



ANTELOPEVALLEY COLLEGE

**Academic Affairs
Course Outline of Record**

Academic Affairs Only

- X New Course 5/24/2007
- COR Revision
- COR Update
- X Pre Req/Advisories 5/24/07
- Other Changes
- X Effective Date 200870
- X SLO 7/30/2008

COURSE SUBJECT & NUMBER: RADT 210

COURSE NAME: Principles of Venipuncture for Radiology

COURSE UNITS: 1 **COURSE HOURS:** 18 hours lecture total

COURSE REQUISITES: *(Follow format of similar courses found in the college catalog.)*

Limitation on Enrollment: Formal admission to the Radiologic Technology program

Prerequisites: Completion of RADT 201 with a grade of "C" or better

Corequisites: Concurrent enrollment in RADT 202, 202CL, 203, and 204.

COURSE DESCRIPTION: *(Write a short paragraph providing an overview of topics covered. Be sure to identify target audience--transfer, major, GE, degree/certificate, etc. If repeatable, state the number of times at end of description.)*

This course provides basic instruction and practice of venipuncture theory and methods for the administration of contrast agents. It meets California Health and Safety Code, Section 106985, pertaining to Certified Radiologic Technologists performing venipuncture. (AVC)

COURSE OBJECTIVES: *(Use Bloom's taxonomy to formulate concise, performance-based measurable objectives common to all students. Objectives must be closely aligned with course content, assignments, and methods of evaluation.)*

Upon completion of course, the successful student will be able to:

1. Use medical terminology to describe venipuncture and radiopaque contrast media.
2. Describe the routes of administration, absorption, and excretion of medications and radiopaque contrast media.
3. Describe methods and techniques used by radiographers in the administration of various types of contrast agents.
4. Specify the various uses of medical record documentation and its importance in radiography.
5. Differentiate between ionic and nonionic radiopaque contrast media.
6. Compare and contrast common adverse reactions to intravascular radiopaque contrast media.
7. Identify the clinical manifestations associated with anaphylactic reaction.
8. Perform successful venipuncture.

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COURSE CONTENT: *(Enter course content in terms of specific topics or a specific body of knowledge that each instructor must cover. Put topics in outline form with major and minor headings. Title 5 requires that each instructor must cover all material listed below.)*

- I. Preparation for venipuncture
 - A. Documentation and client history
 - B. Vital signs assessment
 - C. California law
 - D. Aseptic practices

- II. Principles of drug administration
 - A. Six “rights” of drug administration
 - B. Routes of administration
 - C. Methods of administration
 - D. Supplies
 - E. Venous anatomy
 - F. Venipuncture techniques

- III. Pharmacology
 - A. Introduction to drugs
 - B. Drug nomenclature
 - C. Classification of drugs
 - D. Dosage forms
 - E. Pharmacodynamics and pharmacokinetics

- IV. Contrast media
 - A. Introduction to types of contrast media
 - B. Water-soluble iodine contrast media
 - i. Ionic
 - ii. Non-ionic
 - C. General effects
 - D. Adverse reactions
 - E. Identification and management of anaphylactic reaction

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TYPICAL HOMEWORK ASSIGNMENTS: READING, WRITING, COMPUTATIONAL, OTHER

This information is necessary for all credit courses. Assignments should be closely related to course objectives, content, and methods of evaluation. (See sample of a "Model Outline" in the AP&P Standards & Practices handbook.) Include a range of assignments (minimum of three) from which faculty may choose when designing their syllabus.

1. Describe nature and frequency of typical reading assignments if applicable; note if any are required:

Ten to 20 pages of reading from assigned text weekly.

2. Describe nature and frequency of typical writing assignments if applicable; note if any are required:

Written report about venigraphic contrast media differentiating two types of media, once in the course

3. Describe nature and frequency of typical computational assignments if applicable; note if any are required:

Dosage calculation for contrast media, weekly

4. Describe other types of homework assignments that students may be asked to complete; note if any are required:

5. Describe those critical thinking skills that are derived from assignments listed above; be sure that they reflect course objectives.

Analysis of two types of contrast media

6. For categories 1-4, describe the estimated time per week it would take a student to complete homework assignments.

Title 5 uses the Carnegie formula for establishing units using a 2:1 ratio as follows: 1 hr. lecture = 2 hrs .homework; 2 hrs. lecture = 4 hrs .homework; etc. For example: reading textbook—2 hours; writing reports—3 hours.

Reading: 2 hours per week reading text

Writing: 1 hour per week writing paper that analyzes two types of contrast media

Computational: ½ hr per week computing dosage calculations for contrast media

Other:

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METHODS OF INSTRUCTION: *(Methods must be consistent with content and appropriate to objectives; state in terms of what instructor will be doing in order to present course content to students: for example, lecture, demonstration, facilitate group work, etc. Do not list specific instructional equipment.)*

Lecture, discussion, demonstration and return demonstration, audiovisuals, software instruction (simulation)

METHODS OF EVALUATION: *(These must be clearly related to course content, assignments, and objectives in order to comply with Title 5 requirements. Describe what instructor will be looking for when evaluating various assignments and tests in order to determine whether students have met course objectives. Grades must be based on demonstrated proficiency in subject matter and determined, where appropriate, by essays, objective and essay tests, research papers or projects, problem solving exercises, or skills' demonstrations.)*

Examinations (multiple choice and short answer) to assess achievement of objectives 1 through 7

Written paper to assess achievement of objectives 2, 3, and 7

Skills demonstration to assess achievement of objective 8

Suggested Texts or other Instructional Materials *(list several when possible; include title, author, publisher, date, and latest edition.)*

Adler, Arlene, and Carlton, Richard. Introduction to Radiologic Sciences and Patient Care, 3rd ed. W.B. Saunders, 2003.