



ASCI 119: BREED/SELECT OF DAIRY CATTLE

Proposer:

Name:	Email:
Allison Vander Plaats	allisonv@cos.edu

Effective Term:

Fall 2022

Credit Status:

Credit - Degree Applicable

Subject:

ASCI - Animal Science

Course Number:

119

Catalog Title

Breeding and Selection of Dairy Cattle

Catalog Description

Principles of selection, reproduction, and management of reproduction and breeding in dairy cattle. This course covers both theory and practice of dairy cattle judging, semen evaluation and handling, and artificial insemination.

Advisory on Recommended Preparation:

DSCI 101 or equivalent college course with a minimum grade of C

Method of Instruction:

Distance Education (Emergency Addendum)

Laboratory

Lecture and/or Discussion

Course Units/Hours:**Course Units Minimum:**

3

Lecture Hours Minimum (week)

3

Lab Hours Minimum (week)

1

Activity Hours Minimum (week)

0

Total Contact Hours Minimum (semester)

70

Total Outside Hours Minimum (semester)

105

Total Student Learning Minimum Hours (semester)

175

Repeatability:

No

**Open Entry/Exit:**

No

Field Trips:

Required

Grade Mode:

Standard Letter

TOP Code:

010230 - * Dairy Science

SAM Code:

C - Clearly Occupational

Course Content**Methods of Assessment:**

Essay quizzes or exams
 Multiple choice tests
 Oral presentations
 Problem solving assignments or activities
 Short answer quizzes or exams
 Skill demonstrations

Course Topics:

Course Topics	
1	Dairy judging & body condition scoring
2	Basics of genetics and genomics
3	Sire summaries and interpretation for selection
4	Reproductive anatomy of the cow and bull
5	Estrous cycle, estrus synchronization, and estrus detection
6	Semen handling & quality evaluation
7	Overview of assisted reproductive technologies, including superovulation, embryo transfer, and cloning
8	Theory and technique of artificial insemination

Course Objectives:

Course Objectives	
1	Label and describe the parts of both cow and bull reproductive anatomy
2	Name and describe the function of hormones in the estrous cycle and estrus synchronization
3	Describe and demonstrate artificial insemination technique
4	Describe the process of semen extending and demonstrate semen handling
5	Explain sire summaries and their use in matings
6	Describe the use of genomics in today's dairy industry and its effect on breeding decisions

Course Outcomes:

Course Outcomes	
1	Upon completion of this course, students will be able to identify cows in heat, with or without the use of estrus detection aids
2	Upon completion of this course, students will be able to justify breeding decisions based on sire summaries
3	Upon completion of this course, students will be able to demonstrate proper preparation for bovine artificial insemination, including AI gun handling, semen thawing & handling, & cow preparation



- 4 Upon completion of this course, students will be able to identify female reproductive anatomy, including the vulva, vagina, cervix, uterine horns, & ovaries

Assignments:

Assignment Type:	Details
Reading	Students will read and interpret pedigrees and sire summaries, and answer questions related to information available. Students will also be asked to make breeding decisions based on available sires, and justify their breeding choices.
Writing	Students will write procedural reports for semen thawing, artificial insemination, and heat detection. This will be done in a bullet point or short answer format.
Homework	Students will complete Punnett square problems provided by the instructor. Students will then create their own Punnett square problems for classmates to solve.
Lab	Students will correctly identify a straw of semen by NAAB code, thaw semen straw using proper thaw technique, and load it into artificial insemination gun.

Textbooks or other support materials

Resource Type:	Details
Web/Other	Holstein Foundation publications, including Dairy Judging, Pedigree Questions & Answers, Dairy Cattle Reproduction (publication dates 2016-2018)
Books	ABS AI Manual, 6th ed. 2011

Transferable to CSU

Yes - Approved

CSU General Education

Transferable to CSU

This course will also be proposed for UC transfer.

Yes

Other Degree Attributes

Degree Applicable
Zero Textbook Cost
Not a Basic Skills Course

Additional Attachment

DSCI104 DLA.pdf
Prefix Change DSCI.pdf

Banner Title:

Breed/Select of Dairy Cattle

Curriculum Committee Approval Date:

03/04/2022

Academic Senate Approval Date:

03/23/2022

District Governing Board Approval Date:

04/18/2022

Course Control Number:

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