COURSE INFORMATION FORM

DISCIPLINE: Veterinary Technology

COURSE TITLE: Clinical Mathematics for Veterinary Technicians

CR.HR. 1  LECT HR. 1  LAB HR.    CLIN/INTERN HR.    CLOCK HR.  

CATALOG DESCRIPTION

PREREQUISITES
Acceptance into the Veterinary Technician Program

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:
1. Demonstrate ability to perform mathematical calculations necessary for medical professionals.
2. Explain the differences and perform conversions between the metric, apothecaries and household measuring system.
3. Describe methods for calculating and preparing differing strength solutions by a variety of mathematical methods.
4. Perform calculations involving fluid therapy and flow rates.

GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

Quantitative Literacy and Mathematical Analysis: Interpret and apply numeric information embedded in text or real-life situations (ESO) (1,2,3,4)
PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

The student will demonstrate:
1. the ability to communicate effectively and clearly with instructors regarding the treatment and care of animals
2. the ability to carry out the role and function of a Veterinary Technician

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Written examination (1-4)
2. Weekly assignments (1-4)
3. Group projects (1-4)
4. Final examination (1-4)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Review of basic math
   A. Fractions
   B. Decimals
   C. Percentages

II. Different systems of measure
    A. Metric
    B. Apothecaries
    C. Household equivalents

III. Conversion of Celsius and Fahrenheit

IV. Scientific notation

V. Ratios, proportions, percents and dimensional analysis

VI. Drug and dose calculations
    A. Medications
    B. Milligrams of drug
    C. Dimensional analysis method
    D. Proportion method

VII. Solutions
    A. Pure drug form
    B. Dilutions
    C. Ratios

VIII. Reading and writing prescriptions

IX. Fluid therapy
    A. Flow rates
    B. Infusion times
    C. Constant rate infusions
    D. Calculating total fluid needs