Kentucky CTE

Agricultural Power, Structural and Technical Systems (2022)

ACADEMIC SKILLS

AA. SPEAKING AND LISTENING AA

1. Utilize effective verbal and non-verbal communication skills AA1
2. Participate in conversation, discussion and group presentations AA2
3. Communicate and follow directions/procedures AA3
4. Utilize speaking and listening skills to communicate effectively with customers and co-workers AA4

AB. READING AND WRITING AB

1. Locate and interpret written information AB1
2. Read and interpret workplace documents, e.g., reports, manuals, schematics, flowcharts, tables, graphs AB2
3. Identify relevant details, facts and specifications AB3
4. Record information accurately and completely AB4
5. Demonstrate competence in organizing, writing and editing using correct vocabulary, spelling, grammar and punctuation AB5
6. Demonstrate the ability to write clearly and concisely using industry-specific terminology AB6

AC. CRITICAL THINKING AND PROBLEM SOLVING AC

1. Utilize critical-thinking skills to determine best options/outcomes, e.g., analyze reliable/unreliable sources of information, use previous experiences, implement crisis management, develop contingency planning AC1
2. Utilize innovation and problem-solving skills to arrive at the best solution for the current situation AC2
3. Implement effective decision-making skills AC3

AD. MATHEMATICS AD

1. Perform basic and higher-level math operations, e.g., addition, subtraction, multiplication, division, decimals, fractions, units of conversion, averaging, percentage, proportion, ratios, numbering systems AD1
2. Solve problems using measurement skills, e.g., distance, weight, area, volume AD2

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3 Make reasonable estimates AD3

4 Use tables, graphs, diagrams and charts to obtain or convey information AD4

5 Use reasoning and problem-solving skills in mathematics AD5

AE. FINANCIAL LITERACY AE

1 Locate, evaluate and apply personal financial information AE1

2 Identify the components of a budget and how one is created AE2

3 Set personal financial goals and develop a plan for achieving them AE3

4 Describe types of financial service providers and considerations in selecting a provider AE4

5 Demonstrate ability to meet financial obligations AE5

AF. INTERNET USE AND SECURITY AF

1 Recognize the potential risks associated with internet and social media use AF1

2 Identify and apply internet security practices, e.g., password security, login, logout, log off, lock computer AF2

3 Practice safe, legal and responsible use of technology in the workplace AF3

AG. INFORMATION TECHNOLOGY AG

1 Use technology appropriately to enhance professional presentations AG1

2 Demonstrate effective, appropriate and ethical use of social media AG2

3 Identify ways social media can be used as marketing, advertising and data gathering tools AG3

AH. TELECOMMUNICATIONS AH

1 Select and utilize the appropriate environment, devices, services and applications to complete workplace tasks AH1

2 Demonstrate appropriate etiquette when using telecommunications, e.g., cell phone, e-mail, messaging services, online meetings, conference calls AH2

EMPLOYABILITY SKILLS

EA. POSITIVE WORK ETHIC EA

1 Explain the importance of pride and confidence about work and learning new tasks EA1

2 Demonstrate consistent and punctual attendance EA2

3 Demonstrate initiative in assuming tasks EA3

4 Exhibit dependability in the workplace EA4

5 Take and provide direction in the workplace EA5

6 Accept responsibility for personal decisions and actions EA6

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INTEGRITY EB

1. Abide by workplace policies and procedures, e.g., safety, internet and cell phone use, code of conduct EB1
2. Demonstrate honesty and reliability EB2
3. Demonstrate ethical characteristics and behaviors EB3
4. Maintain confidentiality and integrity of company information EB4
5. Support the mission and vision of the company EB5

EC. SELF-REPRESENTATION EC

1. Demonstrate appropriate dress and hygiene in the workplace EC1
2. Use language and manners suitable for the workplace EC2
3. Demonstrate polite and respectful behavior toward others EC3

ED. TIME, TASK AND RESOURCE MANAGEMENT ED

1. Plan and follow a work schedule ED1
2. Complete work tasks successfully with minimal supervision ED2
3. Work successfully within budgetary constraints ED3
4. Demonstrate ability to stay on task to produce high-quality deliverables on time ED4

EE. DIVERSITY AWARENESS EE

1. Define and differentiate diversity, equity, inclusion, discrimination and harassment EE1
2. Work effectively with all customers and co-workers EE2
3. Explain the benefits of diversity within the workplace EE3
4. Explain the importance of respect for the feelings, values and beliefs of others EE4
5. Identify strategies to bridge cultural/generational differences and use differing perspectives to increase the overall quality of work EE5
6. Illustrate techniques for eliminating bias and stereotyping in the workplace EE6
7. Identify ways tasks can be structured to accommodate the diverse needs of workers EE7
8. Recognize the challenges and advantages of a global workforce EE8

EF. TEAMWORK EF

1. Recognize the characteristics of a team environment and conventional workplace EF1
2. Demonstrate effective team skills, e.g., setting goals, listening, following directions, questioning, dividing work, conflict resolution, meeting facilitation, and evaluate their importance in the workplace EF2

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EG. CREATIVITY AND RESOURCEFULNESS EG

1. Explain the importance of contributing and conveying new ideas in the workplace EG1
2. Describe the importance of posing questions when developing ideas EG2
3. Explain the value of varying ideas and opinions EG3
4. Locate and verify information during the creative process EG4

EH. CONFLICT RESOLUTION EH

1. Identify conflict resolution skills to enhance productivity and improve workplace relationships EH1
2. Implement conflict resolution strategies and problem-solving skills EH2
3. Explain the use of documentation and its role as a component of conflict resolution EH3

EI. CUSTOMER/CLIENT SERVICE EI

1. Recognize the importance of and demonstrate how to properly greet/approach customers and clients EI1
2. Identify and address needs of customers/clients EI2
3. Provide helpful, courteous and knowledgeable service EI3
4. Identify appropriate channels of communication with customers/clients, e.g., online, phone call, faceto-face EI4
5. Identify techniques to seek and use customer/client feedback to improve company services EI5
6. Explain the relationship between customer/client satisfaction and company success EI6

EJ. ORGANIZATIONS, SYSTEMS AND CLIMATES EJ

1. Define profit and identify factors affecting the profitability of a business EJ1
2. Identify "big picture" issues in conducting business, e.g., forecasting, global market, risk management EJ2
3. Identify roles in fulfilling the mission of the workplace EJ3
4. Identify the rights of workers, e.g., adult and child labor laws, and other equal employment opportunity laws EJ4
5. Recognize the chain of command, organizational flow chart system and hierarchy of management within an organization EJ5

EK. JOB ACQUISITION AND ADVANCEMENT EK

1. Recognize the importance of maintaining a job and pursuing a career EK1
2. Define jobs associated with a specific career path or profession EK2
3. Identify and seek various work experience opportunities, e.g., volunteerism, internships, co-op, parttime/full-time employment EK3
4. Prepare a resume, cover letter and job application EK4

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5 Prepare for and participate in a job interview, e.g., research company, highlight personal strengths, prepare questions, conduct a mock interview, dress appropriately EK5

6 Explain the components of a successful job interview EK6

7 Identify key factors to evaluate employment offers, e.g., salary, benefits packages EK7

8 Explain the proper procedure for leaving a job EK8

EL. LIFELONG LEARNING EL

1 Acquire current and emerging industry-related information EL1

2 Demonstrate commitment to learning as a life-long process and recognize learning opportunities EL2

3 Identify various self-improvement opportunities EL3

4 Explain the importance of adaptability in career planning and self-management, e.g., diverse portfolio, credentials, professional development EL4

5 Employ leadership skills to achieve workplace objectives, e.g., personal vision, adaptability, change, shared vision EL5

6 Recognize the importance of job performance evaluation and coaching as it relates to career advancement EL6

7 Accept and provide constructive criticism EL7

8 Describe the impact of the global economy on jobs and careers EL8

EM. JOB SPECIFIC TECHNOLOGIES EM

1 Identify the value of new technologies and their impact on driving continuous change and the need for lifelong learning EM1

2 Research and identify emerging technologies for specific careers EM2

3 Select appropriate technological resources to accomplish work EM3

EN. HEALTH AND SAFETY EN

1 Identify and assume responsibility for the safety of self and others EN1

2 Follow safety guidelines in the workplace, e.g., OSHA, CDC EN2

3 Explain the impact of personal health and wellness on job performance EN3

OCCUPATIONAL SKILLS

OA. APPLY MANAGEMENT PLANNING PRINCIPLES IN AFNR BUSINESS ENTERPRISES OA

1 Evaluate how mission statements guide business goals, objectives and resource allocation OA1

2 Formulate individual/business goals and objectives OA2

3 Describe the impact of the US Farm Bill on the agriculture industry OA3

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4 Evaluate federal government and industry regulations, e.g., EPA, OSHA, USDA, NRCS, FSA, in planning/operating an AFNR business 0A4

5 Develop a budget, as applied to the AFNR business, including capital, human, financial and time, e.g., enterprise budget, time on investment, budget constraint 0A5

6 Describe how special interest groups, e.g., PETA, HSUS, Sierra Club, influence U.S. agricultural policy 0A6

7 Describe how proactive farm groups influence agricultural policy, e.g., KYFB, KY Pork Producers, KY Beef Council, KY Soybean Board, KY Corn Growers Association, Kentucky Poultry Federation, Kentucky Dairy Development Council 0A7

8 Analyze how communication technology, e.g., social media, print news, television, impacts public perception of the agriculture industry 0A8

9 Evaluate state government and industry regulations, e.g., KDA, KY Proud, livestock reports, in planning/operating an AFNR business 0A9

10 Identify related government agencies, their functions and programs, as they relate to agribusiness, e.g., Extension, KY Ag Finance, KY Ag Development 0A10

OB. USE RECORD KEEPING AND ACCOUNTING PROCESSES TO ACCOMPLISH AFNR OBJECTIVES, MANAGE BUDGETS AND COMPLY WITH LAWS AND REGULATIONS BUSINESS 0B

1 Maintain accurate production/agribusiness records, e.g., balance sheet, profit/loss sheet, enterprise budgets 0B1

2 Analyze records to improve efficiency and profitability of an AFNR business, e.g., liquidity and solvency, return on investment, repayment capacity 0B2

3 Compare types and terms of credit, e.g., line of credit, term loan, interest rate, credit establishment 0B3

4 Budget resources, as applied to the AFNR business, including capital, human, financial and time, e.g., enterprise budget, time on investment, budget constraint 0B4

5 Identify tax reporting requirements for income, property and employment associated with small AFNR businesses, e.g., Farm Business Management Program 0B5

6 Monitor inventory to maintain optimal levels and calculate costs of carrying input and output inventory 0B6

OC. DEVELOP A BUSINESS PLAN FOR AN AFNR ENTERPRISE OR BUSINESS UNIT 0C

1 Differentiate types of ownership/business structures, e.g., corporations, cooperatives, partnerships, sole proprietorships, non-profit, in a capitalistic economic system 0C1

2 Analyze businesses to determine strengths, weaknesses, opportunities and threats, i.e., SWOT Analysis 0C2

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3 Describe ways to assess and manage risks, e.g., financial, environmental, workplace, to reduce liability OC3

4 Describe how enterprise diversification can address production risks OC4

5 Analyze marketing techniques, e.g., contracts, futures, direct marketing, options that reduce risk OC5

6 Explain how insurance strategies minimize risk, e.g., property, liability, production/income loss, personal life and health, workman's comp, auto liability OC6

7 Describe the types and components of a risk management plan for an AFNR business, e.g., Water Quality Plan, HACCP OC7

8 Identify the effect of foreign policy on agricultural economics, e.g., tariffs, trade agreements, embargos OC8

9 Compare sources of credit, e.g., farm credit systems, grants, dealer credit OC9

OD. UTILIZE SALES AND MARKETING PRINCIPLES COMMON TO AGRIBUSINESS SYSTEMS TO ACCOMPLISH AFNR BUSINESS OBJECTIVES OD

1 Interpret the laws of supply and demand OD1

2 Compare and contrast macroeconomic and microeconomic concepts OD2

3 Discuss factors that influence buyer motivation, e.g., service, price, brand loyalty, product quality, product features OD3

4 Explain effective techniques that develop effective customer relationships OD4

5 Explain components of the sales process, e.g., personal rapport, needs and wants, features and benefits, objections, close OD5

6 Describe the meaning and use of the four P's, i.e., product, place, price and promotion, in marketing OD6

7 Analyze appropriate market and marketing research, e.g., target market, niche market, buyer profiles OD7

8 Compare the effectiveness of various marketing strategies for an AFNR business OD8

9 Develop a marketing plan for an agricultural product, service, or agribusiness OD9

10 Explain concepts associated with international markets, e.g., global food supply chain OD10

11 Assess the presence of marketing infrastructure for agricultural commodities, e.g., storage, transportation, processing OD11