School District of Marshfield Course Syllabus

Course Name: DC Dairy Science PS
Grade(s): 10-12
Length of Course: Semester
Credit: 1/2 Credit

Course Description:

DC Dairy Science PS is a dual credit course that introduces the basics of livestock management. Learners will gain knowledge about careers, breeds, record-keeping, reproduction, milk secretion, feeding, housing, diseases, judging, selection and marketing of dairy animals and products. Participate in a field trip to learn how modern dairies operate and to test your judging skills.

MSTC Course Title: Intro to Animal Science

Course Number:	**MSTC 10-091-102**
Career Cluster:	**Agriculture, Food and Natural Resources**
Level:	**A.A.S. – Associate in Applied Science**
Total Hours:	**54** (Lecture)
Total Credits:	**3 upon successful completion of BOTH DC Animal Management PS and DC Dairy Science PS**

Employability Skills:

Behave responsibly – individually and cooperatively
Communicate effectively
Demonstrate cultural, social, and global awareness
Demonstrate effective critical and creative thinking
Use appropriate technology

Course Grading Information:

Grading Scale:

- A   92.5 – 100
- A-   89.5 – 92.49
- B+   86.5 – 89.49
- B   82.5 – 86.49
- B-   79.5 – 82.49
- C+   76.5 – 79.49
- C   72.5 – 76.49
- C-   69.5 – 72.49
- D+   66.5 – 69.49
- D   62.5 – 66.49
- D-   59.5 – 62.49
- F   < 59.49

Primary Resource(s):

Modern Livestock & Poultry Production, 9th Edition
Cengage Learning
ISBN: 978-113-3283-50-8
© 2015

Course Competencies

- Explain the importance of farm safety when working with dairy and livestock
  Domain: Cognitive   Level: Evaluating
- Analyze common diseases and parasites of dairy and livestock
  Domain: Cognitive   Level: Analyzing
- Compare the major breeds of dairy and livestock by body characteristics
  Domain: Cognitive   Level: Analyzing
- Select high quality dairy and livestock using generally accepted criteria
  Domain: Cognitive   Level: Evaluating
- Describe accepted management practices for the stages in the life cycles of dairy and livestock
  Domain: Cognitive   Level: Understanding

- Explain the reproductive system parts, functions, and hormones of dairy and livestock
  Domain: Cognitive   Level: Creating
- Explain the categories of pharmaceuticals and their uses in the dairy and livestock industries
  Domain: Cognitive   Level: Creating
- Model proper techniques in artificial insemination, administering medications, and basic suturing patterns
- Domain: Cognitive   Level: Creating

Dairy Science Course Outline

Course Description:
Gain knowledge about careers, breeds, record-keeping, reproduction, milk secretion, feeding, housing, diseases, judging, and marketing of dairy animals and products. Participate in a field trip to area dairy businesses to learn how modern dairies operate, and to test your judging skills. Learn how to make dairy products including cheese, yogurt and ice cream.

Learning Targets:
- Analyze various statistics showing the past, current and future trends of dairying.
- Demonstrate knowledge and proficiency in the breeding of dairy cattle.
- Choose the best feeds to maximize growth and production of dairy cattle.
- Analyze dairy herd records to determine profitability and recognize problems.
- Produce and evaluate quality dairy products.

Course Outline:
First Quarter
1) Understand the Dairy Industry
   a) Analyze the production, consumption, and technology trends in the dairy industry
   b) Name and describe breeds of dairy cattle and analyze their advantages and disadvantages
2) Explore the breeding of dairy cattle
   a) Select desirable breeding and production animals, and compose a set of oral reasons to defend your selections
   b) Identify the anatomy of a dairy animal
   c) Rank pedigrees in order of increasing value
   d) Describe the reproductive systems of dairy cattle
   e) Evaluate genetic proofs and selection of sires
   f) Illustrate the processes of embryo transfer, cloning, and other biotechnology tools used in dairying

Second Quarter
3) Analyze the feeding of dairy cattle
   a) Examine different feeds to illustrate why and how these are fed
   b) Explain the feeding of calves and heifers
   c) Describe the feeding of dry cows

d) Describe the feeding of a milking herd
4) Show the importance of milking management
   a) Summarize the process of milk production and secretion
   b) Identify ways to manage udder health
   c) Analyze the economic benefits of proper management
   d) Dairy Herd Management Report
5) Learn how to make quality dairy products including cheese, yogurt, and ice cream
6) Evaluate the quality of milk and cheese samples
7) Analyze the importance of record keeping and use of technology in modern dairy farming

Dual Credit Notification:

This is a dual credit course with Mid-State Technical College. The course outcomes for high school students are identical to the outcomes that students at Mid-State Technical College will be expected to achieve.

Mid-State Policies and Procedures

Credit Hour Expectations - Classroom presentations are specifically planned learning experiences based on identified objectives, direct instructor involvement, and instructional delivery through physical or electronic learning environments. Credit hour expectations are a combination of classroom presentation, lab and outside student effort as outlined in the Educational Services Manual from the Wisconsin Technical College System. The unique environment in online/hybrid classes combines the classroom presentation with the outside effort to an equivalent time expectation per credit. For specific lab and lecture credit hour for Associate Degree and Technical Diploma courses, please see the "Course Standards" section of the Educational Services Manual.

Employability Skills - In addition to specific job-related training, Mid-State has identified a set of employability skills that are transferable and go beyond the content of a specific course. The college supports the following skills for all graduates of Mid-State:

- Behave Responsibly Individually and Cooperatively
- Communicate Effectively
- Demonstrate Effective Critical and Creative Thinking
- Demonstrate Cultural, Social, and Global Awareness
- Use Appropriate Technology

Learner Roles and Responsibilities - You are an adult learner and as such you are responsible for your own learning. No one else can be a "stand in" for you in the learning process. You will be held accountable for all assigned activities. You matter and what you do does make a difference. You will have an opportunity to share your unique ideas and experiences with your student peers and instructor. The form and content of your participation will determine the level of achievement, satisfaction, and enjoyment that you experience. Because others are depending on you to keep the course moving, you have an obligation to meet deadlines for completing assignments and postings.

Academic Integrity Policy - The Mid-State Board, administration, faculty, and staff believe that academic honesty and integrity are fundamental to the mission of higher education. All students are expected to maintain and promote the highest standards of personal honesty and professional integrity. These standards apply to all examinations, assigned work, and projects. Therefore, a student who is found to have

been dishonest, fraudulent, or deceptive in the completion of work, willing to help others to be so, or is found to have plagiarized (presented the work of others as his or her own) is subject to disciplinary action up to and including suspension.

Exclusivity Statement - Mid-State Technical College is committed to complying with state and federal equal opportunity laws and regulations and does not discriminate in its services, employment programs, and/or its educational programs and activities. Discrimination and harassment by supervisors, co-workers, students, non-employees on the basis of race, sex, national origin, sexual orientation, age, religion, disability, or other protected class is prohibited by the College. This policy is intended to comply with all applicable state and federal laws, as well as express the College's commitment to the principles of equal opportunity for all.

Student Handbook - Refer to the Mid-State Student Handbook for more information related to student policies and procedures. mstc.edu/student-resources/student-handbook

Student Services - All students, including online students, have access to student services including but not limited to disability services, counseling and advising, career services, and financial aid. To access student services, go to mstc.edu/student-resources/student-services.