**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

1. **GENERAL COURSE INFORMATION**

Course Number: AGRI 1216

Course Title: Farm Machinery and Technology

Credit Hours: 3

Prerequisites: None

Division/Discipline: Workforce Training & Community Education/Agriculture Business Management, Beef Cattle Production

Course Description: This course is designed to create basic competencies in operating beef cattle production equipment, including computer technology. Classroom work and field trips will increase student awareness and understanding of the function, operation, and maintenance of equipment used in the beef cattle industry. Equipment covered includes front-end loaders, skid steers, feed trucks, feed mills, and cattle handling equipment. Special emphasis is placed on safe equipment use and includes a thorough review of the Occupational Safety and Health Administration’s (OSHA) regulations for the beef cattle industry. As computer technology is a major component of the beef cattle production, emphasis is placed on computer related technologies and their role in the industry.

1. **INSTRUCTOR** **INFORMATION**
2. **COLLEGE POLICIES**

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. The student is responsible for learning the rules of, and avoiding instances of, intentional or unintentional plagiarism. Information about academic integrity is located in the Student Handbook.

The College reserves the right to suspend a student for conduct that is determined to be detrimental to the College educational endeavors as outlined in the College Catalog, Student Handbook, and College Policy & Procedure Manual. (Most up-to-date documents are available on the College webpage).

Any student seeking an accommodation under the provisions of the Americans with Disability Act (ADA) is to notify Student Support Services via email at [disabilityservices@bartonccc.edu](mailto:disabilityservices@bartonccc.edu).

1. **COURSE AS VIEWED IN THE TOTAL CURRICULUM**

This course is designed to increase the student’s understanding and literacy in the area of farm machinery and computer-based technology used in beef cattle production, and provides the student the basic background and knowledge for the efficient and safe use of this equipment. This course places special emphasis on compliance with OSHA regulations so students can insure they are complying with federal regulations.

1. **ASSESSMENT OF STUDENT LEARNING**

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

Course Outcomes, Competencies, and Supplemental Competencies:

1. Identify the function, operation, and maintenance of stationary equipment used in the beef cattle industry
2. Explain the physics and operation of feed mill design.
3. Describe the function, operation, and maintenance of the feed grinder and steam flaker.
4. Describe the proper use of feedstuff storage units—grain bins, bunker silos, feedstuff bays.
5. List and explain the safe operation and maintenance of the stationary equipment used in a beef cattle operation.
6. Identify the function, operation, and maintenance of mobile equipment used in the beef cattle industry.
7. List and describe equipment including the front end loader, skid steer, feed truck, and manure spreader.
8. Describe the function and basic operation of the mobile equipment used in the beef cattle industry.
9. List and explain the safe operation and maintenance of the mobile equipment used in a beef cattle operation.
10. Describe and explain the computer technology developed for and used by the beef cattle industry.
11. List and evaluate computer programs designed for cow-calf herd recordkeeping.
12. List and explain the computer programs available to manage feeding in feedlots, including ration formulation, bunk management, and feed truck delivery of feed.
13. Demonstrate the values derived from Standardized Performance Analysis computer programs in both the production and profitability of a cow/calf herd.
14. Describe the animal health programs used by feedlots to record individual treatment histories, maintain pen histories, and manage hospital treatment records.
15. List and explain regulations designed for the beef cattle industry by the Occupational Health and Safety Administration (OSHA).
16. Explain the function of OSHA in today’s workforce.
17. Describe the importance of OSHA regulations in the beef cattle industry workplace.
18. Recognize OSHA regulation application to work with employers in maintaining a safe workplace.
19. **INSTRUCTOR’S EXPECTATIONS OF STUDENTS IN CLASS**
20. **TEXTBOOKS AND OTHER REQUIRED MATERIALS**
21. **REFERENCES**
22. **METHODS OF INSTRUCTION AND EVALUATION**
23. **ATTENDANCE REQUIREMENTS**
24. **COURSE OUTLINE**