

## Agribusiness

<b>Course #</b>	<b>Course Title</b>	<b>Open to:</b>
6301A/6302A	Intro Agriculture & Natural Resources	9, 10, 11, 12
6310	Veterinary Science I	9,10, 11, 12
6312	Veterinary Science II	10,11,12
6321	Greenhouse, Plants, & Flowers	10, 11, 12
6330	Aquaculture/Hydroponics I	10, 11, 12
6340	Small Animal and Horse Care	9, 10, 11, 12
6350	Fish & Wildlife I Management	9,10, 11, 12
6360	Fish & Wildlife II Management	10, 11, 12
6370	Forestry	10, 11, 12
6380	Natural Resource Management	10, 11, 12
6390	Biotechnology in Plants, Animals & Environ.	10, 11, 12
6391	Small Gas Engines	10,11,12
6731/6732	TE/Agribusiness Co-Op Class	12
6741/6742	TE/Agribusiness Co-Op Work Experience	12
6392	Outdoor Recreation	9,10,11,12
6340A	Large Animal	10,11,12
006323	Landscape & Turf Management	10,11,12
6330B	Agricultural Construction Skills	10,11,12
6330A	Aquaculture/Hydroponics II	10,11,12

### **AGRIBUSINESS**

#### **6301A/6302A INTRO AGRICULTURE & NATURAL RESOURCES**

Prerequisite: None

Grades: 9, 10, 11, 12 (Not open to seniors who have taken 3 or more Ag classes)

Year/ 1 credit

This is the Appetizer of all Agriculture Courses! Learn a little about everything- Growing Plants, Raising and Caring for Animals, Securing Wildlife, and Nurturing Forests. We learn by doing in this class. Brat making, cheese tasting, and root beer fermentation are a few examples! Work in the Aquaculture Center, Greenhouse, Hydroponic Room, and Outdoor Lab. We will explore careers in the agribusiness field and go on a few field trips to engage in those career options. Anyone interested in how the world turns will greatly benefit from taking this class.

#### **6310 VETERINARY SCIENCE I**

Prerequisite: None

Grades: 9,10, 11, 12

Semester/.5 credit

Basic animal care deals with identification, selection, nutrition, breeding, genetics, and health care for animals such as dogs, cats, horses, chickens, beef, sheep, dairy cattle, and small animals. Interested in becoming a veterinarian? This class will give you basic anatomy, physiology needed to pursue any animal career. Field trips and guest speakers from various phases of the animal industry are an important part of this class. A dissection lab is included in the veterinary unit of this course. It is recommended that Small Animal and Horse Care be taken before taking this class. This class counts as .5 credit science elective.

**6312**     **VETERINARY SCIENCE II**  
Prerequisite: Veterinary Science I (passing with A or B)  
Grades: 10,11, 12  
Semester/.5 credit

Advanced animal identification, health care, anatomy and physiology, hospital procedures, and principles of disease will be discussed. Extensive career exploration and preparation will be required. Field trips and guest speakers from various animal industry representatives will be an important part of this class.

**6321**     **GREENHOUSE, PLANTS, AND FLOWERS**  
Prerequisite: None  
Grades: 10, 11, 12  
Semester/.5 credit

Through a hands-on experience in the greenhouse and the school garden you will learn fundamental knowledge of plant components and their functions. Topics include pollinating, propagating plants, germinating seeds, plant nutrients, and factors affecting photosynthesis, respiration, transpiration, floral design, landscaping, vegetable production and greenhouse sales, pruning trees and shrubs, and care of indoor and outdoor plants. Learning by doing will be emphasized. Field trips to area greenhouses and nurseries will be a part of this class. Experts in the field will be brought in as guest speakers. Anyone considering a career in a greenhouse or landscaping should take this class. Landscaping an area on the school grounds is also a part of this class

**6330**     **AQUACULTURE/HYDROPONICS I**  
Prerequisite: None  
Grades: 10, 11, 12  
Semester/.5 credit this course counts as a .5 science elective

In this course, students will learn the basics of aquaculture: raising fish, plants, and other aquatic species. Concepts covered in the course will include a basic introduction to aquaculture, history, uses, types of aquaculture facilities, types of plants and animals cultured, and careers in aquaculture. Water quality, testing, and water calculations. Students will be responsible for the planting and care of fruits and vegetables as well. The class will also include field trips, guest speakers, projects and lab activities.

**6330A**    **AQUACULTURE/HYDROPONICS II**  
Prerequisite: Aquaculture/Hydroponics I  
Grades: 10, 11, 12  
Semester/.5 credit this course counts as a .5 science elective

This course emphasizes the lab based knowledge and methods necessary for aquaculture/hydroponics (aquaculture). Students learn the history, the structure and function of aquatic plants and animals, general management practices such as nutrition, health, water chemistry, equipment, and regulations. The business and careers of aquaponics will be covered.

**6330B**    **AGRICULTURAL CONSTRUCTION SKILLS**  
Prerequisite: None  
Grades: 10, 11, 12  
Semester/.5 credit this course counts as a .5 science elective

This class will give students a hands-on introductory level of agricultural construction. Skills learned in this class will prepare students to construct and maintain agricultural structures and equipment through the building of a garden shed. Skills are focused on tool identification, interpreting plans, calculating a bill of materials, electrification, carpentry, plumbing, and masonry.

**6340**     **SMALL ANIMAL AND HORSE CARE**

Prerequisite: None  
Grades: 9, 10, 11, 12  
Semester/.5 credit

If you love learning about animals and care of animals, this class is for you. Care and management of small domestic animals such as cats, dogs, guinea pigs, gerbils, mice, reptiles, rabbits, and hamsters will also be covered in this class. Breeding, feeding, digestive systems, housing, disease control, training, and marketing will be areas covered for each species. Nine weeks of this semester class will be spent studying horses and horse care. Breeds, feeding, grooming, disease control, conformation, and riding are some of the topics that will be covered in the horse care unit. Careers in the small animal, horse, and pet industries will also be covered. Guest speakers from the horse and pet care industries are an important part of this class. Field trips to horse and pet related businesses are also a part of this course.

**6340A**    **LARGE ANIMAL**

Prerequisite: None  
Grades: 10, 11, 12  
Semester/.5 credit

Provides fundamental knowledge of the large animal science field. Topics include animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and job-related safety. Students will experience animal concepts through the completion of hands-on activities.

**6350**     **FISH AND WILDLIFE MANAGEMENT I**

Prerequisite: None  
Grades: 9, 10, 11, 12  
Semester/.5 credit

In this course, students will learn a basic introduction of wildlife species including mammals, fish, birds, reptiles, and amphibians. Concepts covered in the course will include fish and game management principals, Wisconsin hunting and fishing laws, careers in wildlife management, bait and tackle, and archery. A unit in taxidermy will also be a core part of the class. Within this unit, students will have the opportunity to mount a panfish in class. During the bait and tackle unit, students will have the opportunity to create a fishing lure. Students will gain a greater knowledge of outdoor recreation in Wisconsin as well as an appreciate for the outdoors. The class will also include field trips, guest speakers, projects, and lab activities.

**6360**     **FISH AND WILDLIFE MANAGEMENT II**

Prerequisite: Fish & Wildlife Management I  
Grades: 10, 11, 12  
Semester/.5 credit

This course will be an extension of fish and wildlife management 1. Students will learn more in depth concepts related to wildlife management. Course material will focus on individual big game species found in Wisconsin. Advanced fish and game management techniques will be covered including population estimation and harvest management. Social and economic impacts of hunting, fishing, and outdoor related activities will be discussed. During the taxidermy unit, students will have the opportunity to mount a small mammal (squirrel) as well as deer antlers. Students will also have the opportunity to build their own fishing rod as part of the class. Students will further gain an understanding and appreciation of outdoor recreation in Wisconsin. The class will also include field trips, guest speakers, projects, and lab activities

**6370     FORESTRY**

Prerequisite: None

Grades: 10, 11, 12

Semester/.5 credit this course counts as .5 credit science elective

In this course, students will learn a basic introduction of forest principles and management. Concepts covered in this course will include tree structure, function, planting, care, and management of deciduous and coniferous trees. A large emphasis will be placed on tree identification, forest management techniques, fire control, chainsaw operation and safety, disease and insect control, as well as habitat improvement. Students will learn how basic forestry tools operate and have the opportunity to measure trees in various ways. The class will also include field trips, guest speakers, projects, and lab activities. The class will be involved with work at the school forest in Suamico.

**6380     NATURAL RESOURCE MANAGEMENT**

Prerequisite: None

Grades: 10, 11, 12

Semester/.5 credit this course counts as .5 credit science elective

Students will learn a basic introduction of natural resources, how humans utilize them, and why they are important to protect and conserve. Concepts in the course will include waste management, wetlands, water resources, air pollution, soil conservation, energy/alternative energy sources, agriculture, and environmental issues. Students will gain a greater understanding of Earth's natural resources as well as the importance of proper management and protection. Students will also address concerns of feeding a growing world population with dwindling resources. The class will also include field trips, guest speakers, projects, and lab activities.

**6390     BIOTECHNOLOGY FOR PLANTS, ANIMALS AND THE ENVIRONMENT**

Prerequisite: None

Grades: 10, 11, 12

Semester/.5 credit this course counts as .5 credit science elective

In this course, students will examine the fundamental applications of biotechnology in today's world. Course concepts will start out with an introduction of biotechnology and lead into the processes, products, and impact of biotechnology through a hands on approach. This will lead into more in depth topics including genetic engineering, animal reproduction techniques, cloning, plant tissue culture, and using microbes to clean up the environment. Students will gain a greater understanding of the challenges of feeding a growing world population and the need for biotechnology in today's society. The class will include field trips, guest speakers, and lab activities.

**6392     OUTDOOR RECREATION**

Prerequisite: None

Grades: 9,10, 11, 12

Semester/.5 credit

Outdoor Recreation will allow students the chance to learn principles of environmental education in relationship to outdoor recreation and stewardship of the land. Topics covered geocaching, how to use GPS coordinates and GPS units, orienteering, and the social and economic impacts of outdoor recreation. Students will also have the opportunity to earn DNR certifications in ATV safety, Snowmobile safety, Boaters' safety, Trapper education, and Hunter safety. For anyone who enjoys spending time outdoors, this is the class for you! A \$10.00 certification fee will be required for ATV, Boaters', Hunters', and Snowmobile certifications and a \$12.00 fee for Trappers' education.

**6391 SMALL GAS ENGINES**

Prerequisite: None

Grades: 10, 11, 12

Semester/.5 credit

In this course, students will learn a basic understanding of the principles of small gas engine operation. Concepts in the course will include small gas engine operation, trouble shooting, maintenance, repair, servicing, and safety. Students will also explore careers related to small gas engines and mechanics. Students will have the opportunity to work with one cylinder, Briggs and Stratton as well as Kohler small gas engines in class. Students will be required to completely tear down an engine and put it back together. The class will include field trips, guest speakers, and lab activities.

**006323 LANDSCAPE AND TURF MANAGEMENT**

Prerequisite: None

Grades: 10, 11, 12

Semester/.5 credit

Landscaping and Turf Management includes standards to prepare students for creating beautiful environments for homes and businesses. This course includes site analysis and preparation, landscape drawing, plant selection, and installation. Maintenance of healthy attractive landscapes and turf areas will be emphasized. With the increase of urban sprawl these career opportunities are increasing daily. Plant science and leadership skills taught in this class will prepare students to meet the demands of this exciting industry.

Landscape & Turf Management Course Outline

1. Introduction to Landscaping and Turf Management
2. Tree & Shrub Selection and Maintenance
3. Plant Selection and Maintenance
4. Turf Grass Selection and Maintenance
5. Commercial Interior Landscaping
6. Pest Management
7. Water Management
8. Landscape Design
9. Business Principles of Landscaping and Turf Management

**6731/6732 TE/AGRIBUSINESS CO-OP CLASS**

Prerequisite: At least one credit of agribusiness courses.

Exhibit a career interest in agriculture. Instructor approval.

Must have a grade point average of C or better in Ag classes.

Attendance record of not more than 18 days absent for the 11<sup>th</sup> grade.

Student is responsible for securing an Ag related job prior to start of school.

Consent of teacher/coordinator and an application is required.

Grade: 12

Year/ 1 credit

The classroom content of this course will include career planning, applications, resumes, personal data, advancement, worker relations, communications, employee attitudes, in correlation with the experience students will have on the job site.

**6741/6742 TE/AGRIBUSINESS CO-OP (WORK EXPERIENCE)**

Prerequisite: Must have 18 credits earned by the end of Grade 11.

Consent of teacher/coordinator and an application is required.

Grade: 12

Semester or Year/.5 credit through 2 credits

This course is designed to give Agribusiness students the option to explore a career in a local agribusiness. Students will have the chance to apply the skills and knowledge they have acquired in school courses. Students are released

to work at a work site during the afternoon. Hourly wages and high school credit are earned through on-the-job training in the afternoon. Students must work an average minimum of 15 hours per week.

**WORK EXPERIENCE CREDIT OPTIONS:**

Students may elect one of the following credit options for the work experience:

- 2 credits = Work release 3 periods all year
- 1 credit = Work release 2 periods all year
- 1 credit = Work release 3 periods one semester
- .5 credit = Work release 2 periods one semester
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