AGRICULTURE

Smith Hall, Room 109
269-471-6006

BT: Agribusiness

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schools of choice for the most current and detailed information. A list of accredited colleges of veterinary medicine may be obtained from the American Veterinary Medical Association, 930 North Meacham Road, Schaumburg, IL 60196; www.avma.org.

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The required prerequisite pre-veterinary courses are usually general biology, general and organic chemistry, physics, biochemistry, mathematics, courses in animal science, and general education.

Courses (Credits)

See inside front cover for symbol code.

Agriculture

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Factors affecting soil formation, soil texture, particle size, pore space and their impact on soil air/water relations, and chemical characteristics of soils, including pH, ion exchange, and maintenance of soil fertility. Weekly: 3 lectures and a 3-hour lab.

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Fifty hours per credit of supervised practical experience in one area of concentration. May be repeated in different areas for a maximum of 6 credits. Topics to be chosen in consultation with an advisor.

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Selection and operation of farm equipment, based on the initial cost and economic performance, including factors governing the site and type of farm machines, their capacity, efficient use, adjustment and repair. Weekly: 2 lectures and a 3-hour lab.

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Design, installation, drawing, interpretation and maintenance of plastic or metal irrigation systems and control devices for proper sprinkler coverage.

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An introduction to acquiring and analysis of management information for decision making; an understanding of basic economic principles that impact biological production systems and implementation of the principles for total quality management for increased productivity.

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Importance, distribution, economic adaptation, and botany of leading farm crops, emphasizing rotation, seedbed preparation, and economic production.

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Basic principles of forage crop production, emphasizing choice of crop, establishment, growth, maintenance, harvesting, storage and feeding.

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Control of weeds in horticultural and field crops, utilizing biological, cultural, mechanical, and chemical practices. Class study also involves preparation and testing for pesticide applicator's license. Weekly: 2 lectures and a 3-hour lab.

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A class based on selected topics of current interest in agriculture. Repeatable in different areas including, but not limited to:

- Concepts of International Agriculture
- Mittleider Method
- Horse Judging
- Livestock Judging
- Viticulture
- Solanaceous and Vine Crops
- Tree Fruit Production
- Equine Dentistry
- Equine Hoof Care and Basic Shoeing
- Hippotherapy/Therapeutic Riding
- Riding Instruction—English
- Riding Instruction—Western
- Equine Massage Therapy

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Agriculture study tours are designed to enhance and broaden the on-campus learning experience by visiting areas of horticultural and agricultural interest and their impact on the local culture and society. Students will be expected to conduct pre-tour research on a specific topic related to the purpose of the tour and a post-tour analysis and synopsis of the tour experience.

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Supervised internship of on-the-job work experience in some field of agriculture under the direction of the employer and evaluated by a departmental faculty member. Students submit a report of their experience and must complete a minimum of 12gthe. g syn-cl tfi

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Covered is how to choose the right pet for your life situation, how to travel with your pet on all kinds of transportation, how to keep your pet healthy, grooming, training and correcting behavioral problems. Animal species covered are dogs, cats, small caged pets/rodents, birds, fish, reptiles and amphibians.

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A study of various types of milking systems, housing and manure handling systems of dairy cattle of all ages and production levels. Ventilation, stall and barn dimensions, and bedding will be some of the topics covered. Weekly: 2 lectures and one 3-hour laboratory.

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A study of the cause, prevention and treatment of infectious and metabolic diseases of dairy cattle. Also included is dairy cattle breeding and genetics. Weekly: 2 lectures and one 3-hour laboratory.

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Principles of digestion, absorption, metabolism of feeds by farm species are examined for practical, profitable feeding. Common and non-traditional feedstuffs, feed-related diseases and ration formulation are included. Weekly: 3 lectures. Recommended: CHEM 100 or higher.

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A study of the ways domestic animals communicate and interact with conspecific and other animals, and humans. Included are: physiological basis and development for each type of behavior; normal and aberrant behavior manifestations in each domestic animal species; treatments for problem situations; consideration of the effects of domestication on each species. Two lectures and one lab per week.

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Production methods and management practices of domesticated livestock species including nutrition, reproduction, housing, health and specialized care of a particular species. Course is repeatable for study of avian, beef cattle, dairy cattle (includes a lab), equine (includes a lab), porcine, and wool and lamb production.

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A survey of proper handling and care, nutritional needs, and common health problems of companion animals such as dogs, cats, and birds.

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Study of macroscopic skeleton, muscles, internal organs, blood vessels and nerves using preserved, latex-injected specimens. Comparisons made with the live dog through palpation. Weekly: 2 lectures and 2 three-hour labs. Recommended: BIOL166.

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Study of the ethical issues that challenge animal researchers, producers, caretakers, and veterinarians to treat animals humanely yet effectively in society today.

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Anatomy and physiology of the udder, milk secretion, disease prevention and treatment, milking management and milking systems. Weekly: 2 lectures and 1 lab.

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A study of basic genetics, cytogenetics, immunogenetics, population genetics and quantitative genetics, biotechnology,

photosynthesis, cellular respiration, plant reproduction, including flowering, fruit development, seed set, the role of hormones, and plant nutrition. Weekly: 4 lectures and a 3-hour lab.

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Develops proficiency in technical drafting for landscape design including symbols, title blocks, plant legends and plan organization. Principles of design, site analysis, functional diagraming, circulation, spatial planes, design schematics and plant selection are explored. Laboratory puts the design process to work in drawing plans for residential design. Weekly: 3 lectures and a 3-hour lab.

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An introduction to the horticultural and landscape field for majors and homeowners alike, this class offers basic care of the home landscape. Landscaping wi[illegible]

hardware to create CAD-generated landscape designs. Prior landscape drawing course work is recommended.

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Landscape design concepts relating to the more challenging problems of residential design. Field application of grading