### http://kingsriverlife.com/wp-content/uploads/2014/10/reedleycollege.jpg

### *Spring 2022*

### AS 1

Introduction to Animal Science

### Syllabus

**Course Name: AS 1 Section Number: 59080 Units:** 03

**Total Contact hours: 54.00**

**Instructor:** Mr. Martin Castro

**E-mail: martin.castro@reedleycollege.edu**

**Office Hours:** By Appointment Only

**Class Meeting: M-F 11:00 - 11:50am**

**Course Description:** This course is a survey of the livestock industry, the supply of animal products and their uses, with a special emphasis on the origin, characteristics, adaptation, and contributions of farm animals to the agriculture industry. This course will analyze the economic trends and career opportunities in animal agriculture.

**Course Goals and Student Learning Outcomes:**

* Defend an opinion relative to the agricultural practice of raising animals for human use.
* Outline animal husbandry practices that are consistent with industry approved quality assurance programs and that promote animal well-being, production efficiency, sustainability, and consumer acceptance.
* Trace animal-based retail products from their original point of production, through the processing and marketing chains, to the consumer.

**Objectives:**

*In the process of completing this course, students will:*

* The student will:
* List animal contributions to human needs.
* Identify the major breeds of farm animals and list their respective economically important contributions.
* Identify external and internal anatomical features of livestock using appropriate terminology and relate their functions.
* Explain the timelines and biological principles associated with animal reproduction cycles and growth.
* Name marketing strategies and market classifications of livestock.
* Understand animal behavior as it relates to health and performance.
* Discuss major issues, trends, and challenges facing the livestock industry.
* Identify cultural contributions to and ethnic influences on the animal industry.
* Identify career opportunities and requirements for successful employment.
* Describe the major segments of the livestock industry.

**Required Text:**

1. Textbooks:
   1. **Recommended** Taylor, Robert E., Field, Tom G.. *Scientific Farm Animal Production*, 11th ed. Prentice Hall, 2016
   2. **Recommended** Damron, W. Stephem. *Introduction to Animal Science*, 5th ed. Prentice Hall, 2012
2. Materials Other than textbooks:
   1. **Recommended** instructor-prepared materials
   2. **Recommended** Various Internet Resources

**Students Responsibility:**

* Students are strongly advised not to miss labs since this time may be difficult or impossible to make them up.
* No makeup’s will be allowed unless by prior permission of the instructor.
* Cleanup of the shop is part of the laboratory exercise. Students not participating in shop cleanup will have points deducted from their project grades.
* No written assignments will be accepted after 2 weeks past the due date. Late assignments are subject to a 20% penalty. No lab projects will be accepted after the final exam.
* Handouts will be given in almost every class or laboratory.

**Lecture Content:**

* Introduction to Animal Agriculture
  + Importance of livestock to the World and United States
  + Economic importance to agriculture
  + Animal contributions to human needs
  + Industry issues and challenges
  + Ethnic contributions
* Careers and Career Preparation in the Animal Sciences
  + Career preparation
  + Employment opportunities in animal production and management
  + Employment opportunities in international agriculture
  + Future opportunities
* Overview of the Livestock Industry
  + The beef cattle and dairy industry
  + The swine industry
  + The sheep and wool industry
  + The poultry industry
  + The horse industry
* Evaluation and Performance of Livestock
  + Identifying external anatomy
  + Evaluating type and conformation
  + Perspective of carcass composition to the live animal
  + Understanding carcass and performance data
* The Animal Food Industry
  + Food products and processing
  + Consumption and marketing strategies
  + Trends and future outlook
  + Health and nutritional considerations
* Reproduction
  + Reproductive organs and their functions
  + Animal breeding
  + Mating systems
  + Fertility
* Genetics
  + Fertilization
  + Gene modification and interactions
  + Genetic improvement and variation
  + DNA and RNA
* Nutrition
  + Nutrients
  + Feeds and feed composition
  + Digestive systems
  + Growth and development
* Animal Health
  + Prevention and the environment
  + Major diseases of farm animals
  + Detecting unhealthy animals
  + Treatment and care
* Issues Affecting the Animal Industry
  + Animal behavior
  + Animal welfare
  + Advances in biotechnology
  + Government and environmental concerns
  + Food safety and consumer awareness

**Tentative Schedule:**

|  | **Topic/Unit** |
| --- | --- |
| * Week 1- | Introduction to Animal Science Agriculture |
| * Week 2- | Issues in the Animal Science Industry |
| * Week 3- | Careers in Animal Science |
| * Week 4- | The Livestock Industry |
| * Week 5- | Evaluation of Livestock and Performance of Livestock |
| * Week 6- | Animal Food Industry |
| * Week 7- | Meat Science and Food Industry |
| * Week 8- | Animal Health |
| * Week 9- | Animal Health-diseases |
| * Week 10- | Animal Treatment and Care |
| * Week 11- | Reproduction |
| * Week 12- | Animal Breeding |
| * Week 13- | Genetics |
| * Week 14- | Genetics and Improvements |
| * Week 15- | Nutrition and Nutrientr |
| * Week 16- | Feeds and Feeding |
| * Week 17- | Growth Development and Digestion |
| * Week 18- | Final |

\***You will be responsible for completing the multiple choice sections of all unit assignments on a scantron sheet (882) or Canvas online quiz platform**

**Subject to Change:**

This syllabus and schedule are subject to change. If you are absent from class, it is your responsibility to check on any changes made while you were absent.

**Evaluation:**

Students will be evaluated on the basis of their performance on quizzes (announced and unannounced), written assignments, unit tests, lab projects and final examination according to the following scale. The instructor reserves the right to adjust scores as it may be required throughout the semester.

Unit Assignments 10%

Tests & Quizzes 20%

Projects 40%

Final Exam 20%

Your grade in this course will be based on the following scale:

A – 90 – 100%

B – 80 – 89%

C – 70 – 79%

D – 60 – 69%

F – 59% and below

**Attendance**

Lecture: Attendance is required and roll will be taken at each class meeting. There is no difference between an “excused” or “unexcused” absence. A “tardy” is considered an absence unless the student contacts the instructor at the end of class to change the status from absent to tardy. Two tardies will count as an absence. Any student who misses more than two weeks of class meetings within the first 9 weeks of class may be dropped from the class by the instructor (i.e., class meets two times per week, 4 absences; class meets 1 time per week, 2 absences).

Lab: Attendance in all labs is mandatory. Students must make prior arrangements with the instructor to be excused from lab. At that time, the instructor will determine, if any, make-up work will be appropriate.

Quizzes: There will be no make-ups for quizzes.

Tests: Make-up tests are limited to students who have made arrangements with the instructor prior to the required testing period or those students who have been excused by High School Attendance Office. Test material is constructed from class discussions, assigned readings, guest lectures, video presentations, and special assignments. Tests will consist of true/false and multiple choice questions. Unless the student receives prior approval from the instructor, no make-up tests will be allowed.

**Grading Policy/Scales/Evaluation Criteria**

For maximum point consideration, all written assignments and term reports should be typed and double-spaced. Lecture assignments (homework) will be accepted late up to the test for that unit of the course or 2 weeks past the deadline, whichever is sooner; however, late assignments will be penalized 1/5 of the possible points. Late laboratory assignments turned in within one week of the required due date will be accepted with a penalty equal to 1/5 of the maximum points. Any lab assignment turned in after that time up to the last regular class meeting will be accepted with a 50% penalty.

**College Policies:**

**Cheating & Plagiarism**

In keeping with the philosophy that students are entitled to the best education available, and in compliance with Board Policy 5410, each student is expected to exert an entirely honest effort toward attaining an education. Violations of this policy will result in disqualification for the course.

**Cheating is:**

1. Copying someone else’s class work or letting someone copy you, when your teacher tells you that the work is to be done on your own (includes asking/telling orally).
2. Copying answers on a test or letting someone copy from your test (includes asking/telling orally).
3. Using a cheat sheet or unauthorized notes.
4. Turning in someone else’s work as your own.
5. Text messaging and multi-media messaging.

**Consequences, Per School Year:**

***1st Offense -*** The teacher shall send a referral to office. Student shall receive an “F” or zero on the work or the test and a one (1) day suspension or Saturday School, parent contact required.

***2nd Offense -*** The teacher shall send a referral to the office. The student shall receive an “F” or zero on the work or the test and a one (1) day suspension with parent contact required. Student placed on honesty contract. A high school student shall be removed to a study hall/or alternative class with a “W/F” for the semester.

***3rd Offense -*** Recommendation for transfer.

Instances of cheating need not be confined to one (1) class. Each of the three (3) offenses could happen in a different class. Any student who is transferred to a study hall/or alternative class and then required disciplinary removal from the study hall/or alternative class shall be transferred to an alternative school site/program.

Each student is expected to assist in the overall environment of the classroom making it conducive to learning.

**Accommodations for Students with Disabilities**

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact the instructor as soon as possible.

**Reedley College is committed to creating accessible learning environments consistent with federal and state law. To obtain academic adjustments or auxiliary aids, students must be registered with the DSP&S office on campus. DSP&S can be reached at (559) 638-3332.  If you are already registered with the DSP&S office, please provide your Notice of Accommodation form as soon as possible.**

**Work Ethic -** Most students are enrolled in college classes to obtain a quality job or to enhance their skills for advancement with their current employment situation. Employers look for a punctual, responsible individual who is prepared to go to work. Our goal is to replicate the workplace environment where a student can develop and demonstrate these desirable traits.

* Punctual: It is customary to arrive at least 5 minutes before work begins. Individuals will be terminated if they are not punctual.
* Responsible: It is expected than an employee works every scheduled work day. Individuals will be terminated if they are not responsible.
* Prepared: It is expected that an employee be prepared with he/she arrives for work. Students must have work shirts, safety glasses, and appropriate footwear to participate in the laboratory. If a student is not prepared, he/she cannot participate and will receive a zero (see “responsible”).

**Language -** English is expected to be spoken in class for the following reasons:

* All course content and materials are presented in English and class discussions all take place in English.
* All lab activities are conducted in groups and must have effective communication between all group members.
* Activities can be hazardous and it is vital that instructors receive feedback in English to ensure safe practices.
* This policy is designed so that instructors and all students may communicate in a common language.
* All individuals must have freedom of expression and are allowed and encouraged to communicate in the language of their choice outside of class times, including breaks.

**Behavioral Standards**

* Each student is responsible for his/her own work. Written assignments are not group assignments and no credit will be awarded for students who turn in the same work. Students suspected of cheating on tests and quizzes will receive no credit for that particular assignment and may be removed from the class.
* It is considered polite to turn off cell phones when in the classroom or shop. Please do so.
* There is no smoking, chewing tobacco, alcohol, or drugs allowed in classrooms, shops, or school vehicles.
* This class is set for the semester. All doctor’s appointments, interviews, meetings with counselor, and other types of appointments should be scheduled during your time outside of class.

| Important Dates for Spring 2022 | | |
| --- | --- | --- |
| **DATE** | **DAY** | **EVENT / DEADLINE** |
| 3-Jan | (M) | Campus re-opens after Winter Break |
| 7-Jan | (F) | Last day to add a full-term Spring 2022 class in person or online through WebAdvisor 5:00 p.m. |
| 10-Jan | (M) | Start of Spring 2022 semester |
| Jan 10 - Mar 11 | (M-F) | Short-term classes, first nine weeks |
| 17-Jan | (M) | Martin Luther King, Jr. Day observed (no classes held, campus closed) |
| 21-Jan | (F) | Last day to drop a Spring 2022 full-term class for full refund |
| 28-Jan | (F) | Last day to register for a Spring 2022 full-term class in person w/ authorization code |
| 28-Jan | (F) | Last day to drop a Spring 2022 full-term class to avoid a “W” in person |
| 30-Jan | (Su) | Last day to drop a Spring 2022 full-term class to avoid a “W” on WebAdvisor |
| 30-Jan | (Su) | Last day to add a Spring 2022 full-term class with an authorization code on WebAdvisor |
| 18-Feb | (F) | Lincoln Day observance (no classes held, campus closed) |
| 21-Feb | (M) | Washington Day observance (no classes held, campus closed) |
| 11-Feb | (F) | Last day to change a Spring 2022 class to/from Pass/No-Pass grading basis |
| 1-Mar | (T) | Deadline to apply for graduation for Spring 2022 completion |
| 11-Mar | (F) | Last Day to drop a full-term class (letter grades assigned after this date) |
| Mar 14 - May 20 | (M-F) | Short-term classes, second nine weeks |
| Apr 11 – April 15 | (M-Th) | Spring recess (no classes held, campus open) |
| 15-Apr | (F) | Good Friday observance (no classes held, campus closed) (classes reconvene April 18) |
| May 16-20 | (M-F) | Spring 2022 final exams week |
| 20-May | (F) | End of Spring 2022 semester/commencement |
| 30-May | (M) | Memorial Day holiday (campus closed) |

\*\* Withdrawal (W): A student will be assigned a grade of “W” for classes dropped on or after 20 percent of the duration of the class, up to and including 50 percent of the duration of the class. After the 50 percent point, the student must receive a letter grade other than a “W” (i.e., A, B, C, D, F, I, P, NP). Check with your instructor for the deadline applicable to your class.

**SAMPLE HOMEWORK/OUT OF CLASS ASSIGNMENTS**

**Reading Assignments**

*Sample assignments:*

Access the American Meat Institute (AMI) Website to obtain current information regarding U.S. per capita consumption of meat products.

**Writing Assignments**

*Sample assignments:*

Essay Question: You are walking through the Reedley College Campus when two people approach you identifying themselves as members of an animal rights group. They place some literature in your hands regarding their organization’s positions on the production and harvesting of animals for food. They proceed to tell you that killing animals for food is a shameful practice that should be outlawed. They argue that all livestock are mistreated on large factory farms where they live miserable lives and that these farms pollute the environment. They argue further that the meat products resulting from modern food animal production are unhealthy to consume and are full of fat and toxins. Respond fully to these arguments.

**Sample Career Assignment:**

***AS 1 – General Livestock Production***

**Career Exploration Assignment**

| Student Name: |
| --- |
| Current Major: |
| Semester/Year Started at Reedley College: |
| Primary Career Goal: |
| Back-Up Career Option: |
| Education Required for Your Primary Career Choice:   | ***✔*** | ***Level(s) of Education Required*** | ***No. of Years to Complete*** | ***School/Institution***  ***You Plan to Attend (Preference)*** | | --- | --- | --- | --- | |  | High School Diploma/GED |  |  | |  | Certificate Program |  |  | |  | AS Degree (Associates) |  |  | |  | BS Degree (Bachelors) |  |  | |  | MS Degree (Masters) |  |  | |  | PhD Degree (Doctorate) |  |  | |  | Other: |  |  | |
| Indicate the type of work experience you will need to gain in order to achieve your career goal (In other words, what type(s) of part-time and/or seasonal jobs and/or internships could assist you in obtaining the skills that you will need?). |
| Salary Information for Your Primary Career Goal (indicate if $/hour or $/year): |
| Potential Employers (list at least 3): |
| Career Outlook (How good is the job outlook for your primary career goal?): |
| Working Conditions (What are the expected working conditions for your primary career goal? Address such issues as indoor or outdoor environment, work alone or with people, weekly hours, mentally and/or physically demanding, etc…). |
| What leadership activities/clubs/programs could you participate in at Reedley College that would help you to develop the soft skills and/or technical skills that you will need to be successful in your career? |
| Other considerations/important information that you will need to know (if applicable): |
| List the websites (home address) and any other resources that you used in your research: |