ANIMAL SCIENCE - LARGE

AS 1000
Survey of Animal Agriculture
Large Animal Science students, matriculating from approved High School Vo-Ag programs, may receive 3 elective credits at the end of their freshman year at Delaware Valley College. Contact the Large Animal Science Department for application procedures. — 3 credits

AS 1006
Introduction to Animal Science
This course examines the management and production practices for dairy, beef, horses, sheep, swine, and poultry. The associated laboratories acquaint the student with working procedures in common practice. 2 hours Lecture and 3 hours Laboratory — 3 credits

AS 1045
Livestock Industries and Careers
This course emphasizes the variety of production systems and careers in the beef cattle, sheep, swine, poultry, and horse industries, providing the basis for the student's selection of production courses in the senior year. 2 hours Lecture — 2 credits

AS 1101
Stable Management
An introductory level course that emphasizes the management and practical care of equine facilities and horses. Requires participation outside of scheduled class hours. 3 hours Lecture and 2 hours Laboratory — 3 credits

AS 2116
Livestock Evaluation
This course emphasizes the factors that contribute to livestock utility. The relationship between the live animal and the carcass is covered as well as an introduction to livestock judging and oral reason presentation. The various systems of production, testing and grading are also studied. 2 hours Lecture and 3 hours Laboratory — 3 credits

AS 3000, 4000
Selected Topics I and II
Special projects designed to meet individual needs of students in the specialized fields of agriculture. Projects will be arranged on a one-to-one basis with a department faculty member and with the approval of the Department Chairperson. May be repeated to a maximum of 2 credits. 3 hrs of student/faculty instruction per week — 1 credit each.

AS 3123
Animal Husbandry Techniques
The course presents an overview of the techniques associated with handling, restraint, injections, and identification of livestock. Additional management techniques are performed on college livestock as livestock production schedules require. 1 hour Lecture and 3 hours Laboratory — 2 credits

AS 3209
Advanced Selection of Livestock
This course is designed to instruct the student in the comprehensive judging and selection of livestock, as well as live animal pricing and grading. The student will also receive an in-depth study of reasons, preparation and presentation. Prerequisite: Livestock Evaluation or Permission of Instructor. 3 hours Laboratory — 1 credit

AS 3210
Mare and Foal Management
An advanced course involving the care and management of breeding, pregnant and foaling mares. Care of newborn foals during the first six months of life is emphasized. Prerequisite: Horse Breeding Management. Requires participation outside of scheduled class hours — 3 credits

AS 4014
Beef Science
This course provides an in-depth review of the beef industry and includes cow-calf, stocker, and feedlot production. Included is a study of the theory and practice of feeding, breeding and overall management of beef cattle. Prerequisites: Animal Feeding and Nutrition, Physiology of Reproduction and Livestock Genetics. Requires participation outside of scheduled class hours. 2 hours Lecture and 3 hours Laboratory — 3 credits

AS 4016
Seminar (Animal Science)
The study of recent research and development in the field of Animal Science with special emphasis on oral presentations. Prerequisite: Speech. 1 hour of Lecture and Discussion — 1 credit
AS 4027
Sheep Science
This is a comprehensive introduction to the feeding, breeding, housing, care and management of sheep. While the lectures focus on current practices employed in both large and small operations, the laboratories offer opportunities to apply management practices and to visit a variety of commercial operations in the area. Requires participation outside of scheduled class hours. Prerequisites: Animal Feeding and Nutrition and Genetics of Livestock. 2 hours Lecture and 3 hours Laboratory — 3 credits

AS 4028
Swine Science
This course provides a thorough introduction to all aspects of swine production and management. The lectures cover current practices regarding nutrition, breeding, housing, and health care, while laboratories provide opportunities to apply management techniques. Requires participation outside of scheduled class hours. 2 hours Lecture and 3 hours Laboratory — 3 credits

AS 4029
Poultry Science
This course is a broad study covering the breeds and varieties of poultry used commercially for meat and eggs. It includes the production methods, management practices, marketing procedures, processing systems and techniques commonly current in the poultry industry. Requires participation outside of scheduled class hours. 2 hours Lecture and 3 hours Laboratory — 3 credits

AS 4041
Senior Research
Selected seniors engage in supervised investigations involving library work and laboratory or field experiments related to Animal Science. Requirement: Permission of Department Chairperson — 1-3 credits

AS 4051
Current Topics
This is a research and discussion course that emphasizes topics of current interest to the animal and dairy industries. May be repeated to a maximum of 2 credits. 1 hour Lecture and Discussion — 1 credit

AS 4106
Principles of Animal Nutrition
A study of the principles and fundamentals of nutrition in livestock. Emphasis is placed on comparative relationships of good nutrients to metabolic processes in domestic animals and on current research and development in the field of animal nutrition. Prerequisite: Introduction to Animal Science, Principles of Organic Chemistry or Organic Chemistry I. Permission of Instructor. 2 hours Lecture and 3 hours Laboratory — 3 credits

AS 4111
Yearling Horse Sale Management
An advanced course involving the management of yearling horses including sales preparation, development of a consignment, sales advertising, video taping sales horses, and working a yearling sale. Prerequisite: Horse Breeding Management. Requires participation outside of scheduled class hours — 2 credits

AS 4130
Advanced Livestock Judging
This course provides intensive training in selection of livestock using subjective and objective measurements as well as the use of oral reasons to explain and defend decisions. An intercollegiate Livestock Judging Team will be selected from students taking this course. Due to considerable travel and time required, enrollment is limited and a 2.2 academic average is required. This course begins one week prior to the start of the Fall Semester. Prerequisite: Advanced Selection of Livestock. 3 hours Laboratory — 1 credit

AS 4214
Animal Diseases
A study of prevention, recognition, and treatment of diseases in animals, with emphasis on domestic livestock and consequences of disease to production agriculture and human health. Prerequisites or corequisite: Anatomy and Physiology of Animals. 3 hours Lecture — 3 credits

AS 4219
Horse Breeding Management
A course designed to acquaint the student with the operation of a horse breeding farm. Teasing, breeding, foaling, mare and stallion care, and foal care are emphasized. Students manage the College’s breeding facility. Requires participation outside of scheduled class hours. 2 hours Lecture and 3 hours Laboratory — 3 credits

AS 4221
Equine Exercise Physiology
This course involves a survey and the critical evaluation of the current concepts regarding the physiolog-
ical and environmental factors associated with exercise in the horse. This course is offered on the campus of Rutgers University, New Brunswick, NJ as part of a credit exchange program. Elective for full-time students only. Students must provide their own transportation. Prerequisite: Anatomy and Physiology of Animals or Equine Anatomy and Physiology and permission of the Large Animal Science Department Chairperson. 3 hours Lecture — 3 credits

**AS 4223**

**Advanced Equine Nutrition**

An advanced course in equine feeding and nutrition emphasizing current research being conducted in the field and the application of research findings to current problems associated with feeding the equine athlete. This course is offered on the campus of Rutgers University, New Brunswick, NJ as part of a credit exchange program. Elective for full-time students only. Students must provide their own transportation. Prerequisite: Permission of the Large Animal Science Department Chairperson. 3 hours Lecture — 3 credits

**AS 5000**

**Hartpury Exchange**

A semester exchange with the Hartpury College in Gloucestershire, Great Britain for qualified students in the Large Animal Science program. Students pursue coursework in Animal Science and Livestock Production from the British perspective. Spring semester of Junior year. Prerequisite: minimum of 3.0 GPA and permission of the Large Animal Science Department Chairperson. 3 hours Lecture — 3 credits

**BY 1115, 1216**

**Natural Science I and II**

Natural Science I introduces some of the basic physical and chemical principles that affect our world and then concentrates on the biological principles that pertain to living things in general and human beings in particular. The concepts build from the cellular level to the systems level and then to the organism as a whole. Natural Science II is a continuation of Natural Science I and begins with a study of basic ecological concepts. It builds to an examination of the roles humans have played in creating some of the problems we face today as well as the roles we may play to help alleviate them. Topics include population growth, energy sources, and air, water, solid waste, and toxic waste pollution. Natural Science I (or permission of the Department Chairperson) is a prerequisite for Natural Science II. Not available to Biology majors and does not substitute for an introductory biology course. 3 hours Lecture each — 3 credits each

**BY 1116, 1217**

**Biological Science I and II**

An introduction to the study of life featuring: molecular and cellular biology; genetics; metabolism; survey of the animal kingdom; animal organ systems and embryology; survey of the botanical kingdoms; seed plant structure, function, and development; behavior; evolution; and ecology. Biological Science I is a prerequisite for Biological Science II. This is the introductory biology sequence for majors other than Biology majors. Permission of Department Chairperson is required for Biology majors. 2 hours Lecture and 3 hours Laboratory each — 3 credits each

**BY 2001**

**Botany**

Plant structure, function, and development are studied in this course, followed by a survey of the botanical kingdoms, stressing reproductive cycles and evolution. Laboratory slides and specimens are complemented by field work. Prerequisite: Biology II or Biological Science II. 3 hours Lecture and 3 hour Laboratory — 4 credits