



MTH 154: Mathematics for Veterinary Professionals

Mathematics for Veterinary Professionals is intended for students in the Veterinary Technician or Veterinary Healthcare program or other individuals in the health professions who have the responsibility of the preparation and administration of medications. Students will develop an understanding of a variety of mathematical calculations to accurately solve problems within veterinary medicine. By using deductive thinking skills, students will be able to determine the reasonableness of these results. These well-founded mathematical judgements will result in growth as a constructive, concerned, and reflective veterinary professional. Additionally, students will compose explanations using mathematical language of their judgements. Mathematical fundamentals will be covered along with the following: Systems of measurement and their equivalents, unit conversions, dosage measurement equipment, interpretation of the medication order, calculation of oral, parenteral & intravenous drug dosages, percentage preparations, and dilution & concentration. Three lecture hours per week. Gen Ed Competencies Met: Quantitative and Symbolic Reasoning.

Course Student Learning Outcomes

1. Perform accurate calculations related to dosages, fluid administration, and medication preparation. 2. Interpret drug labels, dose intervals, and routes of administration. 3. Convert a patient's weight from United States customary units to Metric units and vice versa. 4. Determine drug dosages based on animal weight, concentration, and desired therapeutic effect. 5. Prepare mixtures and dilutions to a desired concentration. 6. Determine the volume, flow/drip rate, or stop time for an infusion for a given patient. 7. Determine the calculations needed for anesthesia administration and titrations.

Credits: 3

Program: Mathematics