



MISSISSIPPI  
DEPARTMENT OF  
EDUCATION

## 2022 Diversified Agriculture Agricultural Leadership

Program CIP: 01.0000—Agriculture, General

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The Research and Curriculum Unit (RCU), located in Starkville, as part of Mississippi State University (MSU), was established to foster educational enhancements and innovations. In keeping with the land-grant mission of MSU, the RCU is dedicated to improving the quality of life for Mississippians. The RCU enhances intellectual and professional development of Mississippi students and educators while applying knowledge and educational research to the lives of the people of the state. The RCU works within the contexts of curriculum development and revision, research, assessment, professional development, and industrial training.

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# Standards

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Standards and alignment crosswalks are referenced in the appendix. Depending on the curriculum, these crosswalks should identify alignment to the standards mentioned below, as well as possible related academic topics as required in the Subject Area Testing Program in Algebra I, Biology I, English II, and U.S. History from 1877, which could be integrated into the content of the units. Mississippi's CTE diversified agriculture agricultural leadership curriculum is aligned to the following standards:

## **National Agriculture, Food, and Natural Resources (AFNR) Career Cluster Content Standards**

The National AFNR Career Cluster Content Standards were developed by the National Council on Agricultural Education to serve as a guide for what students should know or be able to do through a study of agriculture in Grades 9-12 and two-year postsecondary programs. The standards were extensively researched and reviewed by leaders in the agricultural industry, secondary and postsecondary instructors, and university specialists. The standards consist of a pathway content standard for each of the eight career pathways. For each content standard, performance elements representing major topic areas with accompanying performance indicators were developed. Measurements of assessment of the performance elements and performance indicators were developed at the basic, intermediate, and advanced levels. A complete copy of the standards can be accessed at [thecouncil.ffa.org/afnr](http://thecouncil.ffa.org/afnr). The National AFNR Career Cluster Content Standards are copyrighted to the National Council for Agricultural Education and are used by permission.

## **International Society for Technology in Education Standards (ISTE)**

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[iste.org](http://iste.org)

## **College- and Career-Readiness Standards**

College- and career-readiness standards emphasize critical thinking, teamwork, and problem-solving skills. Students will learn the skills and abilities demanded by the workforce of today and the future. Mississippi adopted Mississippi College- and Career-Readiness Standards (MCCRS) to provide a consistent, clear understanding of what students are expected to learn and so teachers and parents know what they need to do to help them.

[mdek12.org/oea/college-and-career-readiness-standards](http://mdek12.org/oea/college-and-career-readiness-standards)

## **Framework for 21st Century Learning**

In defining 21st-century learning, the Partnership for 21st Century Skills has embraced key themes and skill areas that represent the essential knowledge for the 21st century: global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; environmental literacy; learning and innovation skills; information, media, and technology skills; and life and career skills. *21 Framework Definitions* (2019).

[battelleforkids.org/networks/p21/frameworks-resources](http://battelleforkids.org/networks/p21/frameworks-resources)

# Preface

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Secondary CTE programs in Mississippi face many challenges resulting from sweeping educational reforms at the national and state levels. Schools and teachers are increasingly being held accountable for providing applied learning activities to every student in the classroom. This accountability is measured through increased requirements for mastery and attainment of competency as documented through both formative and summative assessments. This document provides information, tools, and solutions that will aid students, teachers, and schools in creating and implementing applied, interactive, and innovative lessons. Through best practices, alignment with national standards and certifications, community partnerships, and a hands-on, student-centered concept, educators will be able to truly engage students in meaningful and collaborative learning opportunities.

The courses in this document reflect the statutory requirements as found in Section 37-3-49, *Mississippi Code of 1972*, as amended (Section 37-3-46). In addition, this curriculum reflects guidelines imposed by federal and state mandates (Laws, 1988, Ch. 487, §14; Laws, 1991, Ch. 423, §1; Laws, 1992, Ch. 519, §4 eff. from and after July 1, 1992; Strengthening Career and Technical Education for the 21st Century Act, 2019 [Perkins V]; and Every Student Succeeds Act, 2015).

# Mississippi Teacher Professional Resources

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The following are resources for Mississippi teachers:

Curriculum, Assessment, Professional Learning

Program resources can be found at the RCU's website, [rcu.msstate.edu](http://rcu.msstate.edu).

Learning Management System: An Online Resource

Learning management system information can be found at the RCU's website, under Professional Learning.

Should you need additional instructions, call the RCU at 662.325.2510.

# Executive Summary

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## **Pathway Description**

Agricultural leadership is a one-credit course within the diversified agriculture pathway. All students must complete principles of agriscience before being allowed to enroll in agricultural leadership. This course is designed to introduce students to the skills, attitudes, and habits that will enable them to be good leaders in both the agriculture industry and life. The program includes instruction in workplace skills, time management, and money management related to agricultural leadership and personal development. Students in the course will participate in active-learning exercises, including integral activities of the FFA organization and supervised experiences. Students who successfully complete the competencies in this course will possess fundamental knowledge and skills that can be used to secure entry-level employment or as a foundation for continuing their education.

## **College, Career, and Certifications**

No national industry-recognized certifications are known to exist at this time in the field of diversified agriculture. Competencies and suggested objectives in this course have been correlated, however, to the National AFNR Career Cluster Content Standards that have been reviewed and endorsed at the national level by the National Council on Agricultural Education.

## **Grade Level and Class Size Recommendations**

It is recommended that students enter this program as 10th-12th graders. Exceptions to this are a district-level decision based on class size, enrollment numbers, student maturity, and CTE delivery method. This is a classroom-based course. Therefore, a maximum of 25 students is recommended per class with only one class with the teacher at a time.

## **Student Prerequisites**

For students to experience success in the program, the following student prerequisites are suggested:

1. C or higher in English (the previous year)
  2. C or higher in high school-level math (last course taken or the instructor can specify the level of math instruction needed)
  3. Instructor approval and TABE reading score (eighth grade or higher)
- or**
1. TABE reading and math score (eighth grade or higher)
  2. Instructor approval
- or**
1. Instructor approval

## **Assessment**

The latest assessment blueprint for the curriculum can be found at [rcu.msstate.edu/curriculum/curriculumdownload](http://rcu.msstate.edu/curriculum/curriculumdownload).



### **Applied Academic Credit**

The latest academic credit information can be found at [mdek12.org/ese/approved-course-for-the-secondary-schools](http://mdek12.org/ese/approved-course-for-the-secondary-schools).

### **Teacher Licensure**

The latest teacher licensure information can be found at [mdek12.org/oel/apply-for-an-educator-license](http://mdek12.org/oel/apply-for-an-educator-license).

### **Professional Learning**

If you have specific questions about the content of any of the training sessions provided, please contact the RCU at 662.325.2510.

# Course Outlines

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## One 1-Carnegie Unit Course

This curriculum consists of one 1-credit course.

### **Diversified Agriculture Agricultural Leadership—Course Code: 991701**

<b>Unit</b>	<b>Title</b>	<b>Hours</b>
1	Introduction to Leadership and Personal Development	20
2	Communication Skills	15
3	Professional Presentations	30
4	Social Media	15
5	Team Building and Conflict Management	20
6	Workplace Essentials	30
7	Immersion Into FFA and Supervised Agricultural Experience (SAE) for All	10
<b>Total</b>		<b>140</b>

# Career Pathway Outlook

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## Overview

The agricultural sciences career cluster covers the broad field of occupations related to the production and use of plants and animals for food, fiber, aesthetic, and environmental purposes. According to the U.S. Department of Agriculture, during the next five years (2020-2025) 59,400 jobs are expected to open in food, agriculture, renewable natural resources, or the environment for graduates with bachelor's or higher degrees in those areas. Almost half of those jobs will be in management and business at 42%; 31% in science, technology, engineering, and math in agriculture; 13% in sustainable food and biomaterials production; and 14% in education, communication, and government services. According to USDA, agriculture, food, and related industries contributed \$1.109 trillion to the U.S. gross domestic product (GDP) in 2019. The Mississippi Department of Agriculture and Commerce reports that agriculture is Mississippi's number one industry at \$7.35 billion and employing approximately 17.4% of the state's workforce.

Diversified agriculture will target careers at the professional and technical levels in agriculture. Students enrolled in these courses should be better prepared to pursue degrees at the community college and four-year college levels.

## Needs of the Future Workforce

Data for this synopsis were compiled from the Mississippi Department of Employment Security (MDES) (2018). Employment opportunities for each of the occupations are listed below:

Table 1.1: Current and Projected Occupation Report

Description	Jobs, 2018	Projected Jobs, 2028	Change (Number)	Change (Percent)	Average Yearly Earnings, 2021
Agricultural and Food Science Technicians	260	270	10	3.9%	\$39,270
Agricultural Sciences Teachers, Postsecondary	150	160	10	6.7%	\$93,260
Career/Technical Education Teachers, Middle School	320	350	30	9.4%	\$47,270
Career/Technical Education Teachers, Secondary School	1220	1310	90	7.4%	\$50,370
Farmers, Ranchers, and Other Agricultural Managers	1,790	1,840	20	2.8%	\$55,830
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	980	1,090	110	11.2%	\$40,270

First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers	940	990	50	5.3%	\$54,550
Foresters	190	200	10	5.3%	\$52,660
Surveyors	450	470	20	4.4%	\$48,600
Surveying and Mapping Technicians	530	550	20	3.8%	\$39,840
Veterinarians	490	540	50	10.2%	\$81,950
Veterinary Assistants and Laboratory Animal Caretakers	970	1,090	120	12.4%	\$26,150
Veterinary Technologists and Technicians	570	630	60	10.5%	\$35,890
Vocational Education Teachers, Postsecondary	1310	1320	10	0.8%	\$51,590
Zoologists and Wildlife Biologists	260	270	10	3.9%	\$70,200

*Source:* Mississippi Department of Employment Security; mdes.ms.gov (2021).

### **Perkins V Requirements and Academic Infusion**

The agricultural leadership curriculum meets Perkins V requirements of introducing students to and preparing them for high-skill, high-wage occupations in agricultural fields. It also offers students a program of study, including secondary, postsecondary, and institutions of higher learning courses, that will further prepare them for careers in the agriculture industry. Additionally, this curriculum is integrated with academic college- and career-readiness standards. Lastly, it focuses on ongoing and meaningful professional development for teachers as well as relationships with industry.

### **Transition to Postsecondary Education**

The latest articulation information for secondary to postsecondary can be found at the Mississippi Community College Board website, [mccb.edu](http://mccb.edu).

## **Best Practices**

### *Innovative Instructional Technologies*

Classrooms should be equipped with tools that will teach today's digital learners through applicable and modern practices. The agricultural leadership educator's goal should be to include teaching strategies that incorporate current technology. To make use of the latest online communication tools—wikis, blogs, podcasts, and social media platforms, for example—the classroom teacher is encouraged to use a learning management system that introduces students to education in an online environment and places more of the responsibility of learning on the student.

### *Differentiated Instruction*

Students learn in a variety of ways, and numerous factors—students' background, emotional health, and circumstances, for example—create unique learners. By providing various teaching and assessment strategies, students with various learning preferences can have more opportunities to succeed.

### *CTE Student Organizations*

Teachers should investigate opportunities to sponsor a student organization. The National FFA Organization is the student organization for this pathway and will foster the types of learning expected from the agricultural leadership curriculum. FFA provides students with growth opportunities and competitive events and opens the doors to the world of agriculture and scholarship opportunities.

### *Cooperative Learning*

Cooperative learning can help students understand topics when independent learning cannot. Therefore, you will see several opportunities in the agricultural leadership curriculum for group work. To function in today's workforce, students need to be able to work collaboratively with others and solve problems without excessive conflict. The agricultural leadership curriculum provides opportunities for students to work together and help each other complete complex tasks. There are many field experiences within the agricultural leadership curriculum that will allow and encourage collaboration with professionals currently in the agriculture field.

### *Work-Based Learning*

Work-based learning is an extension of understanding competencies taught in the agricultural leadership classroom. This curriculum is designed in a way that necessitates active involvement by the students in the community around them and the global environment. These real-world connections and applications link all types of students to knowledge, skills, and professional dispositions. Work-based learning should encompass ongoing and increasingly more complex involvement with local companies and agriscience professionals. Thus, supervised collaboration and immersion into the agriculture industry around the students are keys to students' success, knowledge, and skills development.

# Professional Organizations

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American Association for Agricultural Education (AAAE)

[aaaeonline.org](http://aaaeonline.org)

Association for Career and Technical Education (ACTE)

[acteonline.org](http://acteonline.org)

Mississippi FFA/Mississippi Association of Vocational Agriculture Teachers (MAVAT)

[mississippiffa.org](http://mississippiffa.org)

Mississippi ACTE (MS ACTE)

[mississippiacte.com](http://mississippiacte.com)

National Association of Agricultural Educators (NAAE)

[naae.org](http://naae.org)

National FFA Organization

[ffa.org](http://ffa.org)

# Using This Document

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## Competencies and Suggested Objectives

A competency represents a general concept or performance that students are expected to master as a requirement for satisfactorily completing a unit. Students are expected to receive instruction on all competencies. The suggested objectives represent the enabling and supporting knowledge and performances that will indicate mastery of the competency at the course level. Teachers are welcome to teach the competencies in other ways than the listed objectives if it allows for mastery of the competencies. Teachers are also allowed to teach the units and competencies in the order that they prefer, as long as they teach necessary material allotted for that specific course or credit they are teaching at the time.

## Teacher Resources

Teacher resources for this curriculum may be found in multiple places. Many program areas have teacher resource documents that accompany the curriculum and can be downloaded from the same site as the curriculum. The teacher resource document contains references, lesson ideas, websites, teaching and assessment strategies, scenarios, skills to master, and other resources divided by unit. This document could be updated periodically by RCU staff. Please check the entire document, including the entries for each unit, regularly for new information. If you have something you would like to add or have a question about the document, call or email the RCU's instructional design specialist for your program. The teacher resource document can be downloaded at [rcu.msstate.edu/curriculum/curriculumdownload.aspx](http://rcu.msstate.edu/curriculum/curriculumdownload.aspx). All teachers should request to be added to the Canvas Resource Guide for their course. This is where all resources will be housed in the future if they are not already. To be added to the guide, [send a Help Desk ticket to the RCU](#) by emailing [helpdesk@rcu.msstate.edu](mailto:helpdesk@rcu.msstate.edu).

## Perkins V Quality Indicators and Enrichment Material

Some of the units may include an enrichment section at the end. If the diversified agriculture agricultural leadership program is currently using the Mississippi Career Planning and Assessment System (MS-CPAS) as a measure of accountability, the enrichment section of material will not be tested. If this is the case, it is suggested to use the enrichment material when needed or desired by the teacher and if time allows in the class. This material will greatly enhance the learning experiences for students. If, however, the diversified agriculture agricultural leadership program is using a national certification, work-based learning, or other measure of accountability that aligns with Perkins V as a quality indicator, this material could very well be tested on that quality indicator. It is the responsibility of the teacher to ensure all competencies for the selected quality indicator are covered throughout the year.

# Unit 1: Introduction to Leadership and Personal Development

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<b>Competencies and Suggested Objectives</b>
<p>1. Analyze various definitions of leadership. <sup>DOK2</sup></p> <ul style="list-style-type: none"><li>a. Discuss common leadership themes.<ul style="list-style-type: none"><li>• Autocratic</li><li>• Democratic</li><li>• Laissez-faire</li></ul></li><li>b. Compare and contrast leadership styles of influential people throughout history.</li><li>c. Evaluate myths about leaders and leadership.</li><li>d. Compare and contrast leadership operations of local, state, and national government agencies.</li><li>e. Identify qualities of a good leader.<ul style="list-style-type: none"><li>• Integrity</li><li>• Knowledge</li><li>• Courage</li><li>• Tactfulness</li><li>• Enthusiasm</li><li>• Unselfishness</li><li>• Loyalty</li></ul></li></ul>
<p>2. Explore key aspects of effective personal development. <sup>DOK1</sup></p> <ul style="list-style-type: none"><li>a. Determine essential factors of personal growth and development.<ul style="list-style-type: none"><li>• Time</li><li>• Urgency</li><li>• Priority</li><li>• Daily planning</li><li>• Weekly planning</li><li>• Scheduling</li><li>• Procrastination</li><li>• Organization</li><li>• Self-discipline</li></ul></li></ul>
<p>3. Identify and establish personal goal-setting criteria. <sup>DOK1</sup></p> <ul style="list-style-type: none"><li>a. Identify the rules for establishing a Specific, Measurable, Attainable, Realistic, and Timely (SMART) goal.</li><li>b. Develop personal short- and long-term SMART goals.</li></ul>
<p>4. Examine personality types using various personality and character evaluations. <sup>DOK2</sup></p> <ul style="list-style-type: none"><li>a. Discuss how personality types affect personal, professional, and interpersonal development and relationships.</li><li>b. Complete a personality inventory activity (e.g., Myers-Briggs, Clifton Strengths, Real Colors, enneagram, etc.).</li></ul>



## Unit 2: Communication Skills

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<b>Competencies and Suggested Objectives</b>
<p>1. Define communication. <sup>DOK1</sup></p> <p>a. Discuss the different types of communication.</p> <ul style="list-style-type: none"><li>• Verbal<ul style="list-style-type: none"><li>○ Articulation</li><li>○ Volume</li><li>○ Inflection</li><li>○ Tone</li><li>○ Pace</li></ul></li><li>• Nonverbal<ul style="list-style-type: none"><li>○ Eye contact</li><li>○ Mannerisms and gestures</li><li>○ Poise</li><li>○ Confidence</li></ul></li><li>• Digital<ul style="list-style-type: none"><li>○ Synchronous</li><li>○ Asynchronous</li></ul></li></ul> <p>b. Explore the various communication methods used in business.</p>
<p>2. Examine the communication cycle. <sup>DOK2</sup></p> <p>a. Identify the steps in communication (i.e., send [encodes], receive [decodes], message, feedback, channel, and noise).</p> <p>b. Discuss the characteristics of poor and effective listening skills.</p> <ul style="list-style-type: none"><li>• Passive</li><li>• Active</li></ul> <p>c. Explore common communication barriers.</p>
<p>3. Apply the fundamentals of communication. <sup>DOK3</sup></p> <p>a. Demonstrate written communication techniques using various applications.</p> <ul style="list-style-type: none"><li>• Handwritten (e.g., letters, thank you notes, memos, etc.)</li><li>• Electronic (e.g., email, slide presentations, etc.)</li></ul>

## Unit 3: Professional Presentations

<b>Competencies and Suggested Objectives</b>
1. Identify different types of oral presentations. <sup>DOK1</sup> a. Distinguish between the different types of speeches and presentations. <ul style="list-style-type: none"><li>• Informative (e.g., research)</li><li>• Instructive</li><li>• Demonstrative</li><li>• Persuasive</li><li>• Motivational</li><li>• Special occasion</li><li>• Debate</li><li>• Virtual</li></ul>
2. Identify different ways to enhance a presentation. <sup>DOK1</sup> a. Identify the types of tools used to enhance a presentation. <ul style="list-style-type: none"><li>• Posters</li><li>• Slide presentations</li><li>• Models</li><li>• Sound equipment</li><li>• Podiums/lecterns</li></ul>
3. Determine the appropriate situation for various types of presentations. <sup>DOK1</sup> a. Identify the appropriate type of presentation based on a specific audience or purpose. <ul style="list-style-type: none"><li>• Who?</li><li>• What?</li><li>• When?</li><li>• Where?</li><li>• Why?</li><li>• How?</li></ul>
4. Discuss techniques used to overcome a fear of public speaking. <sup>DOK1</sup>
5. Identify the steps used to prepare a professional presentation. <sup>DOK2</sup> a. Discuss and apply the steps necessary to develop a professional presentation. <ul style="list-style-type: none"><li>• Topic selection</li><li>• Brainstorming</li><li>• Research</li><li>• Outlining</li><li>• Rough drafts</li><li>• Final draft</li></ul>
6. Create a research-based presentation or speech. <sup>DOK 2</sup>

## Unit 4: Social Media

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<b>Competencies and Suggested Objectives</b>
1. Establish the impact of a positive and negative social media presence. <sup>DOK3</sup> <ol style="list-style-type: none"><li>Investigate personal social media image.</li><li>Identify one's existing social media presence.</li><li>Assess, improve, and maintain a personal social media presence.</li></ol>
2. Identify appropriate uses of social media. <sup>DOK2</sup> <ol style="list-style-type: none"><li>Compare and contrast social media policies.<ul style="list-style-type: none"><li>School or district (e.g., photo releases, personal accounts, etc.)</li><li>Student organizations (e.g., local, state, and national)</li><li>Social media platforms</li><li>Industry</li></ul></li><li>Determine appropriate social media strategies for engaging with various audiences.<ul style="list-style-type: none"><li>Post scheduling</li><li>Language</li><li>Content</li></ul></li><li>Review policies and guidelines for personal internet safety.<ul style="list-style-type: none"><li>Cyberbullying</li><li>Phishing</li><li>Explicit content</li></ul></li><li>Determine ways to verify the authenticity of information posted online.</li></ol>
3. Determine how social media impacts professional environments. <sup>DOK2</sup> <ol style="list-style-type: none"><li>Identify scenarios where social media has a positive or negative impact.<ul style="list-style-type: none"><li>Employment</li><li>Morale</li><li>Recruitment</li><li>Content sensitivity</li><li>Reputation</li><li>Conflict</li><li>Potential consequences (prior or during employment)</li></ul></li></ol>

## Unit 5: Team Building and Conflict Management

<b>Competencies and Suggested Objectives</b>	
1. Define the stages of working with a team. <sup>DOK1</sup>	<ol style="list-style-type: none"><li>Forming—The team is established and develops ground rules and expectations.</li><li>Storming—Members communicate their thoughts and opinions without control by group leaders.</li><li>Norming—Members feel part of the team and can achieve goals by working together.</li><li>Performing—The team works in an open and trusting environment with flexibility.</li><li>Adjourning—The team assesses the project and implements a plan for transition.</li></ol>
2. Define interpersonal relationships and associated terminology. <sup>DOK2</sup>	<ol style="list-style-type: none"><li>Discuss interpersonal relationships in customer service, business relationships, and employee-employer relationships.</li><li>Discuss diversity issues that can impact interpersonal relationships.</li><li>Examine discrimination and other negative actions or attitudes that can impact interpersonal relationships.</li><li>Demonstrate techniques to combat bullying.</li></ol>
3. Demonstrate interpersonal skills that contribute to positive work relationships. <sup>DOK2</sup>	<ol style="list-style-type: none"><li>Identify the characteristics and benefits of positive work relationships.</li><li>Discuss the concept of teamwork in the workplace.</li><li>Demonstrate teamwork skills in problem-solving.</li><li>Develop the skills needed to maintain effective working relationships.</li></ol>
4. Demonstrate the use of proper procedures for solving conflicts with coworkers, supervisors, and/or customers. <sup>DOK2</sup>	<ol style="list-style-type: none"><li>Demonstrate problem-solving and negotiation skills.</li><li>Explore conflict management skills.</li></ol>
5. Demonstrate the dynamics of team building. <sup>DOK2</sup>	<ol style="list-style-type: none"><li>Conduct a small-group team building activity.<ul style="list-style-type: none"><li>Plan and conduct a chapter meeting or activity.</li><li>Agricultural Sales Career Development Event (CDE)</li><li>Marketing Plan CDE</li></ul></li><li>Conduct a large-group team building activity.<ul style="list-style-type: none"><li>Organize and conduct a class community service project.</li><li>Develop a Program of Activities (POA).</li><li>Develop a fundraising plan.</li></ul></li></ol>

## Unit 6: Workplace Essentials

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<b>Competencies and Suggested Objectives</b>
1. Research career opportunities and employment skills. <sup>DOK2</sup> <ol style="list-style-type: none"><li>Create an application letter, a résumé, a follow-up letter, and a letter of resignation.</li><li>Demonstrate appropriate interview skills for face-to-face and phone interviews.</li><li>Discuss the importance of career opportunities and advancement.</li></ol>
2. Demonstrate appropriate workplace ethics. <sup>DOK2</sup> <ol style="list-style-type: none"><li>Critique the behavior of professionals to determine whether their actions and decisions are ethical.</li><li>Discuss privacy issues and safeguarding information in leadership roles and professional settings.</li><li>Explain sexual harassment and a hostile work environment.</li><li>Discuss workplace behavior and the legal ramifications of unethical behavior.</li><li>Explain the employee's role in ethical use of business property.</li><li>Discuss the role of ethics in business operations.</li><li>Examine pay and advancement differences based on personal development criteria.</li><li>Investigate the role of the human resources department in the work environment.</li></ol>
3. Demonstrate appropriate professional etiquette skills. <sup>DOK2</sup> <ol style="list-style-type: none"><li>Demonstrate appropriate greetings and introductions.</li><li>Demonstrate appropriate table etiquette in a business setting.</li><li>Demonstrate appropriate professional dress for interviews and the workplace.</li><li>Discuss personal hygiene and professional behavior.</li></ol>

<b>Enrichment</b>
1. Ask a local human resources representative to speak to the class about the rules and regulations in the work environment.

## Unit 7: Immersion Into FFA and Supervised Agricultural Experience (SAE) for All

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### Competencies and Suggested Scenarios

1. Participate in local, state, and/or national FFA activities that provide opportunities for leadership development and career exploration. <sup>DOK3</sup>
  - a. Actively participate in FFA activities.
    - Leadership Development Events (LDEs)
      - Prepared Public Speaking
      - Extemporaneous Speaking
      - Creed Speaking
      - Employment Skills
      - Agricultural Issues Forum
    - Career Development Events (CDEs)
      - Agricultural Sales
      - Marketing Plan
      - Agricultural Communications
    - Leadership retreats or conferences
    - Industry-related seminars, workshops, or conferences
    - Other related FFA activities
2. Apply concepts learned from the school-based agricultural education program to continue the progression of immersion SAEs. <sup>DOK 4</sup>
  - a. Redefine and adjust requirements of agreements between the student, parents, supervisor, and/or employer.
  - b. Update SAE records using an electronic/computer-based system of record keeping.
    - SAE program goals
    - Student inventory related to the SAE program
    - Expense records
    - Income/gift and scholarship records
    - Skill-attainment records
    - Leadership-activity records and participation in FFA activities
    - Community service hours
  - c. Complete degree and proficiency award applications as they apply to the SAE.

# Student Competency Profile

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Student's Name: \_\_\_\_\_

This record is intended to serve as a method of noting student achievement of the competencies in each unit. It can be duplicated for each student, and it can serve as a cumulative record of competencies achieved in the course.

In the blank before each competency, place the date on which the student mastered the competency.

<b>Unit 1: Introduction to Leadership and Personal Development</b>		
	1.	Analyze various definitions of leadership.
	2.	Explore key aspects of effective personal development.
	3.	Identify and establish personal goal-setting criteria.
	4.	Examine personality types using various personality and character evaluations.
<b>Unit 2: Communication Skills</b>		
	1.	Define communication.
	2.	Examine the communication cycle.
	3.	Apply the fundamentals of communication.
<b>Unit 3: Professional Presentations</b>		
	1.	Identify different types of oral presentations.
	2.	Identify different ways to enhance a presentation.
	3.	Determine the appropriate situation for various types of presentations.
	4.	Discuss techniques used to overcome a fear of public speaking.
	5.	Identify the steps used to prepare a professional presentation.
	6.	Create a research-based presentation or speech.
<b>Unit 4: Social Media</b>		
	1.	Establish the impact of a positive and negative social media presence.
	2.	Identify appropriate uses of social media.
	3.	Determine how social media impacts professional environments.
<b>Unit 5: Team Building and Conflict Management</b>		
	1.	Define the stages of working with a team.
	2.	Define interpersonal relationships and associated terminology.
	3.	Demonstrate interpersonal skills that contribute to positive work relationships.

	4.	Demonstrate the use of proper procedures for solving conflicts with coworkers, supervisors, and/or customers.
	5.	Demonstrate the dynamics of team building.
<b>Unit 6: Workplace Essentials</b>		
	1.	Research career opportunities and employment skills.
	2.	Demonstrate appropriate workplace ethics.
	3.	Demonstrate appropriate professional etiquette skills.
<b>Unit 7: Immersion Into FFA and Supervised Agricultural Experience (SAE) for All</b>		
	1.	Participate in local, state, and/or national FFA activities that provide opportunities for leadership development and career exploration.
	2.	Apply concepts learned from the school-based agricultural education program to continue the progression of immersion SAEs. <sup>DOK 4</sup>



## Appendix: Industry Standards

Framework for AFNR Content Standards and Performance Elements Crosswalk for Diversified Agriculture Agricultural Leadership								
	Unit	1	2	3	4	5	6	7
AFNR								
ABS- Agribusiness Systems			X				X	X
AS- Animal Systems								
BS- Biotechnology								
CRP- Career Ready Practices		X	X	X	X	X	X	X
CS- AFNR Cluster Skill		X	X	X	X	X	X	X
ES- Environmental Service Systems								
FPP- Food Products and Processing Systems								
NRS- Natural Resource Systems								
PS- Plant Systems								
PST- Power, Structural, and Technical Systems								

### AFNR Pathway Content Standards and Performance Elements

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**ABS AGRIBUSINESS SYSTEMS**  
**AS ANIMAL SYSTEMS**  
**BS BIOTECHNOLOGY**  
**CRP CAREER READY PRACTICES**  
**CS AGRICULTURE FOOD AND NATURAL RESOURCES CLUSTER SKILL**  
**ES ENVIRONMENTAL SERVICE SYSTEMS**  
**FPP FOOD PRODUCTS AND PROCESSING SYSTEMS**  
**NRS NATURAL RESOURCE SYSTEMS**  
**PS PLANT SYSTEMS**  
**PST POWER, STRUCTURAL, AND TECHNICAL SYSTEMS**

## Agribusiness Systems Career Pathway Content Standards

The Agribusiness Systems (ABS) Career Pathway encompasses the study of agribusinesses and their management including, but not limited to, record keeping, budget management (cash and credit), and business planning, and sales and marketing. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the planning, development, application and management of agribusiness systems in AFNR settings.

Within each pathway, the standards are organized as follows:

- **Common Career Technical Core (CCTC) Standards** – These are the standards for Agribusiness Systems (AG-ABS) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- **Performance Indicators** – These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

**ABS.01. CCTC Standard:** Apply management planning principles in AFNR businesses.

**ABS.01.01. Performance Indicator:** Apply micro- and macroeconomic principles to plan and manage inputs and outputs in an AFNR business.

**ABS.01.02. Performance Indicator:** Read, interpret, evaluate and write statements of purpose to guide business goals, objectives and resource allocation.

**ABS.01.03. Performance Indicator:** Devise and apply management skills to organize and run an AFNR business in an efficient, legal and ethical manner.

**ABS.01.04. Performance Indicator:** Evaluate, develop and implement procedures used to recruit, train and retain productive human resources for AFNR businesses.

**ABS.02. CCTC Standard:** Use record keeping to accomplish AFNR business objectives, manage budgets and comply with laws and regulations.

**ABS.02.01. Performance Indicator:** Apply fundamental accounting principles, systems, tools and applicable laws and regulations to record, track and audit AFNR business transactions (e.g., accounts, debits, credits, assets, liabilities, equity, etc.).

**ABS.02.02. Performance Indicator:** Assemble, interpret and analyze financial information and reports to monitor AFNR business performance and support decision-making (e.g., income statements, balance sheets, cash-flow analysis, inventory reports, break-even analysis, return on investment, taxes, etc.).

**ABS.03. CCTC Standard:** Manage cash budgets, credit budgets and credit for an AFNR business using generally accepted accounting principles.

**ABS.03.01. Performance Indicator:** Develop, assess and manage cash budgets to achieve AFNR business goals.

**ABS.03.02. Performance Indicator:** Analyze credit needs and manage credit budgets to achieve AFNR business goals.

**ABS.04. CCTC Standard:** Develop a business plan for an AFNR business.

**ABS.04.01. Performance Indicator:** Analyze characteristics and planning requirements associated with developing business plans for different types of AFNR businesses.

**ABS.04.02. Performance Indicator:** Develop production and operational plans for an AFNR business.

**ABS.04.03. Performance Indicator:** Identify and apply strategies to manage or mitigate risk.

**ABS.05. CCTC Standard:** Use sales and marketing principles to accomplish AFNR business objectives.

**ABS.05.01. Performance Indicator:** Analyze the role of markets, trade, competition and price in relation to an AFNR business sales and marketing plans.

**ABS.05.02. Performance Indicator:** Assess and apply sales principles and skills to accomplish AFNR business objectives.

**ABS.05.03. Performance Indicator:** Assess marketing principles and develop marketing plans to accomplish AFNR business objectives.

## Animal Systems Career Pathway Content Standards

The Animal Systems (AS) Career Pathway encompasses the study of animal systems, including content areas such as life processes, health, nutrition, genetics, and management and processing, as applied to small animals, aquaculture, exotic animals, livestock, dairy, horses and/or poultry. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application and management of animal systems in AFNR settings.

Within each pathway, the standards are organized as follows:

- **Common Career Technical Core (CCTC) Standards** – These are the standards for Animal Systems (AG-AS) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- **Performance Indicators** – These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

**AS.01. CCTC Standard:** Analyze historic and current trends impacting the animal systems industry.

**AS.01.01. Performance Indicator:** Evaluate the development and implications of animal origin, domestication and distribution on production practices and the environment.

**AS.01.02. Performance Indicator:** Assess and select animal production methods for use in animal systems based upon their effectiveness and impacts.

- AS.01.03. Performance Indicator:** Analyze and apply laws and sustainable practices to animal agriculture from a global perspective.
- AS.02. CCTC Standard:** Utilize best-practice protocols based upon animal behaviors for animal husbandry and welfare.
- AS.02.01. Performance Indicator:** Demonstrate management techniques that ensure animal welfare.
- AS.02.02. Performance Indicator:** Analyze procedures to ensure that animal products are safe for consumption (e.g., use in food system, etc.).
- AS.03. CCTC Standard:** Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction and/or economic production.
- AS.03.01. Performance Indicator:** Analyze the nutritional needs of animals.
- AS.03.02 Performance Indicator:** Analyze feed rations and assess if they meet the nutritional needs of animals.
- AS.03.03 Performance Indicator:** Utilize industry tools to make animal nutrition decisions.
- AS.04. CCTC Standard:** Apply principles of animal reproduction to achieve desired outcomes for performance, development and/or economic production.
- AS.04.01. Performance Indicator:** Evaluate animals for breeding readiness and soundness.
- AS.04.02. Performance Indicator:** Apply scientific principles to select and care for breeding animals.
- AS.04.03 Performance Indicator:** Apply scientific principles to breed animals.
- AS.05. CCTC Standard:** Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.
- AS.05.01. Performance Indicator:** Design animal housing, equipment and handling facilities for the major systems of animal production.
- AS.05.02. Performance Indicator:** Comply with government regulations and safety standards for facilities used in animal production.
- AS.06. CCTC Standard:** Classify, evaluate and select animals based on anatomical and physiological characteristics.
- AS.06.01. Performance Indicator:** Classify animals according to taxonomic classification systems and use (e.g. agricultural, companion, etc.).
- AS.06.02. Performance Indicator:** Apply principles of comparative anatomy and physiology to uses within various animal systems.
- AS.06.03. Performance Indicator:** Select and train animals for specific purposes and maximum performance based on anatomy and physiology.
- AS.07. CCTC Standard:** Apply principles of effective animal health care.
- AS.07.01. Performance Indicator:** Design programs to prevent animal diseases, parasites and other disorders and ensure animal welfare.

**AS.07.02. Performance Indicator:** Analyze biosecurity measures utilized to protect the welfare of animals on a local, state, national, and global level.

**AS.08. CCTC Standard:** Analyze environmental factors associated with animal production.

**AS.08.01. Performance Indicator:** Design and implement methods to reduce the effects of animal production on the environment.

**AS.08.02. Performance Indicator:** Evaluate the effects of environmental conditions on animals and create plans to ensure favorable environments for animals.

## **Common Career Technical Core Career Ready Practices Content Standards**

The CCTC CRPs encompass fundamental skills and practices that all students should acquire to be career ready such as: responsibility, productivity, healthy choices, maintaining personal finances, communication, decision-making, creativity and innovation, critical-thinking, problem solving, integrity, ethical leadership, management, career planning, technology use and cultural/global competency. Students completing a program of study in any AFNR career pathway will demonstrate the knowledge, skills and behaviors that are important to career ready through experiences in a variety of settings (e.g., classroom, CTSO, work-based learning, community etc.).

**DEFINITIONS:** Within each pathway, the standards are organized as follows:

- **Common Career Technical Core (CCTC) Standards** – These are the standards for CRPs from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- **Performance Indicators** –These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a CTE program of study.

**CRP.01. CCTC Standard:** Act as a responsible and contributing citizen and employee.

**CRP.01.01. Performance Indicator:** Model personal responsibility in the workplace and community.

**CRP.01.02 Performance Indicator:** Evaluate and consider the near-term and long-term impacts of personal and professional decisions on employers and community before taking action.

**CRP.01.03. Performance Indicator:** Identify and act upon opportunities for professional and civic service at work and in the community.

**CRP.02. CCTC Standard:** Apply appropriate academic and technical skills.

**CRP.02.01. Performance Indicator:** Use strategic thinking to connect and apply academic learning, knowledge and skills to solve problems in the workplace and community.

**CRP.02.02. Performance Indicator:** Use strategic thinking to connect and apply technical concepts to solve problems in the workplace and community.

**CRP.03. CCTC Standard:** Attend to personal health and financial well-being.

**CRP.03.01. Performance Indicator:** Design and implement a personal wellness plan.

**CRP.03.02. Performance Indicator:** Design and implement a personal financial management plan.

**CRP.04. CCTC Standard:** Communicate clearly, effectively and with reason.

**CRP.04.01. Performance Indicator:** Speak using strategies that ensure clarity, logic, purpose and professionalism in formal and informal settings.

**CRP.04.02. Performance Indicator:** Produce clear, reasoned and coherent written and visual communication in formal and informal settings.

**CRP.04.03. Performance Indicator:** Model active listening strategies when interacting with others in formal and informal settings.

**CRP.05. CCTC Standard:** Consider the environmental, social and economic impacts of decisions.

**CRP.05.01. Performance Indicator:** Assess, identify and synthesize the information and resources needed to make decisions that positively impact the workplace and community.

**CRP.05.02. Performance Indicator:** Make, defend and evaluate decisions at work and in the community using information about the potential environmental, social and economic impacts.

**CRP.06. CCTC Standard:** Demonstrate creativity and innovation.

**CRP.06.01. Performance Indicator:** Synthesize information, knowledge and experience to generate original ideas and challenge assumptions in the workplace and community.

**CRP.06.02. Performance Indicator:** Assess a variety of workplace and community situations to identify ways to add value and improve the efficiency of processes and procedures.

**CRP.06.03. Performance Indicator:** Create and execute a plan of action to act upon new ideas and introduce innovations to workplace and community organizations.

**CRP.07. CCTC Standard:** Employ valid and reliable research strategies.

**CRP.07.01. Performance Indicator:** Select and implement reliable research processes and methods to generate data for decision-making in the workplace and community.

**CRP.07.02. Performance Indicator:** Evaluate the validity of sources and data used when considering the adoption of new technologies, practices and ideas in the workplace and community.

**CRP.08. CCTC Standard:** Utilize critical thinking to make sense of problems and persevere in solving them.

**CRP.08.01. Performance Indicator:** Apply reason and logic to evaluate workplace and community situations from multiple perspectives.

**CRP.08.02. Performance Indicator:** Investigate, prioritize and select solutions to solve problems in the workplace and community.

**CRP.08.03. Performance Indicator:** Establish plans to solve workplace and community problems and execute them with resiliency.

**CRP.09. CCTC Standard:** Model integrity, ethical leadership and effective management.

**CRP.09.01. Performance Indicator:** Model characteristics of ethical and effective leaders in the workplace and community (e.g. integrity, self-awareness, self-regulation, etc.).

**CRP.09.02. Performance Indicator:** Implement personal management skills to function effectively and efficiently in the workplace (e.g., time management, planning, prioritizing, etc.).

**CRP.09.03. Performance Indicator:** Demonstrate behaviors that contribute to a positive morale and culture in the workplace and community (e.g., positively influencing others, effectively communicating, etc.).

**CRP.10. CCTC Standard:** Plan education and career path aligned to personal goals.

**CRP.10.01. Performance Indicator:** Identify career opportunities within a career cluster that match personal interests, talents, goals and preferences.

**CRP.10.02. Performance Indicator:** Examine career advancement requirements (e.g., education, certification, training, etc.) and create goals for continuous growth in a chosen career.

**CRP.10.03. Performance Indicator:** Develop relationships with and assimilate input and/or advice from experts (e.g., counselors, mentors, etc.) to plan career and personal goals in a chosen career area.

**CRP.10.04. Performance Indicator:** Identify, prepare, update and improve the tools and skills necessary to pursue a chosen career path.

**CRP.11. CCTC Standard:** Use technology to enhance productivity.

**CRP.11.01. Performance Indicator:** Research, select and use new technologies, tools and applications to maximize productivity in the workplace and community.

**CRP.11.02. Performance Indicator:** Evaluate personal and organizational risks of technology use and take actions to prevent or minimize risks in the workplace and community.

**CRP.12. CCTC Standard:** Work productively in teams while using cultural/global competence.

**CRP.12.01. Performance Indicator:** Contribute to team-oriented projects and builds consensus to accomplish results using cultural global competence in the workplace and community.

**CRP.12.02. Performance Indicator:** Create and implement strategies to engage team members to work toward team and organizational goals in a variety of workplace and community situations (e.g., meetings, presentations, etc.).

## **Agriculture, Food, and Natural Resources Cluster Skill Content Standards**

The AFNR Cluster Skills (CS) encompasses the study of fundamental knowledge and skills related to all AFNR professions. Students completing a program of study in any AFNR career

pathway will demonstrate fundamental knowledge of the nature, scope and relationships of AFNR systems and the skills necessary for analysis of current and historical issues and trends; application of technologies; safety, health and environmental practices; stewardship of natural resources; and exploration of career opportunities.

Within each pathway, the standards are organized as follows:

- **Common Career Technical Core (CCTC) Standards** – These are the standards for Agriculture, Food and Natural Resources Career Cluster® (AG) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- **Performance Indicators** – These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

**CS.01. CCTC Standard:** Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster.

**CS.01.01. Performance Indicator:** Research, examine and discuss issues and trends that impact AFNR systems on local, state, national and global levels.

**CS.01.02. Performance Indicator:** Examine technologies and analyze their impact on AFNR systems.

**CS.01.03. Performance Indicator:** Identify public policies and examine their impact on AFNR systems.

**CS.02. CCTC Standard:** Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy.

**CS.02.01. Performance Indicator:** Research and use geographic and economic data to solve problems in AFNR systems.

**CS.02.02. Performance Indicator:** Examine the components of the AFNR systems and assess their impact on the local, state, national and global society and economy.

**CS.03. CCTC Standard:** Examine and summarize the importance of health, safety and environmental management systems in AFNR workplaces.

**CS.03.01. Performance Indicator:** Identify and explain the implications of required regulations to maintain and improve safety, health and environmental management systems.

**CS.03.02. Performance Indicator:** Develop and implement a plan to maintain and improve health, safety and environmental compliance and performance.

**CS.03.03. Performance Indicator:** Apply health and safety practices to AFNR workplaces.

**CS.03.04. Performance Indicator:** Use appropriate protective equipment and demonstrate safe and proper use of AFNR tools and equipment.



- CS.04. CCTC Standard:** Demonstrate stewardship of natural resources in AFNR activities.
- CS.04.01. Performance Indicator:** Identify and implement practices to steward natural resources in different AFNR systems.
- CS.04.02. Performance Indicator:** Assess and explain the natural resource related trends, technologies and policies that impact AFNR systems.
- CS.05. CCTC Standard:** Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.
- CS.05.01. Performance Indicator:** Evaluate and implement the steps and requirements to pursue a career opportunity in each of the AFNR career pathways (e.g., goals, degrees, certifications, resumes, cover letter, portfolios, interviews, etc.).
- CS.06. CCTC Standard:** Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.
- CS.06.01. Performance Indicator:** Examine and explain foundational cycles and systems of AFNR.
- CS.06.02. Performance Indicator:** Analyze and explain the connection and relationships between different AFNR systems on a national and global level.

## Biotechnology Systems Career Pathway Content Standards

The Biotechnology Systems (BS) Career Pathway encompasses the study of using data and scientific techniques to solve problems concerning living organisms with an emphasis on applications to agriculture, food and natural resource systems. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application and management of biotechnology in the context of AFNR.

Within each pathway, the standards are organized as follows:

- ***National Council for Agricultural Education (NCAE) Standard\**** – These are the standards set forth by the National Council for Agricultural Education for Biotechnology Systems. They define what students should know and be able to do after completing instruction in a program of study focused on applying biotechnology to AFNR systems.
  - ***Performance Indicators*** – These statements distill each performance element into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related performance element at the conclusion of a program of study in this area.
- BS.01. NCAE Standard:** Assess factors that have influenced the evolution of biotechnology in agriculture (e.g., historical events, societal trends, ethical and legal implications, etc.).
- BS.01.01. Performance Indicator:** Investigate and explain the relationship between past, current and emerging applications of biotechnology in agriculture (e.g., major innovators, historical developments, potential applications of biotechnology, etc.).

**BS.01.02. Performance Indicator:** Evaluate the scope and implications of regulatory agencies on applications of biotechnology in agriculture and protection of public interests (e.g., health, safety, environmental issues, etc.).

**BS.01.03. Performance Indicator:** Analyze the relationship and implications of bioethics, laws and public perceptions on applications of biotechnology in agriculture (e.g., ethical, legal, social, cultural issues).

**BS.02. NCAE Standard:** Demonstrate proficiency by safely applying appropriate laboratory skills to complete tasks in a biotechnology research and development environment (e.g., standard operating procedures, record keeping, aseptic technique, equipment maintenance, etc.).

**BS.02.01. Performance Indicator:** Read, document, evaluate and secure accurate laboratory records of experimental protocols, observations and results.

**BS.02.02. Performance Indicator:** Implement standard operating procedures for the proper maintenance, use and sterilization of equipment in a laboratory.

**BS.02.03. Performance Indicator:** Apply standard operating procedures for the safe handling of biological and chemical materials in a laboratory.

**BS.02.04. Performance Indicator:** Safely manage and dispose of biological materials, chemicals and wastes according to standard operating procedures.

**BS.02.05. Performance Indicator:** Examine and perform scientific procedures using microbes, DNA, RNA and proteins in a laboratory.

**BS.03. NCAE Standard:** Demonstrate the application of biotechnology to solve problems in Agriculture, Food and Natural Resources (AFNR) systems (e.g., bioengineering, food processing, waste management, horticulture, forestry, livestock, crops, etc.).

**BS.03.01. Performance Indicator:** Apply biotechnology principles, techniques and processes to create transgenic species through genetic engineering.

**BS.03.02. Performance Indicator:** Apply biotechnology principles, techniques and processes to enhance the production of food through the use of microorganisms and enzymes.

**BS.03.03. Performance Indicator:** Apply biotechnology principles, techniques and processes to protect the environment and maximize use of natural resources (e.g., biomass, bioprospecting, industrial biotechnology, etc.).

**BS.03.04. Performance Indicator:** Apply biotechnology principles, techniques and processes to enhance plant and animal care and production (e.g., selective breeding, pharmaceuticals, biodiversity, etc.).

**BS.03.05. Performance Indicator:** Apply biotechnology principles, techniques and processes to produce biofuels (e.g., fermentation, transesterification, methanogenesis, etc.).

**BS.03.06. Performance Indicator:** Apply biotechnology principles, techniques and processes to improve waste management (e.g., genetically modified organisms, bioremediation, etc.).

## Environmental Service Systems Career Pathway Content Standards

The Environmental Service Systems (ESS) Career Pathway encompasses the study of systems, instruments and technology used to monitor and minimize the impact of human activity on environmental systems. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application and management of environmental service systems in AFNR settings.

Within each pathway, the standards are organized as follows:

- **Common Career Technical Core (CCTC) Standards** – These are the standards for Environmental Service Systems (AG-ESS) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- **Performance Indicators** – These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

**ESS.01. CCTC Standard:** Use analytical procedures and instruments to manage environmental service systems.

**ESS.01.01. Performance Indicator:** Analyze and interpret laboratory and field samples in environmental service systems.

**ESS.01.02. Performance Indicator:** Properly utilize scientific instruments in environmental monitoring situations (e.g., laboratory equipment, environmental monitoring instruments, etc.).

**ESS.02. CCTC Standard:** Evaluate the impact of public policies and regulations on environmental service system operations.

**ESS.02.01. Performance Indicator:** Interpret and evaluate the impact of laws, agencies, policies and practices affecting environmental service systems.

**ESS.02.02. Performance Indicator:** Compare and contrast the impact of current trends on regulation of environmental service systems (e.g., climate change, population growth, international trade, etc.).

**ESS.02.03. Performance Indicator:** Examine and summarize the impact of public perceptions and social movements on the regulation of environmental service systems.

**ESS.03. CCTC Standard:** Develop proposed solutions to environmental issues, problems and applications using scientific principles of meteorology, soil science, hydrology, microbiology, chemistry and ecology.

**ESS.03.01. Performance Indicator:** Apply meteorology principles to environmental service systems.

**ESS.03.02. Performance Indicator:** Apply soil science and hydrology principles to environmental service systems.

**ESS.03.03. Performance Indicator:** Apply chemistry principles to environmental service systems.

**ESS.03.04. Performance Indicator:** Apply microbiology principles to environmental service systems.

**ESS.03.05. Performance Indicator:** Apply ecology principles to environmental service systems.

**ESS.04. CCTC Standard:** Demonstrate the operation of environmental service systems (e.g., pollution control, water treatment, wastewater treatment, solid waste management and energy conservation).

**ESS.04.01. Performance Indicator:** Use pollution control measures to maintain a safe facility and environment.

**ESS.04.02. Performance Indicator:** Manage safe disposal of all categories of solid waste in environmental service systems.

**ESS.04.03. Performance Indicator:** Apply techniques to ensure a safe supply of drinking water and adequate treatment of wastewater according to applicable rules and regulations.

**ESS.04.04. Performance Indicator:** Compare and contrast the impact of conventional and alternative energy sources on the environment and operation of environmental service systems.

**ESS.05. CCTC Standard:** Use tools, equipment, machinery and technology common to tasks in environmental service systems.

**ESS.05.01. Performance Indicator:** Use technological and mathematical tools to map land, facilities and infrastructure for environmental service systems.

**ESS.05.02. Performance Indicator:** Perform assessments of environmental conditions using equipment, machinery and technology.

## **Food Products and Processing Systems Career Pathway Content Standards**

The Food Products and Processing Systems (FPP) Career Pathway encompasses the study of food safety and sanitation; nutrition, biology, microbiology, chemistry and human behavior in local and global food systems; food selection and processing for storage, distribution and consumption; and the historical and current development of the food industry. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application and management of food products and processing systems in AFNR settings.

Within each pathway, the standards are organized as follows:

- ***Common Career Technical Core (CCTC) Standards*** – These are the standards for Food Products and Processing Systems (AG-FPP) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- ***Performance Indicators*** – These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to

demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

**FPP.01. CCTC Standard:** Develop and implement procedures to ensure safety, sanitation and quality in food product and processing facilities.

**FPP.01.01. Performance Indicator:** Analyze and manage operational and safety procedures in food products and processing facilities.

**FPP.01.02. Performance Indicator:** Apply food safety and sanitation procedures in the handling and processing of food products to ensure food quality.

**FPP.01.03. Performance Indicator:** Apply food safety procedures when storing food products to ensure food quality.

**FPP.02. CCTC Standard:** Apply principles of nutrition, biology, microbiology, chemistry and human behavior to the development of food products.

**FPP.02.01. Performance Indicator:** Apply principles of nutrition and biology to develop food products that provide a safe, wholesome and nutritious food supply for local and global food systems.

**FPP.02.02. Performance Indicator:** Apply principles of microbiology and chemistry to develop food products to provide a safe, wholesome and nutritious food supply for local and global food systems.

**FPP.02.03. Performance Indicator:** Apply principles of human behavior to develop food products to provide a safe, wholesome and nutritious food supply for local and global food systems.

**FPP.03. CCTC Standard:** Select and process food products for storage, distribution and consumption.

**FPP.03.01. Performance Indicator:** Implement selection, evaluation and inspection techniques to ensure safe and quality food products.

**FPP.03.02. Performance Indicator:** Design and apply techniques of food processing, preservation, packaging and presentation for distribution and consumption of food products.

**FPP.03.03. Performance Indicator:** Create food distribution plans and procedures to ensure safe delivery of food products.

**FPP.04. CCTC Standard:** Explain the scope of the food industry and the historical and current developments of food product and processing.

**FPP.04.01. Performance Indicator:** Examine the scope of the food industry by evaluating local and global policies, trends and customs for food production.

**FPP.04.02. Performance Indicator:** Evaluate the significance and implications of changes and trends in the food products and processing industry in the local and global food systems.

**FPP.04.03. Performance Indicator:** Identify and explain the purpose of industry organizations, groups and regulatory agencies that influence the local and global food systems.

## Natural Resource Systems Career Pathway Content Standards

The Natural Resource Systems (NRS) Career Pathway encompasses the study of the management, protection, enhancement and improvement of soil, water, wildlife, forests and air as natural resources. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application and management of natural resource systems in AFNR settings.

Within each pathway, the standards are organized as follows:

- **Common Career Technical Core (CCTC) Standards** – These are the standards for Natural Resource Systems (AG-NRS) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- **Performance Indicators** – These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

**NRS.01. CCTC Standard:** Plan and conduct natural resource management activities that apply logical, reasoned and scientifically based solutions to natural resource issues and goals.

**NRS.01.01. Performance Indicator:** Apply methods of classification to examine natural resource availability and ecosystem function in a particular region.

**NRS.01.02. Performance Indicator:** Classify different types of natural resources in order to enable protection, conservation, enhancement and management in a particular geographical region.

**NRS.01.03. Performance Indicator:** Apply ecological concepts and principles to atmospheric natural resource systems.

**NRS.01.04. Performance Indicator:** Apply ecological concepts and principles to aquatic natural resource systems.

**NRS.01.05. Performance Indicator:** Apply ecological concepts and principles to terrestrial natural resource systems.

**NRS.01.06. Performance Indicator:** Apply ecological concepts and principles to living organisms in natural resource systems.

**NRS.02. CCTC Standard:** Analyze the interrelationships between natural resources and humans.

**NRS.02.01. Performance Indicator:** Examine and interpret the purpose, enforcement, impact and effectiveness of laws and agencies related to natural resource management, protection, enhancement and improvement (e.g., water regulations, game laws, historic preservation laws, environmental policy, etc.).

**NRS.02.02. Performance Indicator:** Assess the impact of human activities on the availability of natural resources.

**NRS.02.03. Performance Indicator:** Analyze how modern perceptions of natural resource management, protection, enhancement and improvement change and develop over time.

**NRS.02.04. Performance Indicator:** Examine and explain how economics affects the use of natural resources.

**NRS.02.05. Performance Indicator:** Communicate information to the public regarding topics related to the management, protection, enhancement, and improvement of natural resources.

**NRS.03. CCTC Standard:** Develop plans to ensure sustainable production and processing of natural resources.

**NRS.03.01. Performance Indicator:** Sustainably produce, harvest, process and use natural resource products (e.g., forest products, wildlife, minerals, fossil fuels, shale oil, alternative energy, recreation, aquatic species, etc.).

**NRS.03.02. Performance Indicator:** Demonstrate cartographic skills, tools and technologies to aid in developing, implementing and evaluating natural resource management plans.

**NRS.04. CCTC Standard:** Demonstrate responsible management procedures and techniques to protect, maintain, enhance, and improve natural resources.

**NRS.04.01. Performance Indicator:** Demonstrate natural resource protection, maintenance, enhancement and improvement techniques.

**NRS.04.02. Performance Indicator:** Diagnose plant and wildlife diseases and follow protocols to prevent their spread.

**NRS.04.03. Performance Indicator:** Prevent or manage introduction of ecologically harmful species in a particular region.

**NRS.04.04. Performance Indicator:** Manage fires in natural resource systems.

## Plant Science Systems Career Pathway Content Standards

The Plant Systems (PS) Career Pathway encompasses the study of plant life cycles, classifications, functions, structures, reproduction, media and nutrients, as well as growth and cultural practices through the study of crops, turf grass, trees, shrubs and/or ornamental plants. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application and management of plant systems in AFNR settings.

Within each pathway, the standards are organized as follows:

- **Common Career Technical Core (CCTC) Standards** – These are the standards for Plant Systems (AG-PS) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- **Performance Indicators** – These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

- PS.01. CCTC Standard:** Develop and implement a crop management plan for a given production goal that accounts for environmental factors.
- PS.01.01. Performance Indicator:** Determine the influence of environmental factors on plant growth.
  - PS.01.02. Performance Indicator:** Prepare and manage growing media for use in plant systems.
  - PS.01.03. Performance Indicator:** Develop and implement a fertilization plan for specific plants or crops.
- PS.02. CCTC Standard:** Apply principles of classification, plant anatomy, and plant physiology to plant production and management.
- PS.02.01. Performance Indicator:** Classify plants according to taxonomic systems.
  - PS.02.02. Performance Indicator:** Apply knowledge of plant anatomy and the functions of plant structures to activities associated with plant systems.
  - PS.02.03. Performance Indicator:** Apply knowledge of plant physiology and energy conversion to plant systems.
- PS.03. CCTC Standard:** Propagate, culture and harvest plants and plant products based on current industry standards.
- PS.03.01. Performance Indicator:** Demonstrate plant propagation techniques in plant system activities.
  - PS.03.02. Performance Indicator:** Develop and implement a management plan for plant production.
  - PS.03.03. Performance Indicator:** Develop and implement a plan for integrated pest management for plant production.
  - PS.03.04. Performance Indicator:** Apply principles and practices of sustainable agriculture to plant production.
  - PS.03.05. Performance Indicator:** Harvest, handle and store crops according to current industry standards.
- PS.04. CCTC Standard:** Apply principles of design in plant systems to enhance an environment (e.g. floral, forest landscape, and farm).
- PS.04.01. Performance Indicator:** Evaluating, identifying and preparing plants to enhance an environment.
  - PS.04.02. Performance Indicator:** Create designs using plants.



## Power, Structural and Technical Systems Career Pathway Content Standards

The Power, Structural and Technical Systems (PST) Career Pathway encompasses the study of agricultural equipment, power systems, alternative fuel sources and precision technology, as well as woodworking, metalworking, welding and project planning for agricultural structures. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the development, application and management of power, structural and technical systems in AFNR settings.

Within each pathway, the standards are organized as follows:

- **Common Career Technical Core (CCTC) Standards** – These are the standards for Power, Structural and Technical Systems (AG-PST) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- **Performance Indicators** – These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

**PST.01. CCTC Standard:** Apply physical science principles and engineering applications to solve problems and improve performance in AFNR power, structural and technical systems.

**PST.01.01. Performance Indicator:** Apply physical science and engineering principles to assess and select energy sources for AFNR power, structural and technical systems.

**PST.01.02. Performance Indicator:** Apply physical science and engineering principles to design, implement and improve safe and efficient mechanical systems in AFNR situations.

**PST.01.03. Performance Indicator:** Apply physical science principles to metal fabrication using a variety of welding and cutting processes (e.g., SMAW, GMAW, GTAW, fuel-oxygen and plasma arc torch, etc.).

**PST.02. CCTC Standard:** Operate and maintain AFNR mechanical equipment and power systems.

**PST.02.01. Performance Indicator:** Perform preventative maintenance and scheduled service to maintain equipment, machinery and power units used in AFNR settings.

**PST.02.02. Performance Indicator:** Operate machinery and equipment while observing all safety precautions in AFNR settings.

**PST.03. CCTC Standard:** Service and repair AFNR mechanical equipment and power systems.

**PST.03.01. Performance Indicator:** Troubleshoot, service and repair components of internal combustion engines using manufacturers' guidelines.

**PST.03.02. Performance Indicator:** Service electrical systems and components of mechanical equipment and power systems using a variety of troubleshooting and/or diagnostic methods.

**PST.03.03. Performance Indicator:** Utilize manufacturers' guidelines to diagnose and troubleshoot malfunctions in machinery, equipment and power source systems (e.g., hydraulic, pneumatic, transmission, steering, suspension, etc.).

**PST.04. CCTC Standard:** Plan, build and maintain AFNR structures.

**PST.04.01. Performance Indicator:** Create sketches and plans for AFNR structures.

**PST.04.02. Performance Indicator:** Determine structural requirements, specifications and estimate costs for AFNR structures

**PST.04.03. Performance Indicator:** Follow architectural and mechanical plans to construct, maintain and/or repair AFNR structures (e.g., material selection, site preparation and/or layout, plumbing, concrete/masonry, etc.).

**PST.04.04. Performance Indicator:** Apply electrical wiring principles in AFNR structures.

**PST.05. CCTC Standard:** Use control, monitoring, geospatial and other technologies in AFNR power, structural and technical systems.

**PST.05.01. Performance Indicator:** Apply computer and other technologies (e.g., robotics, CNC, UAS, etc.) to solve problems and increase the efficiency of AFNR systems.

**PST.05.02. Performance Indicator:** Prepare and/or use electrical drawings to design, install and troubleshoot electronic control systems in AFNR settings.

**PST.05.03. Performance Indicator:** Apply geospatial technologies to solve problems and increase the efficiency of AFNR systems.





## ~~2017 Agricultural Leadership and Personal Development~~

~~Program CIP: 01.0899 Agricultural Public Services, Other~~

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~~The Research and Curriculum Unit (RCU), located in Starkville, MS, as part of Mississippi State University, was established to foster educational enhancements and innovations. In keeping with the land grant mission of Mississippi State University, the RCU is dedicated to improving the quality of life for Mississippians. The RCU enhances intellectual and professional development of Mississippi students and educators while applying knowledge and educational research to the lives of the people of the state. The RCU works within the contexts of curriculum development and revision, research, assessment, professional development, and industrial training.~~

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# Standards

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Standards are superscripted in each unit and are referenced in the appendices. Standards in the Agricultural Leadership and Personal Development Curriculum Framework and Supporting Materials are based on the following:

## **National Agriculture, Food and Natural Resources (AFNR) Career Cluster Content Standards**

The National Council for Agricultural Education (The Council) shapes and strengthens school-based agricultural education at all levels. The Council and the National AFNR Career Cluster Content Standards Committee have developed the career pathway content standards to outline technical knowledge and skills required for future success within Agriculture and Environmental Science and Technology. The content standards are intended to provide a forward-thinking guide for what students should know and be able to do after completing this program of study. The standards referenced in this curriculum are reprinted with permission from the National Council for Agricultural Education, 1410 King Street, Suite 400, Alexandria, VA 22314. (800) 772-0939. Copyright © 2015. <https://www.ffa.org/thecouncil/afnr>.

## **College and Career-Ready Standards**

The College and Career-Ready Standards emphasize critical thinking, teamwork and problem-solving skills. Students will learn the skills and abilities demanded by the workforce of today and the future. Mississippi adopted Mississippi College and Career-Ready Standards (MCCRS) because they provide a consistent, clear understanding of what students are expected to learn so that teachers and parents know what they need to do to help them. Reprinted from <http://www.mde.k12.ms.us/MCCRS>

## **International Society for Technology in Education Standards (ISTE)**

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## **21st Century Skills and Information and Communication Technologies Literacy Standards**

In defining 21<sup>st</sup>-century learning, the Partnership for 21st Century Skills has embraced five content and skill areas that represent the essential knowledge for the 21st century: global awareness; civic engagement; financial, economic, and business literacy; learning skills that encompass problem-solving, critical-thinking, and self-directional skills; and information and communication technology (ICT) literacy.



## Preface

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Secondary career and technical education programs in Mississippi face many challenges resulting from sweeping educational reforms at the national and state levels. Schools and teachers are increasingly being held accountable for providing true learning activities to every student in the classroom. This accountability is measured through increased requirements for mastery and attainment of competency as documented through both formative and summative assessments.

The courses in this document reflect the statutory requirements as found in Section 37-3-49, *Mississippi Code of 1972*, as amended (Section 37-3-46). In addition, this curriculum reflects guidelines imposed by federal and state mandates (Laws, 1988, Ch. 487, §14; Laws, 1991, Ch. 423, §1; Laws, 1992, Ch. 519, §4 eff. from and after July 1, 1992; Carl D. Perkins Vocational Education Act IV, 2007; and Every Student Succeeds Act 2015.).

# Mississippi Teacher Professional Resources

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The following are resources for Mississippi teachers:

Curriculum, Assessment, Professional Learning, and other program resources can be found at The Research and Curriculum Unit's website: <http://www.rcu.msstate.edu>

Should you need additional instructions regarding these resources, please call 662.325.2510.

The National FFA Organization website has educator resources, student organization guidelines and program information, professional organization information and experiential learning guidelines. All Agricultural Education teachers have been given free access to these resources at [www.ffa.org](http://www.ffa.org).

# Executive Summary

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## **Pathway Description**

Agricultural Leadership and Personal Development is a course to introduce students to the skills, attitudes, and habits that will enable them to be good leaders in both the agriculture industry and life. The program includes instruction in workplace skills, time management, and money management related to agricultural leadership and personal development. Students in the course will participate in active learning exercises, including integral activities of the FFA organization and supervised experiences. Students who successfully complete the competencies in this course will possess fundamental knowledge and skills that can be used to secure entry-level employment or as a foundation for continuing their education. Industry standards are adapted from the publication *Career Cluster Resources for Agriculture, Food, and Natural Resources*, developed by the National Association of State Directors of Career and Technical Education.

## **Industry Certification**

No national industry-recognized certifications are known to exist at this time in the field of agriscience. Competencies and suggested performance indicators in the Agricultural Leadership and Personal Development course have been correlated, however, to the National Agriculture, Food, and Natural Resources (AFNR) Career Cluster Content Standards that have been reviewed and endorsed at the national level by the National Council on Agricultural Education.

## **Student Prerequisites**

In order for students to experience success in the Agricultural Leadership and Personal Development course, the following student prerequisite is recommended:

1. Instructor approval

## **Applied Academic Credit**

The latest academic credit information can be found at

<http://www.mde.k12.ms.us/ACCRED/AAS>.

Once there, click the “Mississippi Public School Accountability Standards Year” tab.

Review the appendices for graduation options and superscript information regarding specific programs receiving academic credit.

Check this site often as it is updated frequently.

## **Teacher Licensure**

The latest teacher licensure information can be found at <http://www.mde.k12.ms.us/educator-licensure>.

## **Professional Learning**

If you have specific questions about the content of any of training sessions provided, please contact the Research and Curriculum Unit at 662.325.2510.

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# Course Outlines

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## One Carnegie Unit Course

This curriculum consists of one one-credit course, which should be completed in one year.

### **Agricultural Leadership and Personal Development—Course Code: 991701**

**Course Description:** Agricultural Leadership and Personal Development is a course to introduce students to the skills, attitudes, and habits that will enable them to be good leaders in both agriculture and life. The program includes instruction in workplace skills, time management, and money management related to agricultural leadership and personal development. Students in the course will participate in active learning exercises, including integral activities of the FFA organization and supervised experiences.

### **Secondary Agricultural Leadership and Personal Development—Course Code: 991701**

Unit	Unit Name	Hours
1	Introduction to Leadership	12
2	Personal Development	12
3	Experiential Learning	12
4	Communication Skills	12
5	Public Speaking and Parliamentary Procedure	12
6	Workplace Essentials	12
7	Interpersonal Relationships and Conflict Resolution	12
8	Time Management	12
9	Personal Finance and Money Management	12
Total		108

# Research Synopsis

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## **What is Leadership?**

According to Forbes (2016), leadership is a process of social influence that maximizes the efforts of others towards the achievement of a goal.

With that definition as our foundation, agricultural leadership and personal development encompasses the pursuit of skills, techniques, and ethical behaviors that bring achievement of goals to any agricultural industry or endeavor. Agriculture and modern society as a whole require private and public entities to have strong leadership. Success in the modern economy rarely occurs without strong leaders and leadership teams. Careers in agriculture are no different. Whether a person is an environmental engineer, conservation scientist, educator, or first-line supervisor, the ability to lead and achieve a goal or goals is of supreme importance.

## **Careers in Agricultural Leadership**

Careers in agricultural leadership range from conservation scientists to nonscientific positions in sales, marketing, and first-line supervisors. Positions require as little as an associate's degree or postsecondary award to an advanced or professional degree. Job prospects in agricultural leadership and personal development far exceed growth in many other industries (U.S. Bureau of Labor Statistics, 2016).

### *Environmental Engineers*

Environmental engineers work to develop solutions to environmental issues. They combine engineering and agricultural principles to address recycling, waste disposal, and other environmental or public health issues (U.S. Bureau of Labor Statistics, 2016).

### *Conservation Scientists*

Conservation scientists work in management of forests, parks, rangelands, and other natural resources. Job settings range from private lands to government-run parks and nature preserves (U.S. Bureau of Labor Statistics, 2016).

### *First-Line Supervisors*

First-line supervisors, ranchers, and other agricultural managers operate farms and other entities that produce crops, livestock, and dairy products (U.S. Bureau of Labor Statistics, 2016).

## **Needs of the Future Workforce**

Data for this synopsis were compiled from the Mississippi Department of Employment Security (2015). Employment opportunities for related the occupations are listed below:

Table 1.1: Current and Projected Occupation Report

Occupation	Employment		Projected Growth 2010-2020		Average Wage 2015	
	Current (2010)	Projected (2020)	Number	Percent	Hourly	Annual
Agricultural and Food Science Technicians	190	200	10	5.3	\$15.92	\$33,120
Agricultural Equipment Operators	280	300	20	7.1	\$17.32	\$36,020
Conservation Scientists	1,270	1,330	60	4.7	\$26.05	\$54,190
Environmental Engineers	890	950	60	6.7	\$34.70	\$72,170
Environmental Engineering Technicians	100	110	10	10.0	\$20.44	\$42,510
Environmental Scientists and Specialists, Including Health	920	990	70	7.6	\$27.02	\$56,190
Environmental Science and Protection Technicians, Including Health	30	40	10	33.3	\$19.73	\$41,030
Soil and Plant Scientists	70	80	10	14.3	\$39.74	\$82,660
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	690	690	0	0.0	\$9.39	\$19,540
Farmworkers, Farm and Ranch Animals	440	460	20	7.1	\$10.17	\$21,150
First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers	300	310	10	3.3	\$22.61	\$47,030
Foresters	650	670	20	3.1	\$52.660	\$17.73
Forest and Conservation Workers	70	80	10	14.3	\$20.26	\$42,150
Veterinarians	430	520	90	20.9	\$39.15	\$81,440
Veterinary Assistants and Laboratory Animal Caretakers	580	580	0	0.0	\$10.30	\$21,430
Veterinary Technologists and Technicians	610	800	190	31.1	\$15.13	\$31,470

Source: Mississippi Department of Employment Security, [www.mdes.ms.gov](http://www.mdes.ms.gov).

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### **Perkins IV Requirements**

The agricultural leadership and personal development curriculum meets Perkins IV requirements of high-skill, high-wage, and/or high-demand occupations by introducing students to and preparing students for occupations. It also offers students a program of study, including secondary, postsecondary, and IHL courses, that will prepare them for occupations in these fields. Additionally, the agricultural leadership and personal development curriculum is integrated with academic college and career-ready standards. Lastly, the agricultural leadership and personal development curriculum focuses on ongoing and meaningful professional development for teachers and relationships with industry.

### **Curriculum Content**

#### **Summary of Standards**

The standards included in the agricultural leadership and personal development curriculum are the Mississippi College and Career Ready Standards for Mathematics and Science, 21st Century Skills, and the National Educational Technology Standards (NETS) for Students. Combining these standards to create this document will result in highly skilled, well-rounded students who are prepared to enter a secondary academic or CTE program of study. They will also be prepared to compete nationally on academics, as the College and Career Ready Standards are designed to prepare students for success in community colleges, institutions of higher learning, and careers.

#### **Transition to Postsecondary Education**

The latest articulation information for secondary to postsecondary can be found at the Mississippi Community College Board website: <http://www.mccb.edu/>.

#### **Best Practices**

The premise of the success of all school-based, agricultural education programs is the three-circle model, which depicts the three major components of the program interlocked and working together as one. The three components are classroom and laboratory instruction; experiential learning through supervised agricultural experience (SAE) programs for individual students; and participation in the CTE student organization for agriculture education, the National FFA.

## **Classroom and Laboratory Instruction**

The classroom and laboratory component of the school-based, agricultural education, three-circle model is the foundation of the success of the other two components. Through contextual learning, students in agricultural education can learn the science, business, and technology of modern agriculture through innovative instructional technologies, differentiated instruction, and cooperative learning.

***Innovative Instructional Technologies***—Recognizing that today’s students are digital learners, the classroom should be equipped with tools that will teach them in the way they need to learn. The teacher’s goal should be to include teaching strategies that incorporate current technology. It is suggested that each classroom house a set of smart tablets and one teacher laptop. To make use of the latest online communication tools, such as wikis, blogs, and podcasts, the classroom teacher is encouraged to use a learning management system that introduces students to teaching and learning strategies in an online environment and places the responsibility of learning on the student.

***Differentiated Instruction***—All students are unique and possess an individualized learning style. Differentiated instruction is an approach to teaching that addresses the differences in learning styles by providing alternative teaching and assessment methods that reach across the spectrum of student needs in the classroom. By differentiating instruction, teachers can more effectively reach students and address their strengths and weaknesses, therefore increasing student success. The implementation of various forms of technology; use of alternative assessments, such as rubrics and problem-based assessment; and utilizing hands-on and work-based learning opportunities in the program of instruction truly enhance the quality of the curriculum presentation.

***Cooperative Learning***—Cooperative learning can help students understand topics when independent learning cannot. Therefore, you will see several opportunities in the Agriculture Leadership and Personal Development curriculum for group work. To function in today’s workforce, students need to be able to work collaboratively with others and solve problems without excessive conflict. The Agriculture Leadership and Personal Development curriculum provides opportunities for students to work together and help each other to complete complex tasks.

## **Experiential Learning (SAE)**

The experiential learning (SAE) component has long been an integral part of the school-based, agricultural education, three-component model. Each student is encouraged to explore their career interests and plan an experiential, service, and/or work-based learning program to guide them to their career goals. This SAE program guides the student as they maintain a record-keeping system of the time and money invested, as well as the skills gained from their experiences. The experiential learning projects can be used in a variety of situations to reinforce and complement classroom theory and content. The experiential learning project consists of entrepreneurship, placement, research/experimentation, and exploratory discovery and spans the duration of program enrollment.



### **CTE Student Organizations**

As the third part of the school-based, agricultural education program, the FFA component is the showcase, or focal point, of leadership, growth, and development for students. The FFA is the student organization for the Agriculture Leadership and Personal Development curriculum. The FFA offers many opportunities for student success, such as leadership development, career-development events, degrees of attainment, awards and scholarships, and community service. The FFA provides students with growth opportunities and competitive events. It also opens the doors to the world of agriculture and scholarship opportunities.

### **Conclusion**

The agricultural leadership and personal development curriculum is one of Mississippi's most contemporary and advanced agriculture curricula. Students that complete this program are well equipped for a variety of endeavors. Instructors are urged to encourage agricultural leadership and personal development students to pursue educational opportunities at community colleges and universities in Mississippi.

## Professional Organizations

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Agricultural Education Division of the Association for Career and Technical Education. May be found online at <http://www.acteonline.org/>

American Association for Agricultural Education. May be found online at <http://aaaonline.org/>

Mississippi ACTE. May be found online at <http://www.mississippiacte.com/>

Mississippi Association of Vocational Agriculture Teachers (MAVAT). May be found online at [www.mississippiffa.org](http://www.mississippiffa.org)

National Association of Agricultural Educators. May be found online at <http://www.naae.org/>

National Association of Supervisors of Agricultural Education. May be found online at <https://www.ffa.org/thecouncil/nasae/>

National FFA Alumni Association. May be found online at <https://www.ffa.org/getinvolved/alumni/>

National FFA Foundation, Inc. May be found online at <https://www.ffa.org/support/foundation/>

National Farm and Ranch Business Management Education Association. May be found online at <http://www.nfrbmea.org/>

National Postsecondary Agricultural Student Organization. May be found online at <http://www.nationalpas.org/>

National Young Farmer Educational Association. May be found online at <http://www.nyfea.org>

# Using This Document

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## **Suggested Time on Task**

This section indicates an estimated number of clock hours of instruction that should be required to teach the competencies and objectives of the unit. A minimum of 140 hours of instruction is required for each Carnegie unit credit. The curriculum framework should account for approximately 75–80% of the time in the course.

## **Competencies and Suggested Objectives**

A competency represents a general concept or performance that students are expected to master as a requirement for satisfactorily completing a unit. Students will be expected to receive instruction on all competencies. The suggested objectives represent the enabling and supporting knowledge and performances that will indicate mastery of the competency at the course level.

## **Integrated Academic Topics, 21st Century Skills and Information and Communication Technology Literacy Standards, ACT College Readiness Standards, and Technology Standards for Students**

This section identifies related academic topics as required in the Subject Area Testing Program (SATP) in Algebra I, Biology I, English II, and U.S. History from 1877, which are integrated into the content of the unit. Research-based teaching strategies also incorporate ACT College Readiness standards. This section also identifies the 21st Century Skills and Information and Communication Technology Literacy skills. In addition, national technology standards for students associated with the competencies and suggested objectives for the unit are also identified.

# Unit 1: Introduction to Leadership

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<b>Competencies and Suggested Objectives</b>
<p>1. Discuss concepts related to leadership.<sup>DOK1, CS</sup></p> <ul style="list-style-type: none"><li>a. Define leadership.</li><li>b. Describe traits of a good leader, such as integrity, knowledge, courage, tactfulness, enthusiasm, unselfishness, and loyalty.</li><li>c. Practice acceptable manners in appropriate places, including introductions, greetings, table manners, social media manners, and telephone manners.</li></ul>
<p>2. Analyze various definitions of leadership.<sup>DOK2, CS</sup></p> <ul style="list-style-type: none"><li>a. Discuss common leadership themes.</li><li>b. Identify qualities of a good leader.</li><li>c. Evaluate myths about leaders and leadership.</li></ul>
<p>3. Examine the major leadership styles.<sup>DOK1, CS</sup></p> <ul style="list-style-type: none"><li>● Autocratic</li><li>● Democratic</li><li>● Laissez-faire</li></ul>
<p>4. Discuss the skills a person must possess to be a good leader.<sup>DOK2, CS</sup></p> <ul style="list-style-type: none"><li>● Basic skills</li><li>● Thinking skills</li><li>● Personal qualities</li><li>● Workplace skills</li><li>● Interpersonal skills</li><li>● Information and Technology skills</li></ul>
<p>5. Explain opportunities for leadership development through the FFA.<sup>DOK3, CS</sup></p> <ul style="list-style-type: none"><li>a. Describe career development events (CDEs) and award programs, including proficiency awards and state and American degrees.</li><li>b. Participate in leadership activities and/or leadership conferences and conventions.</li><li>c. Design and implement a leadership activity.</li><li>d. Determine opportunities for participation in personal and community development programs.</li><li>e. Design and implement a community service project.</li></ul>

## Unit 2: Personal Development

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<b>Competencies and Suggested Objectives</b>
<p>1. <del>Define common personal-development terms.</del><sup>DOK1, CRP, CS</sup></p> <ul style="list-style-type: none"><li><del>• Self-esteem</del></li><li><del>• Self-concept</del></li><li><del>• Personality</del></li><li><del>• Personal appearance/ hygiene</del></li><li><del>• Character</del></li><li><del>• Ethics</del></li><li><del>• Work ethic</del></li></ul>
<p>2. <del>Examine personality types using various personality and character evaluations.</del><sup>DOK2, CRP, CS</sup></p> <ul style="list-style-type: none"><li><del>a. Discuss how personality types affect personal development.</del></li><li><del>b. Examine how personality types affect professional development.</del></li><li><del>c. Discuss how personality types affect interpersonal relationships.</del></li><li><del>d. Explore the impact personality types have on leadership ability.</del></li></ul>
<p>3. <del>Discuss and identify learning styles.</del><sup>DOK2, CRP, CS</sup></p> <ul style="list-style-type: none"><li><del>a. Describe the three types of learning styles:</del><ul style="list-style-type: none"><li><del>• Visual learners</del></li><li><del>• Auditory learners</del></li><li><del>• Kinesthetic or tactile learners</del></li></ul></li><li><del>b. Explore the correlation between learning styles and leadership skills.</del></li></ul>
<p>4. <del>Discuss the importance of personal development on career opportunities and advancement.</del><sup>DOK2, CRP, CS</sup></p> <ul style="list-style-type: none"><li><del>a. Compare negative or no personal development with positive personal development in career opportunities and advancement.</del></li><li><del>b. Examine pay and advancement differences based on personal-development criteria.</del></li></ul>

## Unit 3: Experiential Learning

<b>Competencies and Suggested Scenarios</b>	
1. Describe the purposes and requirements of the SAE program.	<sup>DOK3, ABS, CRP, CS</sup>
a. Establish objectives for the SAE program.	
b. Determine the availability of time and money to invest in an SAE program.	
c. Select a system of record keeping.	
d. Determine benefits of participation in an SAE program.	
e. Determine types of SAE programs.	
2. Develop a short range personal plan for the SAE program.	<sup>DOK2, ABS, CRP, CS</sup>
a. Set short range goals pertaining to the development of the individual SAE program.	
3. Develop a long range personal plan for the SAE program.	<sup>DOK2, AB, CRP, CS</sup>
a. Set long range goals for the personal SAE program.	
4. Complete a training agreement for an SAE project.	<sup>DOK2, ABS, CRP, CS</sup>
a. Establish requirements of student, parents, supervisor, and/or employer in regards to the SAE project.	
5. Describe agricultural record keeping for an SAE project.	<sup>DOK3, ABS, CRP, CS</sup>
a. Determine types of records to keep.	
b. Describe how to maintain various systems of record keeping.	
6. Maintain agricultural records for an SAE project.	<sup>DOK2, ABS, CRP, CS</sup>
a. Prepare income and expense records.	
b. Prepare inventory records.	
c. Compute enterprise summaries.	
d. Maintain placement records.	
e. Summarize the SAE program.	
f. Maintain leadership work activity records.	
g. Compute a net worth statement.	
7. Discuss how an SAE program can develop individual leadership and personal skills.	<sup>DOK2, ABS, CRP, CS</sup>
a. Explain how work ethic, communication, conflict management, and time management skills can impact the SAE experience.	
b. Explore outcomes of SAE experiences based on poor and/or proper leadership skills.	

## Unit 4: Communication Skills

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<b>Competencies and Suggested Objectives</b>
<p>1. Define communication. <sup>DOK1, CRP, CS</sup></p> <p>a. Discuss the different types of communication:</p> <ul style="list-style-type: none"><li>● Nonverbal</li><li>● Verbal</li><li>● Mediated (technology)<ul style="list-style-type: none"><li>* Synchronous</li><li>* Asynchronous</li></ul></li></ul> <p>b. Explore the various communication types used in businesses.</p>
<p>2. Examine the communication cycle. <sup>DOK2, CRP, CS</sup></p> <p>a. Identify the steps of communication: send (encodes), receive (decodes), message, feedback, channel, and noise.</p> <p>b. Discuss the elements of effective verbal and nonverbal communication.</p> <p>c. Discuss the characteristics of poor and effective listening skills.</p> <p>d. Explore common communication barriers.</p>
<p>3. Apply the fundamentals of communication. <sup>DOK3, CRP, CS</sup></p> <p>a. Demonstrate effective verbal and nonverbal communication principles.</p> <p>b. Demonstrate appropriate netiquette for electronic communication.</p> <p>c. Demonstrate written communication techniques using word processing software, slideshow presentation software, and other technology applications.</p>
<p>4. Explain the relationship between communication and leadership. <sup>DOK3, CRP, CS</sup></p> <p>a. Explore how poor communication limits leadership potential and how good communication bolsters leadership potential.</p> <p>b. Explore how poor listening skills hamper leadership potential and how good listening skills increase leadership potential.</p>

# Unit 5: Public Speaking and Parliamentary Procedure

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<b>Competencies and Suggested Objectives</b>
<del>1. Discuss techniques to overcome fear of public speaking. <sup>DOK1, CRP, CS</sup></del>
<del>2. Discuss and apply the steps used to prepare a speech: <sup>DOK2, CRP, CS</sup></del> <ul style="list-style-type: none"><li><del>a. Topic selection</del></li><li><del>b. Brainstorming</del></li><li><del>c. Research</del></li><li><del>d. Outlining</del></li><li><del>e. Rough drafts</del></li><li><del>f. Final draft</del></li></ul>
<del>3. Exhibit the fundamentals of speech delivery. <sup>DOK3, CRP, CS</sup></del>
<del>4. Define parliamentary procedure and commonly used terminology. <sup>DOK1, CRP, CS</sup></del>
<del>5. Demonstrate basic parliamentary procedures in a business meeting. <sup>DOK3, CRP, CS</sup></del> <ul style="list-style-type: none"><li><del>a. Define and discuss the order of business for a meeting.</del></li><li><del>b. Demonstrate the proper method for recording the minutes of a meeting.</del></li><li><del>c. Demonstrate how to properly present a motion for discussion.</del></li><li><del>d. Demonstrate how to properly handle an item of business in a meeting, including voting, discussion, and taking action on a motion.</del></li><li><del>e. Demonstrate the use of the various types of motions, including incidental, privileged, and subsidiary motions.</del></li></ul>



## Unit 6: Workplace Essentials

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<b>Competencies and Suggested Objectives</b>
<p>1. <del>Research career opportunities and employment skills.</del> <sup>DOK3, CRP, CS</sup></p> <ul style="list-style-type: none"><li>a. <del>Create an application letter, a résumé, a follow-up letter, and a letter of resignation.</del></li><li>b. <del>Demonstrate appropriate interview skills for face-to-face and phone interviews.</del></li></ul>
<p>2. <del>Demonstrate appropriate workplace ethics.</del> <sup>DOK3, CS</sup></p> <ul style="list-style-type: none"><li>a. <del>Critique the behavior of professionals to determine whether their actions and decisions are ethical.</del></li><li>b. <del>Discuss privacy issues and safeguarding information in leadership roles and professional settings.</del></li><li>c. <del>Explain sexual harassment and a hostile work environment.</del></li><li>d. <del>Discuss workplace behavior and the legal ramifications of unethical behavior.</del></li><li>e. <del>Explain the employee's role in ethical use of business property.</del></li><li>f. <del>Discuss the role of ethics in business operations.</del></li></ul>
<p>3. <del>Demonstrate appropriate professional etiquette skills.</del> <sup>DOK2, CRP, CS</sup></p> <ul style="list-style-type: none"><li>a. <del>Demonstrate appropriate greetings and introductions.</del></li><li>b. <del>Demonstrate appropriate table etiquette in a business setting.</del></li><li>c. <del>Demonstrate appropriate professional dress for interviews and workplace.</del></li><li>d. <del>Discuss personal hygiene and professional behavior.</del></li><li>e. <del>Discuss appropriate online professionalism involving social media applications.</del></li></ul>

# Unit 7: Interpersonal Relationships and Conflict Management

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## **Competencies and Suggested Objectives**

1. Define interpersonal relationships and associated terminology. <sup>DOK2, CRP, CS</sup>
- a. Discuss interpersonal relationships and customer service, business relationships, and employee-employer relationships.
  - b. Discuss diversity issues that can impact interpersonal relationships.
  - c. Examine discrimination and other negative actions or attitudes that can impact interpersonal relationships.
  - d. Demonstrate techniques to combat bullying.

2. Demonstrate interpersonal skills that contribute to positive work relationships. <sup>DOK2, CRP, CS</sup>
- a. Identify characteristics and benefits of positive work relationships.
  - b. Discuss the concept of teamwork in the workplace.
  - c. Demonstrate teamwork skills in solving problems.
  - d. Develop skills needed to maintain effective working relationships.

3. Demonstrate the use of proper procedures for solving conflicts with coworkers, supervisors, and/or customers. <sup>DOK2, CRP, CS</sup>
- a. Demonstrate problem-solving and negotiation skills.
  - b. Explore conflict-management skills.

## Unit 8: Time Management

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<b>Competencies and Suggested Objectives</b>
<del>1. Explore key aspects of effective time management: <sup>DOK1, CRP, CS</sup> a. Time b. Urgency c. Priority d. Daily plan e. Weekly plan f. Goals (both short and long term) g. Schedule h. Procrastination i. Organization j. Self-discipline</del>
<del>2. Identify factors that prevent the proper use of time. <sup>DOK2, CRP, CS</sup></del>
<del>3. Discuss the impact of poor and proper time management. <sup>DOK2, CRP, CS</sup></del>
<del>4. Develop a time management plan utilizing short term and long term goals. <sup>DOK3, CRP, CS</sup></del>

# Unit 9: Personal Finance and Money Management

<b>Competencies and Suggested Objectives</b>	
1. Define common finance and money management terms: <sup>DOK1, ABS, CRP, CS</sup>	<ul style="list-style-type: none"><li>● Earning income</li><li>● Buying goods and services</li><li>● Saving</li><li>● Credit</li><li>● Investing</li><li>● Insuring</li></ul>
2. Explore income-earning opportunities in professional settings: <sup>DOK2, ABS, CRP, CS</sup>	<ul style="list-style-type: none"><li>a. Examine how market values affect wages and salaries.</li><li>b. Discuss ways to increase earning potential or job opportunities.</li><li>c. Discuss the difference in earning potential for a high school dropout, a high school graduate, and a college graduate.</li><li>d. Examine student loans, grants, and other financing opportunities for postsecondary educational pursuits.</li></ul>
3. Explore take-home pay and common payroll deductions: <sup>DOK2, ABS, CRP, CS</sup>	<ul style="list-style-type: none"><li>a. Explore state and federal tax forms.</li><li>b. Examine state and federal withholdings.</li><li>c. Discuss the factors that affect annual tax returns.</li><li>d. Examine retirement options, including 401(k)s and individual retirement accounts (IRAs).</li></ul>
4. Examine savings and how they impact personal finance and money management: <sup>DOK3, ABS, CRP, CS</sup>	<ul style="list-style-type: none"><li>a. Explore areas of finance that affect savings:<ul style="list-style-type: none"><li>● Time</li><li>● Interest rates</li><li>● Inflation</li></ul></li><li>b. Discuss available savings options.</li><li>c. Utilize savings options and factors to determine the best use of personal finances to maximize savings.</li></ul>
5. Examine personal financial techniques: <sup>DOK2, ABS, CRP, CS</sup>	<ul style="list-style-type: none"><li>a. Explore the different personal banking options available.</li><li>b. Discuss the proper use of a checking and savings account.</li><li>c. Determine how to properly balance a checking account.</li><li>d. Discuss the proper use of debit and credit cards.</li><li>e. Examine the impact of financial decisions on a credit score.</li><li>f. Explore monthly budgeting techniques.</li></ul>

- ~~6. Explore proper financial decision-making. <sup>DOK3, ABS, CRP, CS</sup>~~
- ~~a. Identify important steps for making an informed spending decision:
 
    - ~~● Gather detailed information about the good or service desired.~~
    - ~~● Debate needs versus wants.~~
    - ~~● Plan and budget to make the purchase possible (include all possible contingencies).~~
    - ~~● Discuss short-term and long-term impacts of various financial choices.~~~~
  - ~~b. Utilize this data to determine the best selection when buying a good or service.~~
- ~~7. Identify the role credit plays in personal finance and money management. <sup>DOK2, ABS, CRP, CS</sup>~~
- ~~a. Define credit and other important terms related to financing.~~
  - ~~b. Explore the various credit options available.~~
  - ~~c. Examine credit scores and how they are determined.~~
  - ~~d. Examine identity theft and methods to protect identity.~~
  - ~~e. Discuss interest rates, late fees and other fees associated with credit cards, loans, cash advances, payday loans, and other credit types.~~
  - ~~f. Explore how to calculate interest, principal, and loan payments using mathematic formulas or skills.~~
  - ~~g. Discuss bankruptcy and sound credit practices.~~
  - ~~h. Discuss safe and legal credit help options available to consumers.~~
- ~~8. Discuss the different financial investments available to increase wealth and income. <sup>DOK1, ABS, CRP, CS</sup>~~
- ~~a. Identify high and low risk investments.~~
  - ~~b. Examine diversification in investing.~~
- ~~9. Explore the role insurance plays in personal finance and money management. <sup>DOK1, ABS, CRP, CS</sup>~~
- ~~a. Discuss the various types of insurance available.~~
  - ~~b. Discuss risk, reduced risk, and deferred risk.~~
  - ~~c. Discuss factors that affect insurance rates and coverage.~~

# Student Competency Profile

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Student's Name: \_\_\_\_\_

This record is intended to serve as a method of noting student achievement of the competencies in each unit. It can be duplicated for each student, and it can serve as a cumulative record of competencies achieved in the course.

In the blank before each competency, place the date on which the student mastered the competency.

<b>Unit 1: Introduction to Leadership</b>		
	1.	Discuss concepts related to leadership.
	2.	Analyze various definitions of leadership.
	3.	Examine the major leadership styles:
	4.	Discuss the skills a person must possess to be a good leader:
	5.	Explain opportunities for leadership development through the FFA.
<b>Unit 2: Personal Development</b>		
	1.	Define common personal development terms:
	2.	Examine personality types using various personality and character evaluations.
	3.	Discuss and identify learning styles.
	4.	Discuss the importance of personal development on career opportunities and advancement.
<b>Unit 3: Experiential Learning</b>		
	1.	Describe the purposes and requirements of the SAE program.
	2.	Develop a short-range personal plan for the SAE program.
	3.	Develop a long-range personal plan for the SAE program.
	4.	Complete a training agreement for an SAE project.
	5.	Describe agricultural record keeping for an SAE project.
	6.	Maintain agricultural records for an SAE project.
	7.	Discuss how an SAE program can develop individual leadership and personal skills.
<b>Unit 4: Communication Skills</b>		
	1.	Define communication.
	2.	Examine the communication cycle.
	3.	Apply the fundamentals of communication.
	4.	Explain the relationship between communication and leadership.

<b>Unit 5: Public Speaking and Parliamentary Procedure</b>		
	1.	Discuss techniques to overcome fear of public speaking.
	2.	Discuss and apply the steps used to prepare a speech:
	3.	Exhibit the fundamentals of speech delivery.
	4.	Define parliamentary procedure and commonly used terminology.
	5.	Demonstrate basic parliamentary procedures in a business meeting.
<b>Unit 6: Workplace Essentials</b>		
	1.	Research career opportunities and employment skills.
	2.	Demonstrate appropriate workplace ethics.
	3.	Demonstrate appropriate professional etiquette skills.
<b>Unit 7: Interpersonal Relationships and Conflict Management</b>		
	1.	Define interpersonal relationships and associated terminology.
	2.	Demonstrate interpersonal skills that contribute to positive work relationships.
	3.	Demonstrate the use of proper procedures for solving conflicts with coworkers, supervisors, and/or customers.
<b>Unit 8: Time Management</b>		
	1.	Explore key aspects of effective time management:
	2.	Identify factors that prevent the proper use of time.
	3.	Discuss the impact of poor and proper time management.
	4.	Develop a time management plan utilizing short-term and long-term goals.
<b>Unit 9: Personal Finance and Money Management</b>		
	1.	Define common finance and money management terms:
	2.	Explore income-earning opportunities in professional settings.
	3.	Explore take-home pay and common payroll deductions.
	4.	Examine savings and how they impact personal finance and money management.
	5.	Examine personal financial techniques.
	6.	Explore proper financial decision-making.
	7.	Identify the role credit plays in personal finance and money management.
	8.	Discuss the different financial investments available to increase wealth and income.
	9.	Explore the role insurance plays in personal finance and money management.

# Appendix A: Industry Standards

## AGRICULTURE, FOOD AND NATURAL RESOURCES (AFNR) PATHWAY CONTENT STANDARDS AND PERFORMANCE ELEMENTS

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9
AFNR									
ABS—AGRIBUSINESS SYSTEMS		X							X
CRP—CAREER-READY PRACTICES	X	X	X	X	X	X	X	X	X
CS—AGRICULTURE, FOOD AND NATURAL RESOURCES CLUSTER SKILL	X	X	X	X	X	X	X	X	X

~~ABS—AGRIBUSINESS SYSTEMS~~

~~AS—ANIMAL SYSTEMS~~

~~BS—BIOTECHNOLOGY~~

~~CRP—CAREER-READY PRACTICES~~

~~CS—AGRICULTURE, FOOD AND NATURAL RESOURCES CLUSTER SKILL~~

~~ES—ENVIRONMENTAL SERVICE SYSTEMS~~

~~FPP—FOOD PRODUCTS AND PROCESSING SYSTEMS~~

~~NRS—NATURAL RESOURCE SYSTEMS~~

~~PS—PLANT SYSTEMS~~

~~PST—POWER, STRUCTURAL, AND TECHNICAL SYSTEMS~~

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### Agribusiness Systems Career Pathway Content Standards

The Agribusiness Systems (ABS) Career Pathway encompasses the study of agribusinesses and their management including, but not limited to, record keeping, budget management (cash and credit), and business planning, and sales and marketing. Students completing a program of study in this pathway will demonstrate competence in the application of principles and techniques for the planning, development, application and management of agribusiness systems in AFNR settings.



Within each pathway, the standards are organized as follows:

- ~~**Common Career Technical Core (CCTC) Standards**~~—These are the standards for Agribusiness Systems (AG-ABS) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- ~~**Performance Indicators**~~—These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

~~**ABS.01. CCTC Standard:** Apply management planning principles in AFNR businesses.~~

~~**ABS.01.01. Performance Indicator:** Apply micro and macroeconomic principles to plan and manage inputs and outputs in an AFNR business.~~

~~**ABS.01.02. Performance Indicator:** Read, interpret, evaluate and write statements of purpose to guide business goals, objectives and resource allocation.~~

~~**ABS.01.03. Performance Indicator:** Devise and apply management skills to organize and run an AFNR business in an efficient, legal and ethical manner.~~

~~**ABS.01.04. Performance Indicator:** Evaluate, develop and implement procedures used to recruit, train and retain productive human resources for AFNR businesses.~~

~~**ABS.02. CCTC Standard:** Use record keeping to accomplish AFNR business objectives, manage budgets and comply with laws and regulations.~~

~~**ABS.02.01. Performance Indicator:** Apply fundamental accounting principles, systems, tools and applicable laws and regulations to record, track and audit AFNR business transactions (e.g., accounts, debits, credits, assets, liabilities, equity, etc.).~~

~~**ABS.02.02. Performance Indicator:** Assemble, interpret and analyze financial information and reports to monitor AFNR business performance and support decision-making (e.g., income statements, balance sheets, cash flow analysis, inventory reports, break-even analysis, return on investment, taxes, etc.).~~

~~**ABS.03. CCTC Standard:** Manage cash budgets, credit budgets and credit for an AFNR business using generally accepted accounting principles.~~

~~**ABS.03.01. Performance Indicator:** Develop, assess and manage cash budgets to achieve AFNR business goals.~~

~~**ABS.03.02. Performance Indicator:** Analyze credit needs and manage credit budgets to achieve AFNR business goals.~~

~~**ABS.04. CCTC Standard:** Develop a business plan for an AFNR business.~~

~~**ABS.04.01. Performance Indicator:** Analyze characteristics and planning requirements associated with developing business plans for different types of AFNR businesses.~~

~~**ABS.04.02. Performance Indicator:** Develop production and operational plans for an AFNR business.~~

~~**ABS.04.03. Performance Indicator:** Identify and apply strategies to manage or mitigate risk.~~

~~**ABS.05. CCTC Standard:** Use sales and marketing principles to accomplish AFNR business objectives.~~

~~**ABS.05.01. Performance Indicator:** Analyze the role of markets, trade, competition and price in relation to an AFNR business sales and marketing plans.~~

~~**ABS.05.02. Performance Indicator:** Assess and apply sales principles and skills to accomplish AFNR business objectives.~~

~~**ABS.05.03. Performance Indicator:** Assess marketing principles and develop marketing plans to accomplish AFNR business objectives.~~

## ~~Common Career Technical Core Career Ready Practices Content Standards~~

~~The CCTC CRPs encompass fundamental skills and practices that all students should acquire to be career ready such as: responsibility, productivity, healthy choices, maintaining personal finances, communication, decision-making, creativity and innovation, critical thinking, problem solving, integrity, ethical leadership, management, career planning, technology use and cultural/global competency. Students completing a program of study in any AFNR career pathway will demonstrate the knowledge, skills and behaviors that are important to career ready through experiences in a variety of settings (e.g., classroom, CTSO, work-based learning, community etc.).~~

~~**DEFINITIONS:** Within each pathway, the standards are organized as follows:~~

- ~~• **Common Career Technical Core (CCTC) Standards**—These are the standards for CRPs from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.~~
- ~~• **Performance Indicators**—These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a CTE program of study.~~

~~**CRP.01. CCTC Standard:** Act as a responsible and contributing citizen and employee.~~

~~**CRP.01.01. Performance Indicator:** Model personal responsibility in the workplace and community.~~

~~**CRP.01.02 Performance Indicator:** Evaluate and consider the near-term and long-term impacts of personal and professional decisions on employers and community before taking action.~~

~~**CRP.01.03. Performance Indicator:** Identify and act upon opportunities for professional and civic service at work and in the community.~~

~~CRP.02. CCTC Standard: Apply appropriate academic and technical skills.~~

~~CRP.02.01. Performance Indicator: Use strategic thinking to connect and apply academic learning, knowledge and skills to solve problems in the workplace and community.~~

~~CRP.02.02. Performance Indicator: Use strategic thinking to connect and apply technical concepts to solve problems in the workplace and community.~~

~~CRP.03. CCTC Standard: Attend to personal health and financial well-being.~~

~~CRP.03.01. Performance Indicator: Design and implement a personal wellness plan.~~

~~CRP.03.02. Performance Indicator: Design and implement a personal financial management plan.~~

~~CRP.04. CCTC Standard: Communicate clearly, effectively and with reason.~~

~~CRP.04.01. Performance Indicator: Speak using strategies that ensure clarity, logic, purpose and professionalism in formal and informal settings.~~

~~CRP.04.02. Performance Indicator: Produce clear, reasoned and coherent written and visual communication in formal and informal settings.~~

~~CRP.04.03. Performance Indicator: Model active listening strategies when interacting with others in formal and informal settings.~~

~~CRP.05. CCTC Standard: Consider the environmental, social and economic impacts of decisions.~~

~~CRP.05.01. Performance Indicator: Assess, identify and synthesize the information and resources needed to make decisions that positively impact the workplace and community.~~

~~CRP.05.02. Performance Indicator: Make, defend and evaluate decisions at work and in the community using information about the potential environmental, social and economic impacts.~~

~~CRP.06. CCTC Standard: Demonstrate creativity and innovation.~~

~~CRP.06.01. Performance Indicator: Synthesize information, knowledge and experience to generate original ideas and challenge assumptions in the workplace and community.~~

~~CRP.06.02. Performance Indicator: Assess a variety of workplace and community situations to identify ways to add value and improve the efficiency of processes and procedures.~~

~~CRP.06.03. Performance Indicator: Create and execute a plan of action to act upon new ideas and introduce innovations to workplace and community organizations.~~

~~CRP.07. CCTC Standard: Employ valid and reliable research strategies.~~

~~CRP.07.01. Performance Indicator: Select and implement reliable research processes and methods to generate data for decision-making in the workplace and community.~~

~~CRP.07.02. Performance Indicator: Evaluate the validity of sources and data used when considering the adoption of new technologies, practices and ideas in the workplace and community.~~

~~**CRP.08. CCTC Standard:** Utilize critical thinking to make sense of problems and persevere in solving them.~~

~~**CRP.08.01. Performance Indicator:** Apply reason and logic to evaluate workplace and community situations from multiple perspectives.~~

~~**CRP.08.02. Performance Indicator:** Investigate, prioritize and select solutions to solve problems in the workplace and community.~~

~~**CRP.08.03. Performance Indicator:** Establish plans to solve workplace and community problems and execute them with resiliency.~~

~~**CRP.09. CCTC Standard:** Model integrity, ethical leadership and effective management.~~

~~**CRP.09.01. Performance Indicator:** Model characteristics of ethical and effective leaders in the workplace and community (e.g. integrity, self-awareness, self-regulation, etc.).~~

~~**CRP.09.02. Performance Indicator:** Implement personal management skills to function effectively and efficiently in the workplace (e.g., time management, planning, prioritizing, etc.).~~

~~**CRP.09.03. Performance Indicator:** Demonstrate behaviors that contribute to a positive morale and culture in the workplace and community (e.g., positively influencing others, effectively communicating, etc.).~~

~~**CRP.10. CCTC Standard:** Plan education and career path aligned to personal goals.~~

~~**CRP.10.01. Performance Indicator:** Identify career opportunities within a career cluster that match personal interests, talents, goals and preferences.~~

~~**CRP.10.02. Performance Indicator:** Examine career advancement requirements (e.g., education, certification, training, etc.) and create goals for continuous growth in a chosen career.~~

~~**CRP.10.03. Performance Indicator:** Develop relationships with and assimilate input and/or advice from experts (e.g., counselors, mentors, etc.) to plan career and personal goals in a chosen career area.~~

~~**CRP.10.04. Performance Indicator:** Identify, prepare, update and improve the tools and skills necessary to pursue a chosen career path.~~

~~**CRP.11. CCTC Standard:** Use technology to enhance productivity.~~

~~**CRP.11.01. Performance Indicator:** Research, select and use new technologies, tools and applications to maximize productivity in the workplace and community.~~

~~**CRP.11.02. Performance Indicator:** Evaluate personal and organizational risks of technology use and take actions to prevent or minimize risks in the workplace and community.~~

~~**CRP.12. CCTC Standard:** Work productively in teams while using cultural/global competence.~~

~~**CRP.12.01. Performance Indicator:** Contribute to team-oriented projects and builds consensus to accomplish results using cultural/global competence in the workplace and community.~~

~~**CRP.12.02. Performance Indicator:** Create and implement strategies to engage team members to work toward team and organizational goals in a variety of workplace and community situations (e.g., meetings, presentations, etc.).~~

## **Agriculture, Food, and Natural Resources Cluster Skill Content Standards**

The AFNR Cluster Skills (CS) encompasses the study of fundamental knowledge and skills related to all AFNR professions. Students completing a program of study in any AFNR career pathway will demonstrate fundamental knowledge of the nature, scope and relationships of AFNR systems and the skills necessary for analysis of current and historical issues and trends; application of technologies; safety, health and environmental practices; stewardship of natural resources; and exploration of career opportunities.

Within each pathway, the standards are organized as follows:

- **Common Career Technical Core (CCTC) Standards**—These are the standards for Agriculture, Food and Natural Resources Career Cluster® (AG) from the 2012 version of the Common Career and Technical Core Standards, which are owned by the National Association of State Directors of Career and Technical Education/National Career Technical Education Foundation and are used here with permission. These statements define what students should know and be able to do after completing instruction in a program of study for this pathway.
- **Performance Indicators**—These statements distill each CCTC Standard into more discrete indicators of the knowledge and skills students should attain through a program of study in this pathway. Attainment of the knowledge and skills outlined in the performance indicators is intended to demonstrate an acceptable level of proficiency with the related CCTC Standard at the conclusion of a program of study in this area.

**CS.01. CCTC Standard:** Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster.

**CS.01.01. Performance Indicator:** Research, examine and discuss issues and trends that impact AFNR systems on local, state, national and global levels.

**CS.01.02. Performance Indicator:** Examine technologies and analyze their impact on AFNR systems.

**CS.01.03. Performance Indicator:** Identify public policies and examine their impact on AFNR systems.

**CS.02. CCTC Standard:** Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy.

**CS.02.01. Performance Indicator:** Research and use geographic and economic data to solve problems in AFNR systems.

**CS.02.02. Performance Indicator:** Examine the components of the AFNR systems and assess their impact on the local, state, national and global society and economy.

**CS.03. CCTC Standard:** Examine and summarize the importance of health, safety and environmental management systems in AFNR workplaces.

**CS.03.01. Performance Indicator:** Identify and explain the implications of required regulations to maintain and improve safety, health and environmental management systems.

**CS.03.02. Performance Indicator:** Develop and implement a plan to maintain and improve health, safety and environmental compliance and performance.

~~**CS.03.03. Performance Indicator:** Apply health and safety practices to AFNR workplaces.~~

~~**CS.03.04. Performance Indicator:** Use appropriate protective equipment and demonstrate safe and proper use of AFNR tools and equipment.~~

~~**CS.04. CCTC Standard:** Demonstrate stewardship of natural resources in AFNR activities.~~

~~**CS.04.01. Performance Indicator:** Identify and implement practices to steward natural resources in different AFNR systems.~~

~~**CS.04.02. Performance Indicator:** Assess and explain the natural resource related trends, technologies and policies that impact AFNR systems.~~

~~**CS.05. CCTC Standard:** Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.~~

~~**CS.05.01. Performance Indicator:** Evaluate and implement the steps and requirements to pursue a career opportunity in each of the AFNR career pathways (e.g., goals, degrees, certifications, resumes, cover letter, portfolios, interviews, etc.).~~

~~**CS.06. CCTC Standard:** Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.~~

~~**CS.06.01. Performance Indicator:** Examine and explain foundational cycles and systems of AFNR.~~

~~**CS.06.02. Performance Indicator:** Analyze and explain the connection and relationships between different AFNR systems on a national and global level.~~

## Appendix B: 21st Century Skills<sup>1</sup>

	Units	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9
21 <sup>st</sup> -Century Standards										
CS1		X	X	X	X	X	X	X	X	
CS2										X
CS3		X	X	X	X	X	X	X	X	
CS4		X	X							
CS6		X	X	X	X	X	X	X	X	X
CS7		X	X	X	X	X	X	X	X	X
CS8		X	X	X	X	X	X	X	X	X
CS9		X	X	X	X	X	X	X	X	X
CS10		X	X	X	X	X	X	X	X	X
CS11		X	X	X	X	X	X	X	X	X
CS12		X	X	X	X	X	X	X	X	X
CS13		X	X	X	X	X	X	X	X	X
CS14		X	X	X	X	X	X	X	X	X
CS15		X	X	X	X	X	X	X	X	X
CS16		X	X	X	X	X	X	X	X	X

### CSS1-21st Century Themes

#### CS1—Global Awareness

1. Using 21st century skills to understand and address global issues
2. Learning from and working collaboratively with individuals representing diverse cultures, religions, and lifestyles in a spirit of mutual respect and open dialogue in personal, work, and community contexts
3. Understanding other nations and cultures, including the use of non-English languages

#### CS2—Financial, Economic, Business, and Entrepreneurial Literacy

1. Knowing how to make appropriate personal economic choices
2. Understanding the role of the economy in society
3. Using entrepreneurial skills to enhance workplace productivity and career options

#### CS3—Civic Literacy

1. Participating effectively in civic life through knowing how to stay informed and understanding governmental processes
2. Exercising the rights and obligations of citizenship at local, state, national, and global levels
3. Understanding the local and global implications of civic decisions

#### CS4—Health Literacy

1. Obtaining, interpreting, and understanding basic health information and services and using such information and services in ways that enhance health
2. Understanding preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance, and stress reduction
3. Using available information to make appropriate health-related decisions

<sup>1</sup> *21st century skills*. (n.d.). Washington, DC: Partnership for 21st Century Skills.

- ~~4. Establishing and monitoring personal and family health goals~~
- ~~5. Understanding national and international public health and safety issues~~

#### ~~CS5—Environmental Literacy~~

- ~~1. Demonstrate knowledge and understanding of the environment and the circumstances and conditions affecting it, particularly as relates to air, climate, land, food, energy, water, and ecosystems.~~
- ~~2. Demonstrate knowledge and understanding of society's impact on the natural world (e.g., population growth, population development, resource consumption rate, etc.).~~
- ~~3. Investigate and analyze environmental issues, and make accurate conclusions about effective solutions.~~
- ~~4. Take individual and collective action toward addressing environmental challenges (e.g., participating in global actions, designing solutions that inspire action on environmental issues).~~

### ~~CSS2 Learning and Innovation Skills~~

#### ~~CS6—Creativity and Innovation~~

- ~~1. Think Creatively~~
- ~~2. Work Creatively with Others~~
- ~~3. Implement Innovations~~

#### ~~CS7—Critical Thinking and Problem Solving~~

- ~~1. Reason Effectively~~
- ~~2. Use Systems Thinking~~
- ~~3. Make Judgments and Decisions~~
- ~~4. Solve Problems~~

#### ~~CS8—Communication and Collaboration~~

- ~~1. Communicate Clearly~~
- ~~2. Collaborate with Others~~

### ~~CSS3 Information, Media and Technology Skills~~

#### ~~CS9—Information Literacy~~

- ~~1. Access and Evaluate Information~~
- ~~2. Use and Manage Information~~

#### ~~CS10—Media Literacy~~

- ~~1. Analyze Media~~
- ~~2. Create Media Products~~

#### ~~CS11—ICT Literacy~~

- ~~1. Apply Technology Effectively~~

### ~~CSS4 Life and Career Skills~~

#### ~~CS12—Flexibility and Adaptability~~

- ~~1. Adapt to change~~
- ~~2. Be Flexible~~

#### ~~CS13—Initiative and Self-Direction~~

- ~~1. Manage Goals and Time~~
- ~~2. Work Independently~~



- ~~3. Be Self-directed Learners~~
- ~~**CS14 Social and Cross-Cultural Skills**~~
  - ~~1. Interact Effectively with others~~
  - ~~2. Work Effectively in Diverse Teams~~
- ~~**CS15 Productivity and Accountability**~~
  - ~~1. Manage Projects~~
  - ~~2. Produce Results~~
- ~~**CS16 Leadership and Responsibility**~~
  - ~~1. Guide and Lead Others~~
  - ~~2. Be Responsible to Others~~

# Appendix C: College and Career Ready Standards

	Units	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9
W.9.1		X	X	X	X	X	X	X	X	X
W.9.2		X	X	X	X	X	X	X	X	X
W.9.3		X	X	X	X	X	X	X	X	X
W.9.4		X	X	X	X	X	X	X	X	X
W.9.5		X	X	X	X	X	X	X	X	X
W.9.6		X	X	X	X	X	X	X	X	X
W.9.8		X	X	X	X	X	X	X	X	X
W.9.9		X	X	X	X	X	X	X	X	X
W.9.10		X	X	X	X	X	X	X	X	X
SL.9.1		X	X	X	X	X	X	X	X	X
SL.9.2		X	X	X	X	X	X	X	X	X
SL.9.3		X	X	X	X	X	X	X	X	X
SL.9.4		X	X	X	X	X	X	X	X	X
SL.9.5		X	X	X	X	X	X	X	X	X
SL.9.6		X	X	X	X	X	X	X	X	X
L.9.1		X	X	X	X	X	X	X	X	X
L.9.2		X	X	X	X	X	X	X	X	X
L.9.3		X	X	X	X	X	X	X	X	X
L.9.4		X	X	X	X	X	X	X	X	X
L.9.5		X	X	X	X	X	X	X	X	X
L.9.6		X	X	X	X	X	X	X	X	X
RI.11.3			X	X	X	X	X	X	X	X
RI.11.4			X	X	X	X	X	X	X	X
RI.11.5			X	X	X	X	X	X	X	X
RI.11.6			X	X	X	X	X	X	X	X
RI.11.7					X	X		X		
W.11.1					X	X	X			
W.11.2					X	X	X			
W.11.4					X	X	X			
W.11.5					X	X	X			
W.11.6					X	X	X			
W.11.7					X	X	X			
W.11.8					X	X	X			
SL.11.1					X	X	X			
SL.11.2					X	X	X			
SL.11.3					X	X	X			
SL.11.4					X	X	X			
SL.11.5					X	X	X			
SL.11.6					X	X	X			
L.11.1					X	X	X			
L.11.2					X	X	X			
L.11.3					X	X	X			
L.11.4					X	X	X			

## College and Career Ready English I

### Writing Text Types and Purposes

W.9.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

W.9.1a Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.

W.9.1b Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.

W.9.1c Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.

W.9.1d Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

W.9.1e Provide a concluding statement or section that follows from and supports the argument presented.

W.9.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

W.9.2a Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

W.9.2b Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

W.9.2c Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

### College and Career Ready English I

W.9.2d Use precise language and domain-specific vocabulary to manage the complexity of the topic.

W.9.2e Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

W.9.2f Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

W.9.3 Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

W.9.3a Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.

W.9.3b Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.

W.9.3c Use a variety of techniques to sequence events so that they build on one another to create a coherent whole.

W.9.3d Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.

W.9.3e Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.

### Production and Distribution of Writing

W.9.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

W.9.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 9–10.)

W.9.6 Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

### College and Career Ready English I

W.9.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.

W.9.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

W.9.9a Apply grades 9–10 Reading standards to literature (e.g., “Analyze how an author draws on and transforms source material in a specific work [e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare]”).

W.9.9b Apply grades 9–10 Reading standards to literary nonfiction (e.g., “Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning”).

### Range of Writing

W.9.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audience.

### College and Career Ready English I

SL.9.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

SL.9.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

SL.9.1b Work with peers to set rules for collegial discussions and decision making (e.g., informal consensus, taking votes on key issues, and presentation of alternate views), clear goals and deadlines, and individual roles as needed.

SL.9.1c Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

SL.9.1d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.

SL.9.2 Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.

SL.9.3 Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence. —

### Presentation of Knowledge and Ideas

SL.9.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

### College and Career Ready English I

SL.9.5 Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

SL.9.6 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grades 9–10 Language standards 1 and 3 for specific expectations.)

### College and Career Ready English I

#### Language

#### Conventions of Standard English

L.9.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

L.9.1a Use parallel structure.\*

L.9.1b Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to convey specific meanings and add variety and interest to writing or presentations.

L.9.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

L.9.2a Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.

L.9.2b Use a colon to introduce a list or quotation.

L.9.2c Spell correctly

### Knowledge of Language

L.9.3 Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening

L.9.3a Write and edit work so that it conforms to the guidelines in a style manual (e.g., MLA Handbook, Turabian's Manual for Writers) appropriate for the discipline and writing type.

#### Vocabulary Acquisition and Use

L.9.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 9–10 reading and content, choosing flexibly from a range of strategies.

L.9.4a Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.

L.9.4b Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis, analytical; advocate, advocacy).

#### College and Career Ready English I

L.9.4c Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology.

L.9.4d Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

L.9.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

L.9.5a Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text.

L.9.5b Analyze nuances in the meaning of words with similar denotations.

L.9.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

#### English III

##### Writing

W.11.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

W.11.1a Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.

W.11.1b Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases.

W.11.1c Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.

W.11.1d Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

W.11.1e Provide a concluding statement or section that follows from and supports the argument presented.

W.11.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

W.11.2a Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

##### English III

W.11.2b Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

W.11.2c Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

W.11.2d Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.

W.11.2e Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

W.11.2f Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

W.11.3 Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

W.11.3a Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.

W.11.3b Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.

W.11.3c Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution).

W.11.3d Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.

W.11.3e Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.

#### Production and Distribution of Writing

W.11.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

#### English III

W.11.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 11–12.)

W.11.6 Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

#### Research to Build and Present Knowledge

W.11.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

W.11.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

W.11.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

W.11.9a Apply grades 11–12 Reading standards to literature (e.g., “Demonstrate knowledge of eighteenth-, nineteenth- and early twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics”).

W.11.9b Apply grades 11–12 Reading standards to literary nonfiction (e.g., “Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning [e.g., in U.S. Supreme Court Case majority opinions and dissents] and the premises, purposes, and arguments in works of public advocacy [e.g., The Federalist, presidential addresses]”).

#### Range of Writing

W.11.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

## English III

### Speaking and Listening

#### Comprehension and Collaboration

SL.11.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

SL.11.1a Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

SL.11.1b Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.

SL.11.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.

SL.11.1d Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.

SL.11.2 Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

SL.11.3 Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.

#### Presentation of Knowledge and Ideas

SL.11.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

## English III

SL.11.5 Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

SL.11.6 Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate. (See grades 11–12 Language standards 1 and 3 for specific expectations.)

## English III

### Language

#### Conventions of Standard English

L.11.1a Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested.

L.11.1b Resolve issues of complex or contested usage, consulting references (e.g., Merriam-Webster's Dictionary of English Usage, Garner's Modern American Usage) as needed.

L.11.2a Observe hyphenation conventions.

L.11.3a Vary syntax for effect, consulting references (e.g., Tufte's Artful Sentences) for guidance as needed; apply an understanding of syntax to the study of complex texts when reading. —

#### Vocabulary Acquisition and Use

L.11.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 11–12 reading and content, choosing flexibly from a range of strategies.

L.11.4b Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable).

## ~~Appendix D: International Society for Technology in Education Standards (ISTE)~~

	Course	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9
<b>ISTE Standards</b>										
<del>T1</del>		<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
<del>T2</del>		<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
<del>T3</del>		<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
<del>T4</del>		<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
<del>T5</del>		<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>
<del>T6</del>		<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>

~~T1—Creativity and Innovation~~

~~T2—Communication and Collaboration~~

~~T3—Research and Information Fluency~~

~~T4—Critical Thinking, Problem Solving, and Decision Making~~

~~T5—Digital Citizenship~~

~~T6—Technology Operations and Concepts~~

~~T1—Creativity and Innovation~~

~~Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students do the following:~~

- ~~a.—Apply existing knowledge to generate new ideas, products, or processes.~~
- ~~b.—Create original works as a means of personal or group expression.~~
- ~~c.—Use models and simulations to explore complex systems and issues.~~
- ~~d.—Identify trends and forecast possibilities.~~

~~T2—Communication and Collaboration~~

~~Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students do the following:~~

- ~~a.—Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.~~
- ~~b.—Communicate information and ideas effectively to multiple audiences using a variety of media and formats.~~
- ~~c.—Develop cultural understanding and global awareness by engaging with learners of other cultures.~~
- ~~d.—Contribute to project teams to produce original works or solve problems.~~



**T3**—~~Research and Information Fluency~~

~~Students apply digital tools to gather, evaluate, and use information. Students do the following:~~

- ~~a. Plan strategies to guide inquiry.~~
- ~~b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.~~
- ~~c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.~~
- ~~d. Process data and report results.~~

**T4**—~~Critical Thinking, Problem Solving, and Decision Making~~

~~Students use critical-thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students do the following:~~

- ~~a. Identify and define authentic problems and significant questions for investigation.~~
- ~~b. Plan and manage activities to develop a solution or complete a project.~~
- ~~c. Collect and analyze data to identify solutions and/or make informed decisions.~~
- ~~d. Use multiple processes and diverse perspectives to explore alternative solutions.~~

**T5**—~~Digital Citizenship~~

~~Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students do the following:~~

- ~~a. Advocate and practice safe, legal, and responsible use of information and technology.~~
- ~~b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.~~
- ~~c. Demonstrate personal responsibility for lifelong learning.~~
- ~~d. Exhibit leadership for digital citizenship.~~

**T6**—~~Technology Operations and Concepts~~

~~Students demonstrate a sound understanding of technology concepts, systems, and operations. Students do the following:~~

- ~~a. Understand and use technology systems.~~
- ~~b. Select and use applications effectively and productively.~~
- ~~c. Troubleshoot systems and applications.~~
- ~~d. Transfer current knowledge to learning of new technologies.~~