

## **Program Assessment Ranch Management Program**

### **I. Mission Statement**

To prepare students to manage natural resources with ecologically and economically sound practices with ethical and moral standards accepted in an international market.

### **II. Competencies**

1. Ability to inventory and evaluate the productive capabilities of the natural resources that they will be responsible for.
2. Ability to analyze the economic potential of agricultural resources.
3. Develop goals and strategies necessary to complete an operational plan for natural resources.
4. Knowledge necessary to make sound management decisions involving agricultural assets.
5. Analytical skills for developing a marketing plan for the assets produced on land they are responsible for. (livestock, crops, wildlife, minerals, recreational, etc.)
6. Ability to put together a complete plan of operation for a specific agriculture operation.
7. Ability to interact with professionals in the agricultural industry.
8. Awareness of local, national, and international markets and general globalization of agricultural products.

### **II. Intended Outcome**

1. Graduates will have the ability to put together a complete business plan of operations for a specific agricultural enterprise.
2. Graduates will be able to evaluate productive capabilities of soils for the production of crops for food and fiber for human and livestock consumption.

3. Graduates will be able to select livestock that are economically adapted to the production environment in which they are expected to operate.
4. Graduates will have the ability to evaluate and select facilities and equipment necessary to produce the selected agricultural commodity in the environment in which they are expected to operate.
5. Graduates will be able to establish a record keeping system for tracking production inputs and outcomes to establish economic returns on investments.
6. Graduates will have the skills to establish a comprehensive health plan for the livestock that they will be responsible for. This plan will include preventive medicine and recognition and treatment of disease.
7. Graduates will be able to develop marketing strategies that will enhance profitability. This will include the utilization of financial risk management.
8. Graduates will have the ability to evaluate marketing options and alternatives available in a global market.
9. Graduates will have the ability to communicate sound management practices to other professionals in the industry and act as responsible leaders in total resource management.

#### **IV. Action Steps**

1. Students will be required to develop a “Range Plan” which will illustrate their ability to take information furnished and established by field work to develop a plan of operations to be conducted within a set of given guidelines.
2. Student will be assigned an accounting project that will require them to develop a record keeping system that utilizes accounting principals and is accurate and efficient.
3. Students will use acquired knowledge and research to design and budget for the construction of a set of livestock processing facilities. This facility should be efficient and economical.
4. Students will develop a plan to take a currently operating agricultural business and convert it into a completely different one. Students will be given basic information about the existing operation and specific guidelines and restrictions of the expected new enterprise. They will have

to utilize knowledge they have obtained and research information to accomplish this project.

5. All students will have to complete an overall management plan of an existing agricultural enterprise that is economically viable. The plan will be complete enough to operate the business from its information.
6. All students must participate in fieldwork to learn how to evaluate resources. The fieldwork will include many sources of information, which the students will be able to access after graduation.
7. Students will participate in multiple field trips to different geographical regions of the country to study different type of agricultural businesses. They will have approximately 60 different individual business people explain their particular operation and answer student's questions and concerns.

## **V. Method of Assessment**

1. Development of a range plan that will require the student to inventory the natural resources available on an operating ranch to establish the productive capabilities of the land. They will utilize the information that they compile to develop a plan of operations that is ecologically and economically sound to maintain a viable cattle business on the property. This project will be completed in the fall semester and evaluated by the professor that assigns it. The grade earned on this project will be recorded in two courses because the project requires knowledge gained in multiple courses.
2. Students will establish a record keeping system that will track the financial activities of an operating ranch for a calendar year and determine the economic outcome of the business. This project will be finished in the fall semester. The professor that assigns the project will be responsible for the evaluation.
3. Students will utilize acquired knowledge to design and budget for the construction of livestock handling facilities. This project is to be complete enough in details that a contractor could use the information to construct the facility. This project is to be completed in the fall semester and graded by the assigning professor.
4. Student will establish a plan of operations to establish a beef cattle operation on a specific tract of land. The plan will start with the evaluation of resources available and carry through development of the necessary crops to provide food for the livestock. The plan will include selection, timing, establishment cost and production outcomes of the

overall project. This project will be completed before the end of the spring semester and evaluated by the professor that assigns it.

5. Students will individually track, record and analyze the futures market for selected classes of cattle. They will learn to recognize market trends and develop marketing strategies to fit their products. The marketing project will be completed in the spring semester and be evaluated by the assigning professor.
6. The major project required of the students consist of utilizing the knowledge that they have obtained to inventory, assess, analyze and establish and complete plan of operations for an existing agricultural enterprise. All research of the resources will be obtained and established by the student. This plan will be a complete management plan that includes all aspects of the resources available. It will include all management details necessary to successfully operate the business. Successful completion of this project is a requirement for graduation from the Program. The assignment is given prior to the end of the fall semester and is to be completed in the spring semester. The evaluation of this plan will be conducted by all of the professors. The grade earned will be recorded in all spring classes.
7. All students take the required curriculum both semesters. All classes utilize daily quizzes to assess progress of the students throughout both semesters. Each class will have two or three major examinations during the semester and a comprehensive final. The assigning professor grades all of the student evaluations of this type.
8. Students will have an examination after each field trip to the different geographical locations to determine their knowledge level retained from each of these trips.

## **VI. Results of Assessment/Proposed Improvements**

### **Assessment of Method #1**

**Results of Assessment:** The assessment of the business plan for operating an ongoing agriculture business involving natural resources comprised of native grasses was a success. All students were required to complete this project. Criteria for evaluation includes: Accuracy of the students evaluation and measurements of the natural resources they have to work with, accuracy of establishing stocking rates, grazing systems developed, establishing range improvement needs and implementation, inventory control of livestock, establishment of an animal health program, and overall management soundness of the operation of the native rangeland.

**Intended Outcome:** The students achieved the intended outcome in the allotted time and the results were acceptable.

**Proposed improvements:** Students will be required to utilize basic formulas to calculate range productivity, livestock stocking rates, crop production, production results and profitability outcomes prior to utilizing electronic spreadsheets in order to be able to properly analyze results.

#### **Assessment of Method #2**

**Results of Assessment:** The results of the student project for establishing a record keeping system was a success. All students are required to complete this project. Evaluation criteria are based primarily upon the accuracy of the records system. The students are required to establish a beginning and ending inventory, create a net worth statement, create an annual cash flow statement, create income statements, establish depreciation schedules, and itemize a check registry.

**Intended Outcome:** Students achieved the intended outcome in the allotted time and the results were acceptable.

**Proposed Improvements:** There are no proposed improvements at this time.

#### **Assessment of Method #3**

**Results of Assessment:** This project requires the student to utilize acquired knowledge and personal experience. The instructor evaluates the project for: logistical functions, labor saving, animal welfare, strength and durability, and overall capital investment. Overall student performance was very good. Areas of weakness were discussed with students on an individual basis.

**Intended Outcome:** The students achieved the intended outcome in the allotted time and the results were acceptable.

**Proposed Improvements:** No improvements are proposed at this time.

#### **Assessment of Method #4**

**Results of Assessment:** The assessment of the project of establishing a beef cattle operation on a select tract of land with introduced forages was a success. All students are required to complete this project. The project is evaluated by a multiple of criteria: Selection of forage varieties to be planted, methods of establishment, cost of establishment, projection of

pounds of forage expected, livestock selection, livestock stocking rates, and overall economic outcomes expected from the business operation. Student performance varied in the different areas. Individuals excelled in certain areas and performed on the average in others. Some students displayed weaknesses in a few areas and the evaluator addressed these weaknesses with each student on an individual basis.

**Intended Outcome:** The students achieved the intended outcome in the allotted time and the results were acceptable.

**Proposed Improvements:** The main recommendation is for students to utilize proven formulas for calculating crop changes, fertilization requirements, production results and profitability outcomes prior to utilizing electronic spreadsheets in order to properly analyze the results. After the final evaluation of our assigned projects we analyze the instructions given for the project, the weather conditions under which the plan was conducted, and the final results of the overall response from the students. We utilize these inputs to determine if changes to the project are warranted in the assignment. It is our intention to improve upon any aspect of our academic program if resulting analysis warrants improvement.

#### **Assessment of Method #5**

**Results of Assessment:** The result of the students tracking, recording and analyzing the futures market of selected classes of cattle was a success. All students are required to finish this project. The assignment is for students to construct a detailed market database from industry market information sources which will display the following: commodity price trends, supply and demand analysis, intra-commodity price relationships, risk management techniques, seasonal market influences, farm to retail margin analysis, and industry expansion and liquidation trends. Evaluation is based upon the organization and presentation of the data and the ability of the student to analyze the market information on a short term, intermediate term and long-term basis. The analysis must be supported by sound generally accepted industry fundamental analysis.

**Intended Outcomes:** The students achieved the intended outcome and became very aware of the volatility of this market. The results were acceptable.

**Proposed Improvements:** Begin this project earlier in the year for a longer period of time for analysis. After the final evaluation of this project we determined that it would be more beneficial to the students to track the market longer to enable them to experience more market movements caused by seasonality changes. We annually evaluate the project results to

determine if changes are needed to improve the learning experience for the students.

#### **Assessment of Method #6**

**Results of Assessment:** The evaluation of this project is a very important portion of the student's academic achievement. This project is the culmination of all of the different areas of study. The plan demonstrates the student's ability to utilize the knowledge obtained and formulate an economical plan of operation for an actual agricultural business. This project makes it possible for the faculty to evaluate the performance of the student in all areas of instruction. The project also allows for evaluation of the student's ability to organize thoughts and utilize the multiple disciplines in which they have been educated.

**Intended Outcome:** Intended outcome was achieved and the results were acceptable.

**Proposed Improvements:** Evaluation of better mapping capabilities as better technology becomes available.

#### **Assessment of Method #7**

**Results of Assessment:** The testing of students has proven an efficient method of evaluating academic progress of individual students.

**Intended Outcome:** Outcome achieved and the results are acceptable.

#### **Assessment of Method #8**

**Results of Assessment:** The testing of students has proven an efficient method of evaluating academic progress of individual students.

**Intended Outcome:** Outcome achieved and the results are acceptable.

**Proposed Improvements:** No improvements are proposed at this time.

### **VII. Resources Needed**

The resources needs are simply to keep our equipment up with the changing technology.