

**AA21 Animal Science I**  
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**Course Pre-requisites – Not Applicable**

**Course Description**

This course focuses on the basic scientific principles and processes that are involved in animal physiology, breeding, nutrition and care in preparation for an animal science career major. Topics include animal diseases, introduction to animal science, animal nutrition, animal science issues, career opportunities and animal evaluation. Skills in biology, chemistry and algebra are reinforced in this course. Work-based learning strategies appropriate for this course are agriscience projects, internships and supervised agricultural experience. Supervised agricultural experience program and FFA leadership activities are integral components of this course and provide many opportunities for practical application of instructional competencies.

**Student Learning Objectives (VOCATS Blueprint)**

Topic 1	Leadership/FFA
Topic 2	Supervised Agriculture Experience
Topic 3	Foundational Knowledge of Ag Animals & Benefits
Topic 4	Identify Marketing Systems used in the Livestock Industry
Topic 5	Differentiate Identification Systems
Topic 6	Parts & Functions of Animal Digestive Systems
Topic 7	Functions & Sources of Feed Nutrients
Topic 8	Reproductive Management
Topic 9	Female & Male Reproductive Systems
Topic 10	Poultry Reproductive Systems
Topic 11	Importance of Genetics in Animal Science
Topic 12	Social Issues Associated with Animal Science

**Required Textbook/Materials**

- Required textbook will remain in the classroom as a classroom set.
- Students should be prepared with a three ring binder, writing instrument and
- Recommended, but not required, colored pencils or markers, calculator, method of taking photos for SAE project requirements.

<b>Course Grading Weights</b>		
<b><u>Major Assignments</u></b> Quarterly Exams, Course Quizzes, Supervised Ag Experience Project, FFA Leadership Learning Activities	<b>60%</b>	<b>75% of Course Grade</b>
<b><u>Minor Assignments</u></b> Class Cooperative Group Work Activities, Lab Activities, Notebook Checks, Public Speaking Experiences	<b>40%</b>	
<b>Final Exam</b>		<b>25% of Course Grade</b>

<b>Randolph County Grading Scale</b>	
<b>A</b>	<b>90-100</b>
<b>B</b>	<b>80-89</b>
<b>C</b>	<b>70-79</b>
<b>D</b>	<b>60-69</b>
<b>F</b>	<b>0-59</b>

**Congratulations – You are now an official member of the FFA**

By enrolling into an agricultural education course and maintaining the enrollment for the duration of the course, each student is automatically a member of the Randleman FFA Chapter. The Randleman High School FFA Chapter is now an affiliate FFA program within the North Carolina FFA Association. All students enrolled in an agricultural education course during the current year are officially members of the FFA organization. The financial requirement for each student's membership has been covered by the organization thru fundraising efforts and community support conducted during the year.

## AA21 Animal Science I – Performance-based Measurement

### OVERVIEW

Evaluation of each student for final course credit will be determined by the following list of identified components using the provided rubrics. All course essential standards must be taught, and all components of the performance-based measurement must be administered.

### COURSE PROFICIENCY

To demonstrate proficiency in this course, each student must earn a minimum of **700** points out of a possible **1,000** points. Each student will be required to complete the assignment(s) for each course standard and will be graded accordingly. It is acceptable for students to attempt each component multiple times. **Students that do not achieve a minimum of 700 points out of 1000 will be required to take the teacher made final exam to be given at the end of the semester. This teacher made final exam will count 25% of the student's overall semester grade. It is to your advantage to complete all course work related to the PBM Proficiency Standards located below and ON TIME!**

Corresponding Essential Standard	Component	Possible Points	Points Earned
1.00: Understand leadership opportunities in animal science.	1 – Communication	40	
1.00: Understand leadership opportunities in animal science.	2 – Parliamentary Procedure	40	
2.00: Understand careers in the animal science industry.	3 – SAE	100	
3.00: Remember terminology relevant to animal agriculture.	4 – Breeds and Terminology	100	
4.00: Understand agriculture animals.	5 – Animal Evaluation	70	
4.00: Understand agriculture animals.	6 – Grading Cattle	30	
4.00: Understand agriculture animals.	7 – Grading Swine	30	
4.00: Understand agriculture animals.	8 – Poultry Carcass Evaluation	30	
5.00: Understand the impact of animal agriculture.	9 – Impact and Trends	30	
5.00: Understand the impact of animal agriculture.	10 – Current Issues	30	
5.00: Understand the impact of animal agriculture.	11 – Animal Agriculture Infographic	70	
6.00: Understand animal management.	12 – Animal Management Practices	130	
7.00: Understand animal digestion.	13 – Animal Feeds	70	
7.00: Understand animal digestion.	14 – Digestion Model	80	
8.00: Understand animal reproduction.	15 – Reproductive Processes	80	
8.00: Understand animal reproduction.	16 – Heritability	70	
<b>TOTAL POINTS</b>		<b>1,000</b>	

# Supervised Agricultural Experience Program

The supervised agricultural experience (SAE) program involves real-world agricultural activities done by students outside of planned classroom and laboratory time. SAE's provide a method for students to receive practical career skills in a part of agriculture in which they are interested. An SAE is an essential element to the agricultural education program. Students in this course must complete 25 hours of SAE work in excess of scheduled class time. Students must maintain records of their SAE activities via the AET online record keeping system.

## Course & Instructor Policies

**Late –Make Up Work:** Students are responsible for making arrangements to get make-up work from teachers. Teacher shall determine when work should be made up, but under no circumstances shall the time permitted to complete make-up work exceed 10 instructional days from the time of the absences. Please see Board Policy 4400 Attendance. If a work is not made up in the allotted 10 days please see the late work policy.

**Attendance:** (Refer to student handbook for specific school policy) If you are not inside the door, you're tardy

**Conduct Specific Issues:** All students will adhere to the school dress code or be subject to referral to the office. All students will adhere to cell phone and electronic device policies or be subject to referral to the office. All students will conduct themselves with respect for others, school property and the rules and regulations set forth or be subject to referral to the office. (Refer to student handbook for specific school policies.)

**Remediation/Tutoring Opportunities:** Available in accordance to the school Remediation schedule.

### Specific Class Policies:

1. Restroom Policy – My discretion!
2. If you are not with the class, you are considered out of area and subject to referral.
3. Must sign out at the door when you leave the room. Students with the least amount of time out of class at the end of the semester may benefit with extra credit.
4. Cell phones and electronic devices are to remain out of use, sight and out of sound during class. (Using a table, book bag or pocket book to hide the use of cell phones will not be tolerated as well) If your parents must contact you while at school, they should also comply with the cell phone rule and call the school.
5. All doors to adjacent classrooms are off limits unless permission is granted.
6. **Agriscience Land Lab – All facilities and areas on the Agriscience Land Lab are now considered restricted areas. No student is allowed on this lab, for any reason, without prior approval from the Agricultural Education instructor(s).**

Parental Signature \_\_\_\_\_ Date \_\_\_\_\_

## Supervised Agricultural Experience Program (Project) Parental Information Sheet

Dear Parents/Guardians,

Your student is about to start a semester long project in their Agriculture Class. The supervised agricultural experience (SAE) program involves real-world agricultural activities done by students outside of planned classroom and laboratory time. SAE's provide a method for students to receive practical career skills in a part of agriculture in which they are interested. There are several different types of projects that your student can complete. Over the first few weeks of school, we will be covering SAE's and their options. We will use Explore SAE to discuss career paths and interests to help them choose an SAE. Students will be required to setup and complete their own SAE project(s) by using the AET Agricultural Experience Tracker Online Record Keeping System. More information will be provided to the student about this system during the first two weeks of class.

### **Students may pick one of the four project types for their SAE:**

★ Placement - Get a job or internship (job shadow) on a farm or ranch, at an agriculture-based business (e.g. nursery, vet clinic, grocery store, feed store, hardware store, etc.), or in a school or factory laboratory. Your student will also need to keep up with any money spent or earned while working on their project. This can be a paid or unpaid placement.

★ Research – This project allows the student to complete an experiment type project relating to agriculture. This is a lot like a science fair project (e.g. Determine whether the phases of the moon affect plant growth, or test and determine the efficacy of different welding methods, etc.). Your student will also need to keep up with any money you spend or earn while working on your project.

★ Exploratory – Students complete a typed report on any topic relating to agriculture that is of interest to them. (Ex: Explore careers in agriculture by attending an agriculture career fair, shadowing an agriculture job; and reporting, or creating a report or documentary on the work of a veterinarian or other research topic.) This division is used for helping a student reach the SAE requirement for class that cannot invest money or just wants to learn more about an agriculture topic. NO money is involved only learning!

★ Entrepreneurship – Develop and operate your own agricultural business (e.g. a lawn care service, beef cattle show project, a garden, holiday poinsettia production and sales, etc.) This project allows students to complete a hands-on, work related project that pertains to agriculture. Your student will also need to keep up with any money spent/earned and time while working on their project. Money is involved in this category.

After selecting a project, student will keep a record of all work that is done on the project in the record book journals provided (online with the Agricultural Experience Tracker [www.theaet.com](http://www.theaet.com)). The following will be graded:

- Manage your personal profile to 100%
- Record your Ag class schedule
- Manage your resume information including your objective
- Enter FFA Office/Committee-including some journal w/ activities, if applicable

#### Set up your SAE under Experience Manager

- Completely create SAE plans on the AET system
- Journals &/or finances recorded for the SAE on the AET system

- A minimum of four SAE grade checks will be conducted during the semester, one at each 4.5 week points to check for accuracy and completion of SAE components and that records are up to date.
- The complete Record Book with resume', activities, journals and SAEs completed will also count towards the SAE portion of your grade that is included in the Major Assignment (60%) of the overall semester grade.
- It is the student's responsibility to keep an accurate and current record of SAE activities including time completed, any expenses and income that occur within the program timeframe. Students will have the opportunity on a weekly basis to update record books in class, but will need to complete the actual SAE project outside of class as "homework". Students may use a laptop, computer, ipad or the FREE mobile version at [www.theaet.com](http://www.theaet.com) (highly suggested) to record data and may update records even when they are not in class.
- SAE Program Time Requirements for each AGED course level
  - Agriscience Applications Introductory course 25 hours of SAE work
  - Level I Course (Animal Science & Horticulture) 45 hours of SAE work
  - Level II Course (Animal Science & Horticulture) 60 hours of SAE work

Along with the SAE activity records, the following will be required to complete the semester long SAE program on the AET Online Record Keeping System:

- Time in your Community Service Activities:
  - Community service hours can be conducted within the FFA program or can be conducted outside of school on an individual basis. Community service hours also count towards the requirements to receive FFA Degrees within the FFA program.
- Time in FFA Activities:
  - Students are required to participate in a minimum number of activities to earn 25 points per semester. These activities are listed on the FFA leadership learning experiences document contained in this packet. All FFA activities and experiences completed should be recorded on the AET record keeping system this semester.
- 3 Pictures Conducting SAE:
  - Pictures should be taken of the student completing tasks during their SAE. These pictures can show growth, tasks complete, skills learned but it is encouraged they are "action" photos. These pictures will be uploaded to AET and captioned. A minimum of three photos will be required by the end of the semester.
- Finances (your invested money if any):
 

SAE Cash Entries -All \$ recorded for your SAE if it has expenses and incomes.

  - Placement SAE - paychecks and time recorded in journal.
  - Research SAE - time and money invested recorded in journal.
  - Exploratory SAE - will only have time invested - NO \$.
  - Entrepreneurship SAE -\$ invested recorded in journals of time and finances  
For example – For animal projects...expenses for feed, medicine, equipment, etc. would be recorded as business expenses. Income may include the sale of animals or sell of product produced from the animals.

Feel free to contact me (Mr. Walker) [jwalker@randolph.K12.nc.us](mailto:jwalker@randolph.K12.nc.us) or by calling 336-498-2682 if you have any questions regarding this project. Please sign and return. A copy will be made and returned to your student.

Parental Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Student Signature \_\_\_\_\_ Date \_\_\_\_\_