

RARITAN VALLEY COMMUNITY COLLEGE ACADEMIC COURSE OUTLINE

HLTH – 109 PHARMACOLOGY

I. Basic Course Information

- A. Course Number and Title: HLTH-109
Pharmacology
- B. Date of Proposal: March 2006
- C. Sponsoring Department: Health Science Education
- D. Semester Credit Hours: 2
- E. Weekly Contact Hours: Lecture: 2 hours
- F. Prerequisites: HLTH-150 (Medical Terminology),
BIOL 151 (Human Biology) **or**
BIOL 124 & BIOL-125 (Human
Anatomy & Physiology I & II)
HLTH-107 (Pathophysiology)
- G. Laboratory Fees: None

II. Catalog Description

Prerequisites: HLTH-150 (Medical Terminology),
BIOL 151 (Human Biology) **or**
BIOL 124 & BIOL 125 (Human Anatomy & Physiology I & II)
HLTH-107 (Pathophysiology)

This course is an introduction to pharmacology, including terminology, drug category, use, side effects, contraindications, and interactions. Common dosage ranges and routes of administration will also be examined. A general understanding of the actions and reasons for use of various groups of pharmacologic agents is introduced. Medications are discussed according to major drug classifications and body systems.

III. Statement of Course Need

This course fulfills the “knowledge cluster content and competency” required by the American Health Information Management Association. Earning a credential validates one’s competence as a professional in the health information management industry to employers and the public. This credential requires an

associate's degree and successful performance on the RHIT certification exam. Students must successfully complete and meet the learning objectives as defined for this course in order to qualify to take the national certification examination.

IV. Place of Course in College Curriculum

A.

- This course meets a requirement in the proposed four-semester Health Information Technology A.A.S. degree program.

V. Outline of Course Content

1. Introduction Pharmacology
2. The Drug Cycle
3. Drug Effects
4. Drug Forms and Routes
5. Drug Testing and Marketing
6. Musculoskeletal Drugs
7. Analgesic Drugs
8. Psychiatric Drugs
9. Anti-Infective Drugs
10. Antiviral Drugs
11. Antifungal Drugs
12. Chemotherapy Drugs
13. Cardiovascular Drugs
14. Anticoagulant/Thrombolytic Drugs
15. Pulmonary Drugs
16. Gastrointestinal Drugs
17. Endocrine Drugs
18. Antidiabetic Drugs
19. Obstetric/Gynecologic Drugs
20. Neurological Drugs

VI. Educational Goals and Learning Outcomes

Educational Goals

Students will:

1. Describe the components of the drug cycle, absorption, distribution, metabolism and excretion. (G.E.1)
2. Identify medications within commonly prescribed drug/pharmaceutical categories. (G.E.1)
3. Describe the therapeutic action of commonly prescribed drugs within a given category. (G.E.1)

4. Identify the diseases a generic or proprietary prescribed drug is used to treat. (G.E.1)
5. Identify several generic and proprietary drugs used to treat a specific disease. (G.E.1)
6. Spell correctly commonly prescribed generic and proprietary drug for each medications category discussed. (G.E.1,3)
7. Demonstrate research techniques for obtaining drug information from drug references and other sources. (G.E.1, 3)
8. Analyze healthcare records and correlate symptoms, diagnoses, and tests performed with drugs administered. (G.E.1, 3)

Learning Outcomes

Students will be able to:

1. Define terms related to pharmacology
2. Describe how drugs administered via the following routes are absorbed: topical, oral, inhalation, rectal/vaginal, injection.
3. Describe how the liver metabolizes drugs.
4. Describe how the kidneys excrete drugs.
5. Differentiate between a local and systemic drug effects.
6. Define these terms: *therapeutic effect, side effect, adverse effects, and target organ.*
7. Describe the physiologic response of an allergic drug reaction.
8. Define the terms *receptor, agonist, antagonist, synergism, and antagonism.*
9. Name multiple forms in which drugs are manufactured.
10. Name several routes of drug administration.
11. Describe the advantages and disadvantages of oral administration of a drug.
12. Describe the chemical, generic and trade or brand name of drugs.
13. Describe therapeutic effects and actions of defined drugs.

VII. Modes of Teaching and Learning

- lecture/discussion
- computer-assisted instruction
- student collaboration
- independent study

VIII. Papers, Examinations, and other Assessment Instruments

- chapter review questions
- assignments
- quizzes

IX. Grade Determinants

Review Questions

At the end of each chapter there are several review questions. Students will be directed to address specific questions and submit answers on predetermined due dates. In addition to assessing your knowledge of medical terminology, disease processes and drugs/pharmacological agents, these exercises will evaluate your ability to communicate clearly and effectively in a written format. Textbooks or reference books may be used to answer the questions. Clarity of written expression and correct grammatical expression is expected.

Assignments

Assignments will consist of various activities intended to enhance the students comprehension of pharmacology as it applies to the role of the “Health Information Technology” professional. Many assignments involve “Internet Investigations”. Some assignments require the student to explore alternative sources of drug information. Assignments are for the learners edification. Substantive discussion board contributions will reflect completion and understanding of assignments.

Quizzes

Quizzes are designed to provide the student with an opportunity to demonstrate understanding of content specified in the course learning objectives. Quizzes occur at the end of every unit. There are 11 units in this course. The number of questions on a quiz is variable. Achieved grade on a quiz is based on the number of correct answers.

There is no cumulative midterm test. There is no cumulative final exam. Pharmacology does not lend itself to cumulative recall. Pharmacology information must be accessed on a continual basis. Pharmacology entails ongoing critical thinking.

Quizzes will assess the student’s ability to relate disease management to pharmacological agents. Student comprehension of the therapeutic action of commonly prescribed drug categories will be evaluated. Quizzes may be comprised of multiple-choice, fill-in the blanks, true/false or short essay questions. Quiz items will be developed to engage students in application, problem solving and critical thinking. Questions may be derived from readings, PowerPoint presentations, assignments, chapter review questions, Internet investigations and discussion board postings.

Final Grade:

Review Questions	30%
Assignments	30%
Quizzes	40%

X. Texts and Materials

REQUIRED:

1. Understanding Pharmacology for Health Professionals, Susan M. Turley, Prentice Hall, Third Edition, 2003, ISBN 0-13-041742-4
2. Drug Information Handbook for Allied Health, 11th ed., L Lance, C Lacy, L Armstrong, & M Goldman, 2004, Publisher: Lexi-Comp, ISBN: 1-59195-087-2

REFERENCES:

1. Any professional quality medical dictionary

XI. Resources

The RVCC library resources and the resources in the Department of Health Science Learning Lab provide the materials and resources needed for this course.