

ORIGINAL

APPROVAL FORM FOR  
**COURSES**  
MISSISSIPPI STATE UNIVERSITY

**RECEIVED**

8/26/10

NOTE: This form is a cover sheet that must accompany the course change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted, along with all required copies, to UCCC, Butler-Williams Building, Suite B, 100 Walker Road (Mail Stop 9699).

College or School: **Ag & Life Sciences**      Department: **Animal and Dairy Sciences**  
Contact Person: **Ann Marie Leed**      Phone: **5-5208**      E-mail: **amleed@ads.msstate.edu**  
Nature of Change: **Modify**      Date Initiated: **9/2009**      Effective Date: **1/2011**

Current Listing in Catalog:  
Symbol      Number      Title      Credit Hours  
ADS      3213      Performance Analysis of Meat Animals      (3)

**Current Catalog Description:**

Fall Semester. One hour lecture. Four hours laboratory. Productive evaluation of livestock as meat animals directly related to carcass value and economics of production.

New or Modified Listing for Catalog:  
Symbol      Number      Title      Credit Hours  
ADS      3213      Livestock Growth, Development and Evaluation      (3)

**New or Modified Catalog Description:**

Two hours lecture. Two hours laboratory. (Prerequisite ADS 1114.) Growth and development of livestock animals from embryo to harvest. The evaluation of meat animals related to the livestock industry and the value of production.

Approved: Tony E. Kiser  
Department Head

Date: 8-23-10

[Signature]  
Chair, College or School Curriculum Committee

8-23-10

[Signature]  
Dean of College or School

8/26/10

[Signature]  
Chair, University Committee on Courses and Curricula

9/27/10

Chair, Graduate Council (if applicable)  
[Signature]  
Chair, Deans Council

October 15<sup>th</sup>, 2010

## COURSE MODIFICATION

### *Department of Animal and Dairy Sciences*

#### **1. CATALOG DESCRIPTION**

**Current Course:** ADS 3213: Fall Semester. One hour lecture. Four hours laboratory. Productive evaluation of livestock as meat animals directly related to carcass value and economics of production.

**New Course:** ADS 3213: Two hours lecture. Two hours laboratory. (Prerequisite ADS 1114.) Growth and development of livestock animals from embryo to harvest. The evaluation of meat animals related to the livestock industry and the value of production.

#### **2. ITEMIZED LIST AND DESCRIPTION OF CHANGES**

- a. The course title change reflects the current livestock industry language.
- b. The course description change mirrors the livestock industry standards.
- c. The change from one lecture hour, four hours laboratory to two hours lecture, two hours laboratory will allow more time to be spent providing the students background information on laboratory topics.
- d. A prerequisite is being added to this class.

#### **3. JUSTIFICATION AND LEARNING OUTCOMES**

##### Justification:

The modification of this course title and description is necessary to more accurately convey the subject matter presented to students in ADS 3213 and reflects current industry terminology. The prerequisite of ADS 1114 is necessary due to the terminology used in ADS 3213. It is necessary for students enrolled in ADS 3213 to have the basic background knowledge associated with cattle, sheep and swine production which students are exposed to in ADS 1114. Modification of method/hours of instruction, will allow more time to be spent preparing students in a lecture setting for laboratory activities. For example after several semesters of instructing this course, it has been realized that students lack the basic understanding of muscle development, muscle contraction and growth; which severely hinders their ability to gain knowledge under the current set-up. By increasing the amount of time spent in lecture, students will have greater exposure to these processes which will allow them to be more successful during laboratories. Additionally, the modification from a four hour laboratory to a two hour laboratory will be beneficial as under the current set-up many of the labs are repeated because of a lack of livestock. This change will allow the instructors to create more meaningful laboratories and allow for better use of available livestock.

##### Learning Outcomes:

- a. Understand the history of cattle, sheep and swine in the United States and how that history relates to the livestock industry today.

- b. Gain knowledge on muscle structure, adipose tissue and growth technology and how it affects livestock.
- c. Understand the impact stress has on meat quality.
- d. Gain hands-on skills implanting cattle and yield and quality grading cattle and lambs.
- e. Develop the ability to price livestock carcasses.

#### **4. ADDITIONAL INFORMATION**

a. COURSE SYMBOL: Course symbols are not being modified.

b. COURSE NUMBER:

i. First Digit: There will be no change to the first digit (3).

ii. Second and Third Digit: There will be no change to the second (2) and third digit (1).

iii. Fourth Digit: There will be no change to the fourth digit (3).

c. COURSE TITLE: The course title will be changed to Livestock Growth, Development and Evaluation.

d. CREDIT HOURS: The credit hours for this class will remain unchanged.

e. PREREQUISITE: The prerequisite for this class will be modified to ADS 1114.

i. ADS 1114 is an introductory course in Animal and Dairy Science. ADS 1114 presents the basic terminology and practices related to production and marketing of cattle, sheep and swine.

f. METHOD/HOURS OF INSTRUCTION: The class will change from one hour lecture, four hours laboratory to two hours lecture, two hours laboratory.

g. METHOD OF DELIVERY: There will be no modification to the method of delivery.

h. COURSE DESCRIPTION: The course description for this course will be changed to more accurately reflect the current livestock industry language. The description will provide a clearer understanding of the material addressed in the course.

i. Current description: Fall Semester. One hour lecture. Four hours laboratory. Productive evaluation of livestock as meat animals directly related to carcass value and economics of production.

ii. Modified description: Two hours lecture. Two hours laboratory. (Prerequisite ADS 1114.) Growth and development of livestock animals from embryo to harvest. The evaluation of meat animals related to the livestock industry and the value of production.

i. COURSE CONTENT: The course content will not be modified.

#### **5. GRADUATE STUDENT REQUIREMENTS**

None

## 6. METHOD OF EVALUATION

- Exams 600 points (40%)
  - 3 exams worth 200 points/exam
- Final exam 400 points (26.7%)
- Project 300 points (20%)
- Laboratory reports 100 points (6.7%)
- Homework assignments 50 points (3.3%)
- Attendance 50 points (3.3%)
- TOTAL POINTS: 1500 points (100%)

### *Grading:*

<u>Total points</u>	<u>Letter Grade</u>
1500-1350	A
1349-1200	B
1199-1050	C
1049-900	D
899 – Lower	F

## 7. OUT OF CLASS WORK

- a. Project: Students will select a topic from an approved list of growth and development topics. A five page written scientific paper will be turned in along with a 20 minute presentation.
- b. Laboratory reports: Assigned after certain laboratories and are due the following class period.
- c. Homework assignments: Assigned during lecture and are due the following class period.

## 8. SUPPORT

Adequate resources are currently available to support this course.

## 9. EFFECTIVE DATE

01/2011

## 10. PLANNED FREQUENCY

This course will be offered every fall semester.

## 11. PROPOSED 24 CHARACTER ABBREVIATION

Growth Development Eval

## 12. PROPOSED SEMESTER EFFECTIVE

Fall 2011

## 13. PROPOSAL CONTACT PERSON

Ann Marie Leed  
Department of Animal and Dairy Sciences  
[amleed@ads.msstate.edu](mailto:amleed@ads.msstate.edu)  
662-325-5208

## **CURRENT**

### **Performance Analysis of Meat Animals Syllabus and Schedule ADS 3213**

**Class Time:** Monday 1:00-2:50pm and Thursday 12:30-3:20pm

**Location:** Ballew 119 (but please refer to instructors' directions concerning class location)

<b>Instructors:</b>	Dr. Ty Schmidt 4016 Wise Center 662-325-2934 <a href="mailto:TSchmidt@ads.msstate.edu">TSchmidt@ads.msstate.edu</a>	Ann Leed 4029 Wise Center 662-325-5208 <a href="mailto:amleed@ads.msstate.edu">amleed@ads.msstate.edu</a>
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**Office Hours:** Monday-Friday: Open door policy (door open come in: Dr. Schmidt)  
Monday 10:30-12:30 and Wednesday 1:00-3:00 (Ann Leed)

**Supplies need for class:** Each student will need a clip board and a calculator for each class period.

**Appropriate Dress for class:** Students will need to dress appropriately for labs at the meat lab. Students cannot wear open toed shoes in the meat lab. Students may not wear shorts or skirts to lab when in the meat lab; this is a food safety issue and a USDA rule. All visible jewelry must be removed prior to lab. If the jewelry cannot be removed it must then be covered with tape. Students attending lab with inappropriate clothing or shoes will have to leave lab and can only return when they are properly dressed. For lectures and labs held outside there is no dress code, however students are cautioned to wear clothes that are comfortable depending on the weather.

**Course Catalog Description:** Productive evaluation of livestock as meat animals directly related to carcass value and economics of production.

**Attendance:** Students are expected to attend all lectures and labs. For exams, the only excused absences are 1) illness (requires note from doctor) 2) death in the family or 3) official university functions (requires official note given to instructors prior to absence).

**Lab Reports and Homework:** Lab reports and homework assignments allow students to demonstrate their understanding of the material. With certain laboratories and lectures, the students will be given an assignment. These assignments will be due at the start of the following class period.

**Late Assignments:** All assignments are due at the start of class and are worth 10% of final grade. Assignments that are turned in after class has started will be docked 10%. Assignments turned in one day late will be docked 20% of the assignment grade, two days late will be docked 40% of assignment grade, and three days late will dock 100% of assignment grade. This applies to all assignments.

**Exams:** There will be three exams. Each exam will be worth 200 points.

**Final Exam:** This exam will be a comprehensive exam (cover all lectures and labs) and is worth 400 points.

**Research Project:** Students will select a topic from an approved list of topics related to the course. A five page written scientific article will be turned in along with a 20 minute presentation. The project is worth 300 points.

#### **Points Distribution:**

- Exams 600 points (40%)
  - 3 exams worth 200 points/exam
- Final exam 400 points (26.7%)
- Project 300 points (20%)
- Laboratory reports 100 points (6.7%)

- Homework assignments 50 points (3.3%)
- Attendance 50 points (3.3%)
- TOTAL POINTS: 1500 points (100%)

**Grading:**

Total points	Letter Grade
1500-1350	A
1349-1200	B
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1049-900	D
899 – Lower	F

**Honor Code:**

“As a Mississippi State University student I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do.” Academic Operating Policy and Procedure 12.07  
<http://www.msstate.edu/dept/audit/1207A.html>

**Cell Phone and Electronic Policy**

In accordance with Academic Operating Policy 10.08 and in order to limit classroom disruptions, as well as to protect against academic misconduct, the use by students of cell phones, messaging devices, and other electronic devices is prohibited. In this class students are required to put cell phones on the silent mode and stow in backpacks while attending class; this includes Bluetooth headsets. On quizzes and exams cell phones may not be used as calculators or clocks. A copy of AOP 10.08 is available online at <http://www.msstate.edu/dept/audit/1008.html>. All iPods, MP3 players, and other electronic devices must be turned off and stowed in backpacks while in class.

**Lab Schedule:**

Lab #1	Introduction to Course
Lab #2	Orientation to the Meat Lab (Carcass)
Lab #3	Orientation to MSU South Farm (Live)
Lab #4	Evaluation of fat cattle for muscle (Live)
Lab #5	Evaluation of fat cattle for fat deposition (Live)
Lab #6	Beef Quality and Yield Grades (Carcass)
Lab #7	Evaluation of cull cows (Carcass)
Lab #8	Ultrasounding cattle (Live)
Lab #9	Ultrasounding cattle (Live)
Lab #10	Processing beef carcasses (Carcass)
Lab #11	Break down of muscle of beef carcasses (Carcass)
Lab #12	Stockyard tour
Lab #13	Beef cattle pricing game
Lab #14	Beef cooking
Lab #15	Midterm Exam
Lab #16	Evaluation lambs (Live)
Lab #17	Evaluation lambs (Live)
Lab #18	Evaluation lambs (Carcass)
Lab #19	Pricing lamb carcasses
Lab #20	Swine evaluation (Live)
Lab #21	Swine evaluation (Carcass)
Lab #22	Evaluation swine (Carcass)
Lab #23	Fabrication of swine carcasses
Lab #24	Swine pricing game

**Lecture Schedule:**

Lecture #1	Overview of Meat Lab
Lecture #2	Muscle and fat evaluation in fat cattle

Lecture #3	Beef Quality and Yield Grades
Lecture #4	Ultrasound technology in cattle
Lecture #5	Processing beef carcasses
	Exam #1
Lecture #6	Stockyard tour
Lecture #7	Beef cattle pricing
Lecture #8	Overview of live evaluation of lambs
Lecture #9	Overview of carcass evaluation of lambs
Lecture #10	Overview of live swine evaluation
	Exam #2
Lecture #11	Overview of carcass swine evaluation
Lecture #12	Pricing swine carcasses
Lecture #13	Muscle structure
	Exam #3
Lecture #14	Adipose development

## **PROPOSED**

### **Livestock Growth, Development and Evaluation Syllabus and Class Schedule ADS 3213**

**Class Time:** Monday 1:00-1:50pm – Lecture  
Wednesday: 1:00 – 1:50 – Lecture  
Thursday 1:00-3:20pm - Laboratory

**Location:** Ballew 119

<b>Instructors:</b>	Dr. Ty Schmidt	Ann Leed
	4030 Wise Center	4029 Wise Center
	662-325-2934	662-325-5208
	TSchmidt@ads.msstate.edu	amleed@ads.msstate.edu

**Office Hours:** Monday-Friday: Open door policy (door open come in: Dr. Schmidt)

**\*\*Please do not come in before 7:00 AM\*\***

Monday - Thursday 8:00 am – 10:00am (Ann Leed)

**Textbook:**

There is no required textbook.

**Course Catalog Description:**

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**Supplies Required for Class:**

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Any student caught cheating on an exam, stealing, or plagiarizing on group projects will automatically be referred to the Honor Code Council.

**Lecture Schedule:**

Lecture 1	Introduction
Lecture 2	Growth and Development of Livestock
Lecture 3	Muscle Structure
Lecture 4	Muscle Structure / Contraction
Lecture 5	Muscle Contraction
Lecture 6	Adipose Deposition
Lecture 7	Adipose Deposition
Lecture 8	Growth Enhancement Technology
Lecture 9	Growth Enhancement Technology
Lecture 10	Growth Enhancement Technology
Lecture 11	US Beef Industry
Lecture 12	US Beef Industry
Lecture 13	Beef Quality Grading
Lecture 14	Beef Yield Grade
Lecture 15	Value Based Pricing
Lecture 16	Value Based Pricing
Lecture 17	TSE - BSE
Lecture 18	TSE - BSE
Lecture 19	US Pork Industry
Lecture 20	Pork Grading and Percent Lean Grids
Lecture 21	US Lamb Industry
Lecture 22	Lamb Quality and Yield Grade
Lecture 23	Impact of Stress on Meat Quality

Lecture 24	Impact of Stress on Meat Quality
Lecture 25	Muscle Color
Lecture 26	Muscle Color
Lecture 27	Palatability of Meat Products
Lecture 28	Safety of Meat Products
Lecture 29	Safety of Meat Products
Lecture 30	Final Exam Review

***Lab Schedule***

Lab 1	Introduction to Lab and Research Project
Lab 2	Skeletal Anatomy – Adipose Anatomy
Lab 3	Muscle Anatomy
Lab 4	Muscle Anatomy
Lab 5	Exam #1
Lab 6	Implant Lab
Lab 7	Live Evaluation of Beef Cattle
Lab 8	Temperament and Animal Handling
Lab 9	Exam #2
Lab 10	Live Swine Evaluation
Lab 11	Value Based Pricing of Beef
Lab 12	Swine Fabrication and Pricing, Live Lamb Evaluation
Lab 13	Exam #3
Lab 14	Lamb Carcass Evaluation and Pricing