

**Core Curriculum**  
**Course Proposal Cover Sheet**

Department: Environmental and Agricultural Management  
College: College of Agricultural and Environmental Sciences  
Department Head: Dr. Ashley Lovell

Course Prefix & Number: AEC 105  
Course Title: Introductory Agricultural Economics  
Course Description:

An introduction to economic principles and concepts in agriculture today as they relate to the American economic system. Emphasis will be on management problem-solving techniques under various situations, especially those agricultural in nature, including producing, processing, distributing, and consuming farm and ranch products.

**Please select the THECB Foundational Component Area for which this course is being submitted. (Please select only one)**  
Social and Behavioral Sciences ([download forms](#))

(The “download forms” link for the selected Component Area includes the **Foundational Component Area Justification Form** and the **Student Learning Outcome Alignment Form**)

**Checklist:**

Course Proposal Cover Sheet  
Foundational Component Area Justification Form  
Student Learning Outcome Alignment Form

## **SOCIAL and BEHAVIORAL SCIENCE**

### **FOUNDATIONAL COMPONENT AREA JUSTIFICATION FORM**

Rationale: Please provide a rationale for the course that explains how the course being proposed fits into this component based on the component's description. For your convenience, the overall description and rationale for this component are included below.

Social and Behavioral Science (from THECB Chapter 4: 4.28)

- Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively
- Courses involve the command of oral, aural, written, and visual literacy skills that enable people to exchange messages appropriate to the subject, occasion, and audience

The following four Core Objectives must be addressed in each course approved to fulfill this category requirement: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills and Social Responsibility.

- Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information;
- Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication;
- Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- Social Responsibility: to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

#### **Rationale for Inclusion in this Category:**

The production of food is recognized as one of the earliest activities of civilized humans and arguably was the activity that enabled humans to have civilization. Globally more people are involved in the food and fiber industry than any other. The continued existence of humans is completely dependent on what has become a highly sophisticated agricultural production system.

This course is designed to ensure that students will obtain a thorough understanding of agriculture and its relationship to the following:

Basic Needs of Humans,  
Nutritional Needs of Humans,  
Nature,  
Civilization,  
Religion,  
Cultures,  
Climate,  
Natural Resources,  
Trade,  
Politics,  
Genetic Engineering,  
Pollution and  
Economics and Management.

Upon the successful completion of this course students should be able to express these ideas in a way that conveys these ideas to others regardless of audiences' background or level of understanding.

Students are required to demonstrate this mastery by interpreting the meaning of raw data with respect to the process of making scientifically based decisions. This involves the use of **quantitative** skills that are appropriate to the task. For example students learn the dynamics of population growth and the corresponding supply that is required from food producers in the United States to meet not only the U.S. demand for food but to provide for other needs as well. This includes the production and distribution of food that is exported, food that is needed to provide for individuals that cannot provide for themselves and the food required for food diplomacy with other nations.

In any social science it is important to learn the distinction between “positive” and “normative” statements. In this class students learn to distinguish between these two types of arguments as well as when and where one or the other may be appropriate or inappropriate.

The concept of indifference analysis or revealed preference theory is used in this class to teach students how economists are able to develop a way of measuring utility (i.e. feelings, satisfaction or contentment), things that are difficult to measure directly, by using a logical construct of observation to measure these things indirectly. Students then learn how to use this tool to develop a simple demand curve.

In this class students learn to use a procedure for analyzing problems that involves the development of a written or oral description of the problem, the identification and

collection of appropriate data, graphic analysis of the data and a mathematical analysis of data. Students learn how to determine which level of analysis is appropriate for various audiences, primarily with respect to the audience's level of education or other demographic differences.

Approximately 20% of the course deals with the microeconomics that is used by managers of all types of businesses to profitably allocate the resources under their control. Students are required to demonstrate their ability to calculate the physical and economic efficiency of a production process, do marginal analysis, calculate total and unit cost of production and determine normal and economic profit. Students make these calculations using tables of data as well as graphically.

Agricultural production is heavily dependent upon natural resources. The presence or absence of specific resources is a large determinant of where agricultural activity takes place in any country. As things like laws and technology change over time, changes in the location of agricultural activity can and do take place. In this class students learn about the connection between agriculture, farm policy and natural resources as well as how this connection affects other members of society. The competition for natural resources such as water, energy, and land has a great impact on society in general. Students in this class learn about these issues from discussions and readings that involve some of the most important current event issues in the United States and around the world.

**STUDENT LEARNING OUTCOME ALIGNMENT FORM**  
**Social and Behavioral Science**

**Course Prefix/Number:** A EC 105

**Course Title:** Introductory Agricultural Economics

**Core Objective: Critical Thinking CT1:** Students will evaluate evidence in analysis, interpretation or arguments

**Course SLO(s):** Students will distinguish between "positive" and "normative" economic arguments

**Learning Activities:**

Students will be given examples of articles from various sources that contain both positive and normative statements and be shown how to distinguish between the two types of statements. This will be accomplished via an interactive SoftChalk exercise available online.

**Means of Assessment:**

Students will demonstrate their knowledge of why it is important to distinguish between these two types of arguments as well as when and where one or the other may be appropriate or inappropriate. These will be assessed by embedded exam questions.

**Core Objective: Critical Thinking CT2:** Students will synthesize varied components of information to form a rational conclusion.

**Course SLO(s):**

Students will construct and use "revealed preference theory" (AKA indifference curve analysis) to analyze consumer behavior.

**Learning Activities:**

Students will be given a demonstration of how each step in this analysis is based on a logical conclusion and how this type of analysis can be used to construct a simple demand curve. The demonstration of this process involves the use of data, graphs, and math.

**Means of Assessment:**

Embedded exam questions will be used to determine students' competency in understanding the underlying logic that is used to construct this type of analysis as well as their ability to use this process to construct a simple demand curve.

**Core Objective: Communication** C1: Students will express ideas in written, visual or oral forms to a range of diverse audiences in multiple settings.

Course SLO(s):

(1) Students will develop a written or oral description of a problem, identify and collect appropriate data, present a graphic and mathematical analysis of data, and present appropriate visual presentations of data. (2) Students will determine the level of analysis appropriate for various audiences, primarily with respect to level of education but also relative to cultural, religious or need-based backgrounds.

Learning Activities:

Each type of analysis will be used to evaluate the allocation of resources in an agricultural business production situation. Students will demonstrate their ability to measure and analyze production data to determine the optimum allocation of resources.

Means of Assessment:

Embedded exam questions will be used to determine students' competency in utilizing each of these means of analysis. This includes the ability to understand the verbal description of an economic problem, data in a table format, data presented in a graphic format, and the mathematical calculation of information that is needed. Likewise, students will be tested to determine their ability to assess which method would best be used to convey the results to different audiences.

**Core Objective: Empirical and Quantitative Skills** EQS1: Students will gather, interpret or use numerical data/observable facts to arrive at an informed conclusion.

Course SLO(s):

Students will perform marginal analysis of data using both graphic and numeric calculation.

Learning Activities:

The process of making all of these calculations will be presented to students using data in a spreadsheet as well as producing and analyzing the same data in a graphic format. Students will be given homework exercises to complete the same process. Likewise students will be given examples of these calculations in practice exercises via SoftChalk in online interactive exercises.

Means of Assessment:

Students will be tested using embedded exam questions to demonstrate their ability to perform and understand these calculations.

**Core Objective: Social Responsibility** SR1: Students will demonstrate an understanding of different cultural perspectives.

Course SLO(s):

(1) Students will explain that food is a necessity of life and be able to determine the amount of food that an individual needs as measured with respect to the nutritional components of various types of food commodities. (2) Students will describe how and why nations developed different ways to meet the nutritional needs of their citizens. (3) Students will also describe connections between the necessities of food production and cultural and religious differences observed in various parts of the world.

Learning Activities:

Students will go through various exercises including readings from different sources and interactive exercises in an online format in order to gain an understanding of the connections between food production requirements and evolution of the differing cultural practices and customs that are observed around the world.

Means of Assessment:

Embedded exam questions will be used to determine the degree to which students have an understanding of this material.

**Additional objectives at the discretion of the department.**

**Core Objective: Social Responsibility** SR1 additional; students will demonstrate an understanding of the connection between agriculture and natural resources.

Course SLO(s): (1) Students will demonstrate an understanding of the connection between agriculture and natural resources. (2) Students will observe that agriculture is heavily dependent upon natural resources, that there is competition for the use of these natural resources for nonagricultural purposes, and that many government policies deal with how these resources are allocated among the users.

Learning Activities:

Students will use dot density and chloropleth maps to learn about the extent of agricultural activities in the United States and in a few cases around the world. Students will use these maps, articles from various sources, and other resources to identify the connection between agricultural activities and natural resources such as water and energy. Students will also use some of the same tools to observe how changes in the

availability of natural resources or changes in the way natural resources are allocated can, over time, dramatically change where and how agricultural products are produced.

Means of Assessment:

Embedded exam questions will be used to determine the degree to which students have comprehended these concepts.

As department head, I will ensure that all faculty that teach this course are aware of the requirements that these core objectives and learning strategies be incorporated into the above referenced course. This action is taken so that Tarleton State University will be in compliance with Texas Higher Education Coordinating Board foundational component area and core objective requirements for the General Education Core Curriculum.

Signature \_\_\_\_\_

We, the undersigned faculty, support the proposed changes to this course and agree to incorporate them into our section of the above referenced course. This action is taken so that Tarleton State University will be in compliance with Texas Higher Education Coordinating Board foundational component area and core objective requirements for the General Education Core Curriculum.

*(Signed document should be kept in department office, listing names below on the electronic document implies acceptance)*

Faculty member signatures \_\_\_\_\_