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**Farm Operations & Management – Crop Operations Program**

**Course Curriculum**

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| **Semester 01**   (Tuition: $2,500  Books: $210-$370) | | |
| **Course #** | **Course Title** | **Credits** |
| 10-006-116 | Introduction to Soils | 3 |
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| Credits: 3 Lecture Hours: 36 Lab Hours: 36 Course is designed to provide the student with fundamental knowledge of soil and soil composition. Students will study soil types, formation factors, physical properties, biological properties and basic soil chemistry. Units covering tillage, conservation, pH and soil management will also be included. Students will gain the skills required to interpret soil survey maps and recognize qualities of various soil types. The student will perform soil sampling, residue measurements, compaction assessments and soil loss determinations per crop rotation guidelines. | | |
| 10-006-121 | Agribusiness Computer Applications | 2 |
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| Credits: 2 Lecture Hours: 18 Lab Hours: 36 Students will develop skills in the use of agricultural applications of computer technologies including: Farmworks; creating and using spreadsheets in Excel; creating and using documents in Word; creating documents in Power Point; using email; using farm financial record keeping programs; using an IPAD and apps; and appropriate social media etiquette. | | |
| 10-006-160 | Plant Science | 3 |
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| Credits: 3 Lecture Hours: 36 Lab Hours: 36 Provides fundamental knowledge of plant components and their functions. Topics include pollinating and propagating plants, germinating seeds, plant nutrients, and factors affecting photosynthesis, respiration, and transpiration. Participants will experience plant components and their functions through the completion of hands-on activities. | | |
| 10-006-169 | Career Development in Agriculture | 2 |
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| Credits: 2 Lecture Hours: 18 Lab Hours: 36 Student will develop individual leadership and employment qualities, in addition to exploring the agricultural industry and available careers. Subjects to be covered include; personal evaluation, goal setting, career opportunities, career exploration, current issues in agriculture, employment preparation, and interviewing skills. Also included are units covering workplace regulations, employment seeking, and motivational styles and techniques. | | |
| 10-070-104 | Ag Safety, Electrical & Maintenance | 2 |
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| 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. | | |
| 31-801-310 | Workplace Communication | 2 |
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| Credits: 2 Lecture Hours: 36 Lab Hours: 18 Students apply oral, written, listening, and non-verbal skills to workplace situations. Students discover how to use communication as the key to solving workplace problems, resolving conflicts, working as members of a team, and effectively giving and receiving criticism. Students develop an understanding of diversity in the workplace, harassment issues, and the impact of substance abuse on the job. Prerequisites: Communication 1 (73-851-710), or An undeclared major student. | | |
| 31-804-305 | Applied Mathematics | 2 |
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| Credits: 2 Lecture Hours: 54 Students compute with rational numbers. They make and convert various measurements. Students use formulas to solve problems. They compute dimensions of geometric shapes. Students use statistical tools to represent and analyze data. They analyze various financial situations. Students use basic right triangle trigonometry to solve problems. In each topic area, students solve application problems. | | |
|  |  | **16** |
| **Semester 02**   (Tuition: $2,160  Books: $330-$500) | | |
| **Course #** | **Course Title** | **Credits** |
| 10-006-124 | Pesticide Applicator Training | 1 |
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| Credits: 1 Lecture Hours: 18 The learner will develop a strong understanding and basis of pest application training techniques, methods and standards used in the industry today. This class prepares students to take the Commercial Pesticide Applicator Certificating and Licensing exam category 1.1 Field and Vegetable Crops for the state of Wisconsin. | | |
| 10-006-126 | Pest ID & Mgt/Crop Scouting | 3 |
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| Credits: 3 Lecture Hours: 36 Lab Hours: 36 The student will learn and develop skills, practices, and principles of identifying and managing pests that are a problem for a variety of common regionally grown agricultural crops. The student will learn control measures and application; proper use and safety measures; how to identify insects, weeds, and diseases in crops; various stages of growth related to timeliness of treatment; and methods of applying control measures. The student will learn principles to follow regarding the different ways of crop scouting. | | |
| 10-006-180 | Animal Science | 3 |
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| 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. | | |
| 32-070-322 | Operations of Field Equipment | 3 |
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| Credits: 3 Lecture Hours: 36 Lab Hours: 72 Students learn the operating principles of production equipment used on crop, livestock and dairy farms in southwest Wisconsin. Emphasis is placed on understanding the principle of machine adjustments to achieve optimum efficiency of the machine with the overall goal of reducing downtime during that critical planting and harvesting season. Students will develop a pre-season maintenance schedule based off of equipment used on their farm. | | |
| 32-070-324 | On-Farm Machinery Maintenance | 1 |
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| Credits: 1 Lecture Hours: 18 Lab Hours: 18 Students will develop skills necessary to prepare farm equipment for the upcoming season applying information from the equipment’s owner’s manual to ensure the proper maintenance procedures are used to adjust the machine to achieve the best productivity it was designed for. During this process students will gain knowledge of common lubricants, service requirements, filters, belts, chains and implement drive systems. | | |
| 32-442-301 | Related Welding | 2 |
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| Credits: 2 Lecture Hours: 18 Lab Hours: 54 The student creates weldments in flat, vertical, horizontal, and overhead positions. These weldments will utilize SMAW, MIG, TIG, brazing and oxyfuel. All operations will adhere to AWS Code. | | |
|  |  | **13** |
| **Semester 03**   (Tuition: $440) | | |
| **Course #** | **Course Title** | **Credits** |
| 32-080-302 | Farm Operations & Management Internship | 3 |
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| 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 and task lists are followed. Pre-requisites: Animal Nutrition (10-006-104) or Pest ID & Management/Crop Scouting (10-006-126) or Machinery Maintenance (32-070-323) | | |
|  |  | **3** |
| **Total Credits: 32** | | |
| **Estimated Total Tuition: $5,100** | | |