

Business Management for Agricultural and Environmental Systems

Subject Code: 010115

Course & Unit Descriptions

Course Description:

Students will learn the components of agricultural business by developing a business plan, applying marketing and sales techniques, and identifying business structures. Students will learn about leadership and management styles and the impact they have on business. Students will learn that agro-security, finance, career development, and human resources are important components of business management.

Unit: Structuring Business

Students will identify the different types of business structures.

Benchmark: 3.3 Management

Level 1: Select and organize resources to develop a product or a service to be rendered

Level 2: Analyze performance of an enterprise and reallocate resources to achieve goals

Indicators

3.3.04 Identify organizational structures of businesses

Academic Standards

English: Analyze the features and structures of documents and critique them for their effectiveness. (Reading: Informational Text A, 11-12)

Math: Estimate, compute and solve problems involving real numbers, including ratio, proportion and percent, and explain solutions. (Number G, 8-10)

Social Studies: Identify factors which inhibit or spur economic growth and cause expansions or recessions. (Economics B, 11-12)

Unit: Developing a Business Plan

Students will learn different types of marketing strategies. Students will conduct research and determine which business plan will work for purchasing, marketing, selling, and distributing products.

Benchmark: 3.1 Marketing

Level 1: Promote a product or service using basic strategies for packaging, display and publicity

Level 2: Develop and market a product or service to maximize profits and optimize cost

Indicators

3.1.01 Select target market and consumers

3.1.02 Research products and service design(s) and determine the technical feasibility of new products

3.1.06 Identify and evaluate methods of marketing products and services

3.1.10 Identify and evaluate purchase options (e.g., finance options, lease, cash, rental)

Academic Standards

English: Produce functional documents that report, organize and convey information and ideas accurately, foresee readers' problems or misunderstandings and that include formatting techniques that are user friendly. (Writing Applications C, 11-12)

Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)

Social Studies: Analyze how scarcity of productive resources affects supply, demand, inflation and economic choices. (Economics A, 11-12)

Benchmark: 3.11 Research and Analysis

Level 1: Conduct a study or survey, select descriptive statistics, create graphical displays and draw conclusions

Level 2: Conduct a problem-based study applying scientific methodology and using descriptive statistics to communicate and support predictions and conclusions

Indicators

3.11.03 Establish and implement procedures for systematic collection, organization, and use of data

Academic Standards

English: Formulate open-ended research questions suitable for inquiry and investigation and adjust questions as necessary while research is conducted. (Research A, 8-10; Research A, 11-12)

Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)

Science: Participate in and apply the processes of scientific investigation to create models and to design, conduct, evaluate and communicate the results of these investigations. (Scientific Inquiry A, 9-10)

Benchmark: 3.2 Sales and Customer Service

Level 1: Use customer service and sales techniques to foster positive relationships with customers and conduct sales

Level 2: Use sales techniques to close the sale of a product/service and handle complex customer issues

Indicators

3.2.02 Develop sales goals and incentive programs

Academic Standards

English: Use a variety of strategies to enhance listening comprehension. (Communication A, 8-10; Communication A, 11-12)

Math: Estimate, compute and solve problems involving real numbers, including ratio, proportion and percent, and explain solutions. (Number G, 8-10)

Benchmark: 3.3 Management

Level 1: Select and organize resources to develop a product or a service to be rendered

Level 2: Analyze performance of an enterprise and reallocate resources to achieve goals

Indicators

3.3.02 Explain the characteristics of business plans

3.3.03 Develop business goals/objectives and mission statement

3.3.05 Plan operational capacity

3.3.06 Develop a continuous-improvement management program

3.3.08 Document business activities

3.3.09 Track performance of business plan

3.3.10 Assess the profitability of a product

3.3.11 Analyze operating results in relation to budget/industry

Academic Standards

English: Analyze the features and structures of documents and critique them for their effectiveness. (Reading: Informational Text A, 11-12)

Math: Estimate, compute and solve problems involving real numbers, including ratio, proportion and percent, and explain solutions. (Number G, 8-10)

Social Studies: Identify factors which inhibit or spur economic growth and cause expansions or recessions. (Economics B, 11-12)

Benchmark: 3.5 Purchasing and Inventory

Level 1: Maintain accurate inventory of assets

Level 2: Manage inventory based on budgeting and sales forecasting

Indicators

3.5.01 Explain the nature and scope of purchasing

Academic Standards

English: Use multiple resources to enhance comprehension of vocabulary. (Vocabulary F, 8-10; Vocabulary E, 11-12)

Math: Write and solve real-world, multi-step problems involving money, elapsed time and temperature, and verify reasonableness of solutions. (Measurement F, 8-10)

Benchmark: 3.6 Information Management

Level 1: Select and use a computer and computer application for a specific purpose

Level 2: Integrate software applications and use multiple software options to create a product, document or presentation

Indicators

3.6.02 Conduct research using the Internet

Academic Standards

English: Prepare writing for publication that follows an appropriate format and uses a variety of techniques to enhance the final product. (Writing Process F, 11-12)

Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)

Unit: Agricultural Marketing

Students will research and discover different types of marketing. Students will demonstrate communication skills through presentations and different forms of advertising. Students will use technology and their applications in marketing a product.

Benchmark: 3.1 Marketing

Level 1: Promote a product or service using basic strategies for packaging, display and publicity

Level 2: Develop and market a product or service to maximize profits and optimize cost

Indicators

3.1.01 Select target market and consumers

3.1.02 Research products and service design(s) and determine the technical feasibility of new products

3.1.03 Conduct market research and analysis

3.1.04 Select channels of distribution

3.1.05 Set prices using supply and demand curves and commodity and non-commodity pricing

3.1.06 Identify and evaluate methods of marketing products and services

3.1.07 Promote products and services

3.1.08 Develop public relations campaigns

3.1.09 Select and implement a marketing option (e.g., cash sales, hedge, speculate, options, forward contract, government programs)

3.1.10 Identify and evaluate purchase options (e.g., finance options, lease, cash, rental)

3.1.11 Evaluate the benefits of commodity check-off programs

Academic Standards

- English: Produce functional documents that report, organize and convey information and ideas accurately, foresee readers' problems or misunderstandings and that include formatting techniques that are user friendly. (Writing Applications C, 11-12)
- Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)
- Social Studies: Analyze how scarcity of productive resources affects supply, demand, inflation and economic choices. (Economics A, 11-12)

Benchmark: 3.6 Information Management

Level 1: Select and use a computer and computer application for a specific purpose

Level 2: Integrate software applications and use multiple software options to create a product, document or presentation

Indicators

- 3.6.03 Create and utilize documents using word processors, spreadsheets, databases and electronic mail
- 3.6.04 Conduct oral/visual presentation using presentation software
- 3.6.05 Create and post a basic web page

Academic Standards

- English: Prepare writing for publication that follows an appropriate format and uses a variety of techniques to enhance the final product. (Writing Process F, 11-12)
- Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)

Benchmark: 3.7 Communication Skills

Level 1: Integrate a variety of communication techniques to gather and convey information to an individual or small group

Level 2: Conduct a business meeting using decision-making techniques

Indicators

- 3.7.03 Develop and deliver formal and informal presentations
- 3.7.08 Develop reports and documents that organize information accurately and use formatting techniques for user friendliness

Academic Standards

- English: Produce functional documents that report, organize and convey information and ideas accurately, foresee readers' problems or misunderstandings and that include formatting techniques that are user friendly. (Writing Applications C, 11-12)
- Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)
- Social Studies: Evaluate the reliability and credibility of sources. (Social Studies Skills and Methods A, 9-10)

Unit: Sales and Customer Service

Students will identify the important factors in organizing a sale. Students will apply techniques needed for presentations and communication while promoting customer service.

Benchmark: 3.2 Sales and Customer Service

Level 1: Use customer service and sales techniques to foster positive relationships with customers and conduct sales

Level 2: Use sales techniques to close the sale of a product/service and handle complex customer issues

Indicators

- 3.2.01 Identify key components to organize a sale
- 3.2.02 Develop sales goals and incentive programs
- 3.2.03 Forecast sales and delivery times
- 3.2.04 Prospect for new customers
- 3.2.05 Discuss and evaluate the appropriateness of different sales techniques/approaches in specific situations
- 3.2.06 Develop and conduct sales presentation
- 3.2.07 Utilize suggestive selling and selling up techniques
- 3.2.08 Build and develop customer relationships
- 3.2.09 Apply appropriate questioning techniques to determine client needs and wants
- 3.2.10 Provide product, warranty and maintenance education to the customer
- 3.2.11 Complete sales transactions and close-out procedures (e.g., handle money, operate cash register, scan bar codes, record sales, write invoices/orders)
- 3.2.12 Utilize follow-up activities/strategies and provide post-sale service
- 3.2.13 Handle customer complaints

Academic Standards

- English: Use a variety of strategies to enhance listening comprehension. (Communication A, 8-10; Communication A, 11-12)
- Math: Estimate, compute and solve problems involving real numbers, including ratio, proportion and percent, and explain solutions. (Number G, 8-10)

Benchmark: 3.7 Communication Skills

Level 1: Integrate a variety of communication techniques to gather and convey information to an individual or small group

Level 2: Conduct a business meeting using decision-making techniques

Indicators

- 3.7.01 Apply techniques to participate in/facilitate a group discussion
- 3.7.02 Apply active listening strategies
- 3.7.03 Develop and deliver formal and informal presentations
- 3.7.04 Articulate ideas and impact audience through verbal and nonverbal communication
- 3.7.05 Communicate directions in an organized manner appropriate to the audience
- 3.7.06 Use consensus-building techniques, including parliamentary procedure, to make decisions and compile summary of meeting minutes, conclusions, and next steps
- 3.7.07 Extract relevant, valid information from materials and cite sources of information
- 3.7.08 Develop reports and documents that organize information accurately and use formatting techniques for user friendliness
- 3.7.09 Select and use appropriate channel for workplace communication
- 3.7.10 Practice etiquette when using communication techniques

Academic Standards

- English: Produce functional documents that report, organize and convey information and ideas accurately, foresee readers' problems or misunderstandings and that include formatting techniques that are user friendly. (Writing Applications C, 11-12)
- Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)
- Social Studies: Evaluate the reliability and credibility of sources. (Social Studies Skills and Methods A, 9-10)

Unit: Purchasing and Inventory

Students will use available information in selecting a vendor for purchasing for a business . Students will use available technology to manage inventory and business supplies.

Benchmark: 3.5 Purchasing and Inventory

Level 1: Maintain accurate inventory of assets

Level 2: Manage inventory based on budgeting and sales forecasting

Indicators

- 3.5.01 Explain the nature and scope of purchasing
- 3.5.02 Manage the bid process in purchasing
- 3.5.03 Evaluate and select vendors
- 3.5.04 Discuss types of inventory and evaluate inventory control systems (e.g., Last In, First Out [LIFO]; First In, First Out [FIFO]; Just-In-Time [JIT])
- 3.5.05 Record inventory usage
- 3.5.06 Calculate costs of carrying and not carrying inventory
- 3.5.07 Determine cost-effective order method and economic reorder point for inventory
- 3.5.08 Apply just-in-time concepts
- 3.5.09 Perform logistics management

Academic Standards

English: Use multiple resources to enhance comprehension of vocabulary. (Vocabulary F, 8-10; Vocabulary E, 11-12)

Math: Write and solve real-world, multi-step problems involving money, elapsed time and temperature, and verify reasonableness of solutions. (Measurement F, 8-10)

Benchmark: 3.6 Information Management

Level 1: Select and use a computer and computer application for a specific purpose

Level 2: Integrate software applications and use multiple software options to create a product, document or presentation

Indicators

- 3.6.01 Utilize technology to maintain and monitor business records
- 3.6.03 Create and utilize documents using word processors, spreadsheets, databases and electronic mail
- 3.6.07 Operate geospatial technological systems (e.g., Global Positioning System [GPS], Geographical Information System [GIS])
- 3.6.08 Adhere to common security guidelines for technology

Academic Standards

English: Prepare writing for publication that follows an appropriate format and uses a variety of techniques to enhance the final product. (Writing Process F, 11-12)

Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)

Unit: Finance

Students will learn how to budget and monitor income and expenses. Students will develop record keeping skills to determine the costs of doing business.

Benchmark: 3.4 Finance

Level 1: Budget and monitor income and expenses of an enterprise

Level 2: Analyze fiscal status of an enterprise and reallocate resources to maintain/increase profitability

Indicators

- 3.4.01 Identify sources of capital and explain considerations in selecting among them
- 3.4.02 Analyze investment options (e.g., buy, lease, finance, risk)
- 3.4.03 Evaluate credit uses and options
- 3.4.04 Evaluate and select banking services
- 3.4.05 Budget resources (e.g., capital, human, financial, time)
- 3.4.06 Manage assets for optimum utilization
- 3.4.07 Manage risk of liabilities
- 3.4.08 Maintain financial records and interpret and analyze financial statements
- 3.4.09 Determine cost of doing business (e.g., personnel, depreciation, materials, freight, quality)
- 3.4.10 Calculate and analyze return on investment (ROI)
- 3.4.11 Forecast future budgetary needs

Academic Standards

- English: Demonstrate comprehension of print and electronic text by responding to questions (e.g., literal, inferential, evaluative and synthesizing). (Reading Process B, 8-10; Reading Process B, 11-12)
- Math: Estimate, compute and solve problems involving real numbers, including ratio, proportion and percent, and explain solutions. (Number G, 8-10)
- Social Studies: Analyze how scarcity of productive resources affects supply, demand, inflation and economic choices. (Economics A, 11-12)

Unit: Agro-security and Bio-security

Students will recognize the sources and causes of contamination and develop the protocols to implement bio-security procedures.

Benchmark: 3.12 Agro-security and Bio-security

Level 1: Identify agro-security and bio-security risks for an enterprise

Level 2: Implement a security plan addressing facility needs and tampering points

Indicators

- 3.12.01 Recognize sources and origins of agents that can contaminate processed and unprocessed food products
- 3.12.02 Identify activities and biological agents that contribute to the risk of acquiring or preventing a specific disease
- 3.12.03 Identify sources of biological and chemical tampering points
- 3.12.04 Assess facility security, classify level of risk and recommend improvements
- 3.12.05 Assess bio-security practices for sourcing of raw ingredients and recommend improvements
- 3.12.06 Implement biosecurity procedures to prevent cross-site contamination
- 3.12.07 Screen and test animals and plant products for infectious agents or contamination
- 3.12.08 Use biocontainment practices (e.g., quarantine, eradicate) to manage pests and disease vectors

Academic Standards

- English: Apply knowledge of roots, affixes and phrases to aid understanding of content area vocabulary. (Vocabulary D, 11-12)

Unit: Business Regulations and Law

Students will learn the value and importance of using contracts. Students will learn the local, state, and federal guidelines that are required for doing business and their political impact.

Benchmark: 3.10 Business Regulation, Law and Related Issues

Level 1: Identify and describe government regulations and societal issues related to a specific business enterprise or environmental project

Level 2: Determine the impact of government regulations and societal issues on an environmental project or the performance of a business enterprise

Indicators

3.10.01 Explain the nature and appropriateness of different types of business contracts

3.10.02 Explain the purpose and impact of government regulations

3.10.03 Identify local, state and federal regulations relative to compliance

3.10.04 Assess business liability and describe the consequences of noncompliance

3.10.05 Adhere to business-related documentation requirements

3.10.06 Identify governmental agencies and non-governmental organizations that impact agricultural/environmental issues

3.10.07 Research history, politics and policies related to issues

3.10.08 Assess the impact of issues affecting the industry and recommend solutions

Academic Standards

English: Demonstrate comprehension of print and electronic text by responding to questions (e.g., literal, inferential, evaluative and synthesizing). (Reading Process B, 8-10; Reading Process B, 11-12)

Math: Construct convincing arguments based on analysis of data and interpretation of graphs. (Data Analysis F, 8-10)

Social Studies: Evaluate the consequences of geographic and environmental changes resulting from governmental policies and human modifications to the physical environment. (Geography B, 11-12)

Benchmark: 3.9 Emotional Intelligence

Level 1: Exhibit desirable personal and professional appearance, attitudes, behaviors, and work habits

Level 2: Exhibit techniques to control emotional reactions to people and situations

Indicators

3.9.04 Describe and exhibit appropriate ethical behavior

Academic Standards

English: Use a variety of strategies to enhance listening comprehension. (Communication A, 8-10; Communication A, 11-12)

Social Studies: Analyze how issues may be viewed differently by various cultural groups. (People in Societies A, 11-12)

Unit: Career Development and Human Resources

Students will identify different management styles and how to handle situations under pressure or crisis. Students will use technology to keep business records, develop presentations, communicate effectively, and demonstrate proper etiquette.

Benchmark: 3.3 Management

Level 1: Select and organize resources to develop a product or a service to be rendered

Level 2: Analyze performance of an enterprise and reallocate resources to achieve goals

Indicators

3.3.01 Evaluate management styles

3.3.07 Establish business relationships

- 3.3.12 Perform human-resource management functions (e.g., recruit, select, evaluate, terminate employees)
- 3.3.13 Identify crisis management techniques

Academic Standards

- English: Analyze the features and structures of documents and critique them for their effectiveness. (Reading: Informational Text A, 11-12)
- Math: Estimate, compute and solve problems involving real numbers, including ratio, proportion and percent, and explain solutions. (Number G, 8-10)
- Social Studies: Identify factors which inhibit or spur economic growth and cause expansions or recessions. (Economics B, 11-12)

Benchmark: 3.6 Information Management

Level 1: Select and use a computer and computer application for a specific purpose

Level 2: Integrate software applications and use multiple software options to create a product, document or presentation

Indicators

- 3.6.01 Utilize technology to maintain and monitor business records
- 3.6.03 Create and utilize documents using word processors, spreadsheets, databases and electronic mail
- 3.6.04 Conduct oral/visual presentation using presentation software
- 3.6.06 Utilize personal information management/productivity applications
- 3.6.08 Adhere to common security guidelines for technology

Academic Standards

- English: Prepare writing for publication that follows an appropriate format and uses a variety of techniques to enhance the final product. (Writing Process F, 11-12)
- Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)

Benchmark: 3.7 Communication Skills

Level 1: Integrate a variety of communication techniques to gather and convey information to an individual or small group

Level 2: Conduct a business meeting using decision-making techniques

Indicators

- 3.7.09 Select and use appropriate channel for workplace communication
- 3.7.10 Practice etiquette when using communication techniques

Academic Standards

- English: Produce functional documents that report, organize and convey information and ideas accurately, foresee readers' problems or misunderstandings and that include formatting techniques that are user friendly. (Writing Applications C, 11-12)
- Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)
- Social Studies: Evaluate the reliability and credibility of sources. (Social Studies Skills and Methods A, 9-10)

Unit: Business Leadership

Students will learn different types of management styles, how to handle personal matters and conflict resolution skills. Students will develop team building activities to support a positive work environment, peer groups, professional organizations, and fostering positive working relationships.

Benchmark: 3.7 Communication Skills

Level 1: Integrate a variety of communication techniques to gather and convey information to an individual or small group

Level 2: Conduct a business meeting using decision-making techniques

Indicators

- 3.7.01 Apply techniques to participate in/facilitate a group discussion
- 3.7.02 Apply active listening strategies
- 3.7.03 Develop and deliver formal and informal presentations
- 3.7.04 Articulate ideas and impact audience through verbal and nonverbal communication
- 3.7.05 Communicate directions in an organized manner appropriate to the audience
- 3.7.06 Use consensus-building techniques, including parliamentary procedure, to make decisions and compile summary of meeting minutes, conclusions, and next steps
- 3.7.07 Extract relevant, valid information from materials and cite sources of information
- 3.7.08 Develop reports and documents that organize information accurately and use formatting techniques for user friendliness
- 3.7.09 Select and use appropriate channel for workplace communication
- 3.7.10 Practice etiquette when using communication techniques

Academic Standards

- English: Produce functional documents that report, organize and convey information and ideas accurately, foresee readers' problems or misunderstandings and that include formatting techniques that are user friendly. (Writing Applications C, 11-12)
- Math: Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations. (Algebra D, 8-10)
- Social Studies: Evaluate the reliability and credibility of sources. (Social Studies Skills and Methods A, 9-10)

Benchmark: 3.8 Business Leadership

Level 1: Determine appropriate leadership style for a specific situation and apply to the situation

Level 2: Use multiple leadership concepts to change situations and enhance effectiveness in the change process

Indicators

- 3.8.01 Identify the purpose of leadership, the ethical dimensions of leadership and the relationship between leaders and team members
- 3.8.02 Identify leadership styles and traits of leaders
- 3.8.03 Identify the impact of individual differences and different situations on the practice of leadership
- 3.8.04 Assess strengths and weaknesses of leaders and team members and employ team-building techniques
- 3.8.05 Participate in and lead a small group with an interdependent task
- 3.8.06 Think critically and use problem-solving skills to analyze complex and diverse concepts
- 3.8.07 Use reasoning, judgment and imagination to create new possibilities in situations
- 3.8.08 Manage time with organizational tools and prioritize objectives, responsibilities and tasks
- 3.8.09 Apply conflict-resolution skills
- 3.8.10 Recognize/reward others for their efforts and contributions
- 3.8.11 Develop relationships with peer groups, support services, and professional organizations

Academic Standards

- English: Use a variety of strategies to enhance listening comprehension. (Communication A, 8-10; Communication A, 11-12)
- Math: Locate and interpret mathematical information accurately, and communicate ideas, processes and solutions in a complete and easily understood manner. (Mathematical Processes H, 8-10)
- Social Studies: Critique data and information to determine the adequacy of support for conclusions. (Social Studies Skills and Methods B, 11-12)

Benchmark: 3.9 Emotional Intelligence

Level 1: Exhibit desirable personal and professional appearance, attitudes, behaviors, and work habits

Level 2: Exhibit techniques to control emotional reactions to people and situations

Indicators

- 3.9.01 Conduct an interpersonal and intrapersonal inventory
- 3.9.02 Identify how individual actions impact others
- 3.9.03 Manage personal emotions, behavior and appearance to maintain professionalism
- 3.9.04 Describe and exhibit appropriate ethical behavior
- 3.9.05 Accept and use constructive feedback to improve work habits
- 3.9.06 Employ appropriate coping skills to prevent/handle workplace conflicts
- 3.9.07 Recognize, respect and utilize the diversity among people and cultures
- 3.9.08 Foster positive working relationships

Academic Standards

English: Use a variety of strategies to enhance listening comprehension. (Communication A, 8-10; Communication A, 11-12)

Social Studies: Analyze how issues may be viewed differently by various cultural groups. (People in Societies A, 11-12)