical ethics
    2. Moral reasoning
    3. Personal behavior standards
    4. Competence
    5. Professional attributes
    6. Standards of practice
    7. Self-assessment and self-governance
    8. Code of professional ethics
    9. Ethical concepts
    10. Systematic analysis of ethical problems
    11. Ethical patient care data research and discovery
K. Ethical Issues in Health Care
    1. Individual and societal rights
    2. Cultural considerations
    3. Economical considerations
    4. Technology and scarce resources
    5. Access to quality health care
    6. Human experimentation and research
    7. Medical and health care research
    8. End-of-life issues
L. Legal Issues
    1. Parameters of legal responsibility
    2. Patient personal information

3. Intentional torts
4. Negligence and malpractice
5. Legal risk reduction

M. Patient Consent
1. Definition
2. Types
3. Condition for valid consent
4. Documentation of consent

17. Methods of Instruction:

A. Lecture
B. Demonstration
C. Observation
D. Guest Speakers
E. Class Activities
F. Class Discussions

18. Assignments and Methods of Evaluation:

The course grade will be based on the accumulation of points from quizzes (33%), a midterm exam (33%) and a final exam (33%). Students must pass this and all other courses with a grade of “C” or better to remain in good standing in the Radiologic Technology program.

19. Course Enrollment: 8

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