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Agribusiness Science & Technology - Animal Science Program

Course Curriculum

Semester 01 (Tuition: $2,460)

Course #	Course Title	Credits
10-006-159	Agribusiness Computer Applications	1

Credits: 1 Lecture Hours: 18
Students will construct, manipulate, and select spreadsheets and documents for various situations in the agriculture industry and on a farm. Data gathering agriculture software will be introduced to demonstrate its use in making management decisions. The use of email features used in business will be explored. Pre/Co-requisites: Beginning Microsoft Excel (10-103-106)

10-006-161	Career Development in Agriculture	1

Credits: 1 Lecture Hours: 18
Student will develop individual leadership and employment qualities, in addition to exploring the agricultural industry and available careers.

10-006-180	Animal Science	3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
This course provides fundamental knowledge of the animal science field. Topics include animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and job related safety. Participants will experience animal concepts through the completion of hands-on activities.

10-093-101	Plant and Soil Science	3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
Course is designed to provide the student with fundamental knowledge of soil, soil composition and plant components and their function. Students will build their knowledge on the physical and biological properties of soil and soil fertility, along with the factors that influence seed germination, plant growth and reproduction. Students will gain additional knowledge through hands-on experience in the classroom and out in the field.

10-103-106	Beginning Microsoft Excel	1

Credits: 1 Lecture Hours: 18
This course is an introduction to Microsoft Excel. Students will learn the basic features to produce basic worksheets and charts. Other topic areas covered include formatting, formulas, built-in functions used to design functional worksheets to solve business problems. Basic experience with Windows is assumed.

10-801-136	English Composition 1	3

Credits: 3 Lecture Hours: 54
This course is designed for learners to develop knowledge and skills in all aspects of the writing process. Planning, organizing, writing, editing and revising are applied through a variety of activities. Students will

analyze audience and purpose, use elements of research and format documents using standard guidelines. Individuals will develop critical reading skills through analysis of various written documents.

10-804-123 Math with Business Applications 3

Credits: 3 Lecture Hours: 54
Students use real numbers, basic operations, linear equations, proportions with one variable, percents, simple interest, compound interest, annuity, and apply math concepts to the purchasing/buying process, the selling process, and apply basic statistics to business/consumer applications.

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Semester 02 (Tuition: $2,830)

Course #	Course Title	Credits
10-006-123	Artificial Insemination Training	1

Credits: 1 Lecture Hours: 3.9
This course is designed for the student wishing to learn artificial insemination of cattle as a career choice or to be used for personal farm purposes.

10-006-150 Farm Animal Reproduction 3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
The student will learn the physiology and anatomy of the male and female reproductive tract of livestock. Also, covered in this course are hormones that effect the reproductive tract and the estrus cycle of the female. The student will become familiar with the reproductive disease of males and females. Finally an introduction to the common reproductive protocols and technology used within the industry.

10-070-104 Ag Safety, Electrical & Maintenance 2

Credits: 2 Lecture Hours: 18 Lab Hours: 36
Students will learn skills necessary to help them make general repairs and identify proactive maintenance steps of all types of equipment throughout a farmstead. Safety while performing daily tasks will be included in every unit. Emphasis areas include selecting personal protective equipment, working around cattle, crop storage, farm chemicals and fluids storage, safety awareness of electrical systems both on equipment and around the farmstead, selecting proper tools to perform maintenance procedures, and ATV safety. Students will gain an understanding of viewing the farmstead with a safety focus to recognize farm hazards and being aware of corrective measures that are needed to make the farmstead safe for all personnel on the farm.

10-080-117 Animal Nutrition & Ration Balancing 4

Credits: 4 Lecture Hours: 54 Lab Hours: 36
Students will study the digestive systems and nutritional needs of livestock and dairy animals. Identification of feedstuffs and regulations on livestock feeding will be explored. Students will read, interpret, and make recommendations on feed test reports and tags. They will also learn to read rations and mix sheets, along with the formulation and balancing of rations using computer-based software.

10-080-118 Introduction to Animal Health 3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
This class is designed to introduce the student to the study of farm animal health. During this course students will study animal anatomy, basic immune system function and common diseases (causes, treatments and prevention). They will become familiar with genetic abnormalities and animal behavior. Finally, the student should gain a grasp of the uses of antibiotics, vaccines and hormones.

10-801-196 Oral/Interpersonal Communication 3

Credits: 3 Lecture Hours: 54
Students demonstrate competency in speaking, verbal and nonverbal communication, and listening skills through individual presentations, group activities and other projects.

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Semester 03 (Tuition: $490)

Course #	Course Title	Credits
10-006-197	Agribusiness Experiential Learning	3

Credits: 3 Lecture Hours: 0 Occupational Hours: 216
The student will have the opportunity to apply course work to a practical, on-the-job situation. Goals, competencies and core abilities are followed. Prerequisites: Legal Aspects of Agribusiness (10-006-114), Pest ID & Mgt/Crop Scouting (10-006-126), Agribusiness Financial Management (10-006-133), Farm Animal Reproduction (10-006-150), or Introduction to Animal Health (10-080-118)

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Semester 04 (Tuition: $2,990)

Course #	Course Title	Credits
10-006-162	Agribusiness Operations	3

Credits: 3 Lecture Hours: 54
Students will develop skills in understanding the agribusiness industry and the operational responsibilities of a business. Studies will include the role of management, forecasting, budgeting and the marketing approach to customer satisfaction. Students will develop a business plan for an agricultural related business.

10-080-119	Livestock Housing & Equipment	3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
Students will have the opportunity to learn principles of designing correct facilities based on the environment, feeding system, waste removal systems, and factors which influence animal health. Students will compare and contrast various facilities, as well as study building materials, design, layout and construction cost estimates. Additionally, students will identify requirements of a concentrated animal feeding operation permit. Students will complete a final project of designing the housing facilities for a livestock species of their choice.

10-080-120	Animal Genetics	3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
The student will gain fundamentals in genetics of farm animals in this course. A historical perspective will be studied through Mendelian theory, followed by the study of current bull proving processes. Mastery of the terminology and theory will be used for application of sire selection and animal evaluation. Genomics will also be used to apply current theories in farm animal selection.

10-093-106	Crop Production & Management	3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
Course will provide students with knowledge necessary to plan, produce, protect, harvest, and store grain and forage crops commonly produced in Wisconsin. Students will gain a basic understanding of the relationships involved with producing quality grain and forage for livestock production. The course will also introduce technology related to the advancement of the production and management of grain and forage crops. Students will gain experience with forage production and management through hands-on labs, field trips, and through real world in-the-field scenarios.

10-809-199	Psychology of Human Relations	3

Credits: 3 Lecture Hours: 54
Students explore the relationship between the general principles of psychology and our everyday lives. Students are given the opportunity to achieve a deepened sense of awareness of themselves and others. This understanding enables students to improve their relationship with others at work, in the family, and in society.

10-006-146 Milk Production * *OR* *

Credits: 3 Lecture Hours: 36 Lab Hours: 36
Students study the value of milk in human nutrition, milk and health issues, the role of dairy cattle in the production of animal protein, physiology of lactation, milk composition, the effect of various feeds, milk testing, production records, recommended milking procedures in association with proper sanitation and prepping the cow, care and maintenance of equipment, mastitis and its relationship to profitability, use of laboratory culturing and sensitivity testing, study of computerized production records and their uses, as well as laws regulating milk production. Field trips will be utilized to view firsthand the topics studied in class.

10-006-147 Meat Quality 3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
The students will study the importance of meat industry from the farm to the consumer. Students will be engaged in broad educational opportunities within the meat science industry for preparation in the world of work. Topics will range for live animal evaluation, transportation, safety aspects including regulations, inspection and laws surrounding handling animals, evisceration, wholesale and retail cuts, temperature and use of by products from the animal.

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Semester 05 (Tuition: $2,020)

Course #	Course Title	Credits
10-006-117	Agribusiness Performance Standards	3

Credits: 3 Lecture Hours: 54 Lab Hours: 36
Course will provide students with ability to recognize and evaluate performance standards used in the agribusiness industry. Topics will include DOT regulations, legal descriptions, commodity marketing, contracts, financial statements and scorecards. Production standards will also be covered using industry benchmarks.

10-082-101 Automation in Agriculture 3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
Provides an overview of automation in agriculture and introduces the tools used. Trends and opportunities within the area of automation will be explored. Focus will be on robotics, data collection, animal health monitoring systems, and automated environments.

10-809-172 Introduction to Diversity Studies 3

Credits: 3 Lecture Hours: 54
Students draw from several disciplines to reaffirm the basic American values of justice and equality by learning a basic vocabulary, a history of immigration and conquest, principles of transcultural communication, legal liability and the value of aesthetic production to increase the probability of respectful encounters among people. In addition to an analysis of majority/minority relations in a multicultural context, the topics of ageism, sexism, gender differences, sexual orientation, the disabled and the American Disability Act (ADA) are explored. Ethnic relations are studied in global and comparative perspectives.

10-006-153 Dairy Production Management * *OR* *

Credits: 3 Lecture Hours: 36 Lab Hours: 36
The student will study a variety of topics relevant to the dairy industry for the present and future planning of the industry. An overview of all aspects of the dairy industry ranging from health, nutrition, production,

management practices, technology, reproductive, economics, food safety, contracts and employability opportunities. The continued important topic and animal welfare will be addressed. The course will be thoughtful engaging for those learners who have a strong desire for employment and those who have interests in farming.

10-006-157 Livestock Production Management 3

Credits: 3 Lecture Hours: 36 Lab Hours: 36
The student will study a variety of topics relevant to the livestock (beef, swine, and small ruminants) industry for the present and future planning of the industry. An overview of all aspects of the livestock industry ranging from health, nutrition, production, management practices, technology, reproductive, economics, food safety, contracts and employability opportunities. The continued important topic and animal welfare will be addressed. The course will be thoughtful engaging for those learners who have a strong desire for employment and those who have interests in farming.

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Total Credits: 64

Estimated Total Tuition*: $10,790