

Small Animal Science Technologies is an intermediate course in animal science and care for students interested in learning more about becoming a veterinarian, vet tech, vet assistant, or pursuing a variety of scientific, health, or agriculture professions. This course covers the anatomy and physiological systems of different groups of small animals, as well as careers, leadership, and history of the industry. Upon completion of this course, proficient students will be prepared for more advanced coursework in veterinary and animal science.

Weeks 1-3: History of Domestication

Week 1:

- **Introduction to Domestication**
 - Overview of domestication.
 - Define and apply industry-specific terminology.

Week 2:

- **History of Small Animal Domestication**
 - Research historical uses and roles of domesticated animals.
 - Compare historical processes of small animal domestication.

Week 3:

- **Review and Application**
 - Present findings and discuss the impact of historical processes on modern practices.

Weeks 4-6: Economic, Occupational, and Technological Implications

Week 4:

- **Economic Implications**
 - Investigate economic impacts on home and business related to small animals.

Week 5:

- **Career Exploration**
 - Explore local and regional career opportunities in the small animal industry.
 - Describe necessary skills and knowledge for various careers.

Week 6:

- **Financial and SAE Recordkeeping**
 - Maintain and manage financial records for a small animal SAE program.
 - Practice summarizing business records and financial reports.

Weeks 7-9: Personal and Occupational Health and Safety

Week 7:

- **Zoonotic Diseases**
 - Research zoonotic diseases associated with small animals.
 - Compare and contrast specific diseases and infection control methods.

Week 8:

- **Health Requirements and Regulations**
 - Identify laws and regulations for small animal health and safety.
 - Summarize documentation requirements for transportation and ownership.

Week 9:

- **Safety and Operational Procedures**
 - Review common laboratory safety procedures.
 - Demonstrate safety procedures and complete a safety test.

Weeks 10-12: Responsible Pet Ownership

Week 10:

- **Financial and Legal Responsibilities**
 - Research benefits and responsibilities of pet ownership.
 - Compare sources for obtaining pets and laws governing ownership.

Week 11:

- **Ethical Care**
 - Compare responsible pet ownership practices with negligent practices.
 - Discuss training, housing, feeding, and management.

Week 12:

- **Review and Discussion**
 - Summarize key points and engage in discussions on pet ownership ethics.

Weeks 13-15: Animal Ethics

Week 13:

- **Fundamentals of Animal Rights and Welfare**
 - Identify philosophies related to animal rights and welfare.
 - Examine impact of key figures and legislation.

Week 14:

- **Analyzing Ethical Issues**
 - Debate issues such as abuse, overpopulation, euthanasia, and global ethics.
 - Form claims and counterclaims with data and evidence.

Week 15:

- **Review and Application**
 - Present ethical case studies and discuss solutions.

Weeks 16-18: Nutrition and Digestive Systems

Week 16:

- **Digestive System Identification**
 - Compare ruminant and non-ruminant digestive systems.

Week 17:

- **Nutritional Requirements**
 - Research nutrient requirements and interpret feed labels.
 - Recommend balanced rations for small animals.

Week 18:

- **Nutritional Diseases**
 - Distinguish symptoms of nutritional diseases.
 - Recommend control procedures.

Weeks 19-21: Genetics, Reproduction, and Genomics

Week 19:

- **Reproductive Systems**
 - Research male and female reproductive systems.
 - Summarize physiological changes during reproductive phases.

Week 20:

- **Principles of Genetics and Genomics**
 - Explain genetics and genomics principles in small animals.

- Discuss inheritance, gene transfer, and mapping traits.

Week 21:

- **Review and Application**
 - Apply genetic principles to case studies.

Weeks 22-24: Fundamental Care and Health of Dogs and Cats

Week 22:

- **Domestication and Health**
 - Research historical importance and characteristics of dogs and cats.
 - Demonstrate grooming and health care practices.

Week 23:

- **Reproductive Cycle and Breeding**
 - Illustrate reproductive cycles and summarize breeding methods.

Week 24:

- **Diseases and Parasites**
 - Research common diseases and parasites affecting dogs and cats.
 - Recommend prevention and control measures.

Weeks 25-27: Fundamental Care and Health of Rabbits, Guinea Pigs, Chinchillas, and Rodents

Week 25:

- **Domestication and Health**
 - Research historical importance and characteristics.
 - Demonstrate grooming and health care practices.

Week 26:

- **Reproductive Cycle and Breeding**
 - Illustrate reproductive cycles and summarize breeding methods.

Week 27:

- **Diseases and Parasites**
 - Research common diseases and parasites.
 - Recommend prevention and control measures.

Weeks 28-30: Fundamental Care and Health of Avians, Fish, Amphibians, and Reptiles

Week 28:

- **Domestication and Health**
 - Research historical importance and characteristics.
 - Demonstrate grooming and health care practices.

Week 29:

- **Reproductive Cycle and Breeding**
 - Illustrate reproductive cycles and summarize breeding methods.

Week 30:

- **Diseases and Parasites**
 - Research common diseases and parasites.
 - Recommend prevention and control measures.

Weeks 31-33: Review and Application

Week 31:

- **Comprehensive Review of Small Animal Standards**
 - Review key concepts from all units.
 - Prepare for assessments and practical applications.

Week 32:

- **Project Presentations**
 - Present projects related to small animal care and health.
 - Discuss findings and applications.

Week 33:

- **Final Exam Preparation**
 - Review and consolidate knowledge.
 - Prepare for final exams and practical evaluations.

Weeks 34-36: Final Assessments and Wrap-Up

Week 34:

- **Final Exams**
 - Administer final exams covering all topics.

Week 35:

- **Practical Assessments**

- Conduct practical assessments based on hands-on skills and knowledge.

Week 36:

- **Course Wrap-Up**

- Reflect on learning outcomes.
- Discuss career pathways and further study opportunities.