OFFICE OF CHIEF SCHOOL AND DISTRICT TRANSFORMATION OFFICER
Summary of State Board of Education Agenda Items
Consent Agenda
January 16, 2025

OFFICE OF CAREER AND TECHNICAL EDUCATION

E.   Approval to begin the Administrative Procedures Act process: To revise selected Mississippi Secondary Curriculum Frameworks in Career and Technical Education

Executive Summary

The Mississippi Secondary Curriculum Frameworks have a two-year or four-year curricula revision cycle. The revision cycle includes input from local district personnel and business/industry partners. Approved secondary curricula will be disseminated for implementation in the 2025-2026 school year.

The following secondary curriculum frameworks are recommended for approval:
1. Business, Marketing, and Finance
2. Carpentry
3. Contemporary Health
4. Culinary Arts
5. Cyber Foundations I
6. Cyber Foundations II
7. Exploring Careers
8. Exploring Computer Science
9. Family and Consumer Science
10. Fire Science
11. Forestry
12. Horticulture
13. Information Technology Core
14. Interactive Media Technology (formerly Simulation and Animation Design)
15. Meat Science and Muscle Biology (Formerly Food Products)
16. Welding

All curricula frameworks are designed to provide local programs with an instructional foundation that can be used to develop localized instructional management plans and course syllabi. Additionally, the frameworks include the following elements for each revised secondary curriculum:

❖ Program
❖ Description
❖ Classification of Instructional Program (CIP) Code and CIP Name
❖ Course Outline and Codes

➢ Curriculum
➢ Student Competencies
➢ Suggested Student Objectives

NOTE: The Office of Career and Technical Education has provided executive summaries of the curriculum framework revisions. The detailed documents are available upon request.

Recommendation: Approval

Back-up material attached

Summary of Secondary Curricula Revisions for Career & Technical Education

2025 Business, Marketing, and Finance
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Unit 1- updated wording and moved Competency 5-9 to new Unit 2, Communication and Ethics.
- Unit 2- Created new Unit 2 Communication and Ethics and moved Competencies 5-9 from Unit 1 to new Unit 2.
- Unit 3- Moved old Unit 2 to Unit 3, added to concepts in Competency 1, shortened and moved some suggested objectives to Competency 2, and updated resource mentioned in Competency 5.
- Unit 4- Moved Entrepreneurship to Unit 12 and renamed from Unit 3, Personal Finance: Decision-Making and Income to Unit 4, Personal Finance: Decision-Making, Income, and Money Management, added objectives to Competency 2, deleted objectives from Competency 3, updated word usage in Competency 5 and combined old Unit 6 Personal Finance- Money Management into this unit.
- Unit 5- Moved Microeconomics to Unit 6. Unit 5 is now Personal Finance: Credit and Risk Management and it moved from Unit 16.
- Unit 6- Is now Microeconomics (old unit 5), deleted Objective A from Competency 1, and reworded Competency 3.
- Unit 7- Reworded some of the competencies in this unit and combined some competencies from old Unit 8 (Market Research and Analysis).
- Took some competencies from Market Research and Analysis and deleted it as a standalone unit.
- Unit 8- Combined old Unit 8 with Unit 7 and moved Unit 10 to Unit 8 (Review of Workplace Safety and Security).
- Unit 9- Moved old Unit 9 (Career Readiness and Exploration) to Unit 16, moved Unit 15 (Macroeconomics) to Unit 9 and deleted Unit 11 (International Economics).
- Unit 10- Moved old Unit 13 (Applied Human Resource Management) to Unit 10.
- Unit 11- Moved old Unit 14 (Strategic and Operations Management) to Unit 11 and added an objective to Competency 3.
- Unit 12- Moved old Unit 4 (Entrepreneurship) to Unit 12, deleted old Competency 3, added Competencies 3 and 4 to include LEAN Startup Methods, added Competency 5 about product development, and moved Competency 4 to Competency 9.
- Took some competencies from International Economics and deleted it as a standalone unit.
- Unit 13- Moved Unit 12 (Personal Finance: Purchasing and Financial Institutions) to Unit 13, added "digital pay forms" to Competency 3, and reworded Competency 4 Objective B.
- Unit 14- Moved old Unit 17 (Financial Accounting) to Unit 14, deleted Competency 2, and added Competency 4.
- Unit 15- Moved Unit 19 (Managerial Accounting) to Unit 15 and deleted Competency 2.
- Unit 16- Moved Unit 9 (Career Readiness and Exploration) to Unit 16, deleted Competencies 1-7 and created new Competencies for 1-5, using some information from old Unit 20 Employment Opportunities in Business
- Took some competencies from Employment Opportunities in Business and deleted it as a standalone unit.

- Deleted the unit "Budgets and Forecasting in Finance".

2025 Carpentry
- Document in new curriculum format.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Competencies and objectives reflect current standards and industry recommendations.
- Unit 1: Emphasizes updated policies and introduces new tools for communication and leadership development and removed the mention of the school handbook and acceptable use policy. That should be understood and not part of the curriculum. It includes enhanced safety protocols and updated OSHA standards, focusing on new safety technologies and practices. This unit also reinforces the safety topics covered in Construction Core and enhances it by adding the option of OSHA 10 training. This unit also reiterates the incorporation of student organizations.
- Unit 2: This unit replaces the old unit 2, which is covered by the inclusion of OSHA 10 into Unit 1. This unit reviews the selection of building materials, fasteners, and adhesives taken from Construction Core.
- Unit 3: This is a new unit that introduces the identification of construction drawings and specifications.
- Unit 4: This is a new unit that introduces site and building layouts and utilizing measurement and leveling tools.
- Unit 5: This is an expansion of old Unit 6. It incorporates calculating the quantity of required material for construction planning and discusses platform floor assemblies.
- Unit 6: This is an expansion of old Unit 7. It incorporates calculating the quantity of required material for wall systems. Roof framing has been moved to the next unit.
- Unit 7: Pulls from old Unit 7 and separates out the fundamentals of roof construction.
- Unit 8: Pulls from old Unit 9 and incorporates calculating the rise and run for a stairway to determine number of risers and treads.
- Unit 9: Pulls from old Unit 8 and includes advanced design techniques regarding residential and non-residential doors and windows.
- * - Concepts from old unit 10 have been incorporated throughout the new revision.

2025 Contemporary Health
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Verb changes throughout document reflect a high level of learning, thinking, and doing.
- Unit 1 – Competency 2 reworded into an objective under Competency 1
- Note added at end of unit that all courses with a CTE course code are required to take a safety test with 100% mastery.
- Unit 2 – Enrichment Experience added at end of unit to explore Adverse Childhood Experiences and how they impact overall health.
- Unit 3 – competencies reordered, and objective taken from Unit 9 and added to Competency 2 to address dangerous social situations, such as rape, assault, and gang-related activities
- Unit 3 – note added to end of unit regarding district's choice of abstinence-only or abstinence-plus

- Unit 4 – no change
- Unit 5 – no change
- Unit 6 – no change
- Unit 7 – Competencies 3, 4, and 5 combined into one competency
- Unit 7 – objective added to Competency 4 to explore various resources for addiction support and intervention
- Unit 8 – objective in Competency 2 expanded upon to explore methods of sustainability such as recycling, upcycling, and repurposing
- Unit 9 – no change

2025 Culinary Arts
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Unit 1- The orientation was expanded from 10.5 hours to 15 hours, with a stronger emphasis on industry standards and safety practices.
- Unit 2- The content was consolidated into an "Overview of the Foodservice and Hospitality Industry," with the hours increased to 15, adding more detailed insights into the industry.
- Unit 3- "Safety in the Workplace" retained its importance but was slightly reduced in hours.
- Unit 4- "Food Safety Basics" was introduced as a separate unit with a significant increase in hours to 40, covering comprehensive food safety measures.
- Unit 5- The unit was refined to include more detailed instructions and the importance of standardized recipes, with an increased emphasis on culinary math, extending to 50 hours.
- Unit 6- This was split into a distinct unit, with a significant increase in allocated hours, emphasizing a more thorough understanding and application of culinary tools.
- Unit 7- Now a separate unit that provides more detailed instruction on culinary techniques.
- Unit 8- Expanded content with more detailed objectives and an emphasis on bakery terms, ingredient categories, and cake decorating essentials, extending to 40 hours.
- Unit 9- The advanced studies were restructured, focusing on comprehensive food safety, culinary business principles, and advanced kitchen techniques, with more hours dedicated to these topics.

2025 Cyber Foundations I
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Unit 1: Orientation, Digital Citizenship, and Keyboarding
  - Expanded scope: In 2025, the focus on AI and its ethical use is new. The 2020 curriculum did not include AI in its digital citizenship framework.
  - Digital Media Habits: The 2025 curriculum has more detailed analysis of media habits and the time spent on different platforms, encouraging reflection and discussion.

- ○ Cyberbullying and Social Media: The 2025 curriculum includes more comprehensive content on cyberbullying and how social media impacts personal and professional life, which was less detailed in the 2020 version.
  - ○ Keyboarding: Both versions focus on keyboarding, but the 2025 version incorporates AI tools for improving productivity, which is a new element.
- Unit 2: Student Organizations, Leadership, and Career Exploration
  - ○ Leadership Integration: In 2025, leadership skills are more thoroughly integrated into the context of student organizations and career exploration, compared to the separate treatment of leadership in 2020.
  - ○ Career Exploration Focus: The 2025 curriculum places greater emphasis on career pathways and the role of student organizations in fostering career readiness and leadership development.
  - ○ New Leadership Activities: The 2025 version includes leadership simulations and role-playing exercises that were not part of the 2020 curriculum, providing a more active approach to leadership training.
- Unit 3: 21st Century Toolbox
  - ○ Expanded Digital Literacy: The 2025 version significantly broadens the digital literacy focus by incorporating AI, especially its ethical implications and role in problem-solving.
  - ○ Time Management and Public Speaking: Both versions cover these topics, but the 2025 version includes AI tools to help students with time management and study skills.
  - ○ Collaboration and AI: The 2025 curriculum introduces collaboration using AI-driven productivity tools, giving students exposure to AI-enhanced teamwork that was absent in 2020.
- Unit 4: Productivity Tools
  - ○ AI Integration: A major shift from 2020, the 2025 curriculum incorporates AI features such as chatbots, prompt engineering, and AI-assisted document creation in word processing, spreadsheets, and presentations.
  - ○ New Ethical Focus: The 2025 curriculum emphasizes ethical use of AI in productivity tools, discussing how AI impacts workflows and careers, which was not covered in 2020.
  - ○ Advanced Tools: In 2025, students explore AI tools that automate tasks like formatting, grammar checking, and data analysis—features absent in the 2020 version.
- Unit 5: Block-Based Programming
  - ○ Transition to Text-Based Programming: The 2025 version includes a new section on transitioning from block-based to text-based programming, helping students advance their skills, which the 2020 curriculum did not offer.
  - ○ Advanced Problem-Solving: The 2025 curriculum introduces more complex problem-solving activities using AI and programming, enhancing the depth of student engagement.
  - ○ Debugging and Ethical AI: New in 2025 is a focus on debugging code generated by AI, with an emphasis on the ethical implications of using AI in programming tasks, not covered in 2020.
- Unit 6: Cybersecurity
  - ○ AI in Cybersecurity: The 2025 curriculum includes AI's role in cybersecurity for the first time, teaching students how AI can assist in threat detection and anomaly recognition.

- ○ Adversarial Thinking: The concept of adversarial thinking has been introduced in 2025, focusing on how to anticipate and mitigate cyber threats, which was not covered in 2020.
  - ○ Expanded Cyber Threats: While the 2020 version touched on cyber threats, the 2025 curriculum dives deeper into the CIA Triad (Confidentiality, Integrity, Availability) and real-world applications of these concepts.
- Unit 7: Data, Computers, and Society
  - ○ Data Science and AI: The 2025 curriculum now includes sections on AI in data science, particularly in data collection, analysis, and interpretation, which was missing from 2020.
  - ○ Binary Systems and ASCII: The 2025 version delves deeper into ASCII and binary systems, enhancing students' understanding of how data is represented and processed, which was only briefly covered in 2020.
  - ○ Advanced Data Representation: There's a new focus on data cleaning and data-driven decision-making in the 2025 curriculum, allowing students to apply these skills in real-world contexts.
- Unit 8: App Design
  - ○ AI in App Development: The 2025 curriculum introduces AI tools for app development, such as natural language processing and user interaction enhancements, absent in 2020.
  - ○ User-Centered Design: The 2025 version places a stronger emphasis on user-centered design and prototyping, encouraging students to test and revise apps based on user feedback—expanding on the simpler design process taught in 2020
  - ○ Ethics in AI: The 2025 curriculum includes ethical considerations for using AI in app design, particularly around user data and AI's role in enhancing user experience, which wasn't addressed in 2020.
- Unit 9: Multimedia
  - ○ AI in Graphic Design: In 2025, there is a new section on using AI tools in multimedia projects, such as automated design suggestions and image editing, which were not part of the 2020 curriculum.
  - ○ Web Development Enhancements: The 2025 curriculum expands on web development, focusing on drag-and-drop website builders and the integration of multimedia elements into functional, aesthetically pleasing websites.
  - ○ Ethical Considerations: The 2025 version introduces discussions about the ethical and legal issues surrounding digital content creation, including copyright and fair use, which were less emphasized in 2020.

2025 Cyber Foundations II
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Unit 1: Orientation, Digital Citizenship, and Keyboarding
  - ○ Expanded scope: In 2025, the focus on AI and its ethical use is new. The 2020 curriculum did not include AI in its digital citizenship framework.
  - ○ Digital Media Habits: The 2025 curriculum has more detailed analysis of media habits and the time spent on different platforms, encouraging reflection and discussion.

- ○ Cyberbullying and Social Media: The 2025 curriculum includes more comprehensive content on cyberbullying and how social media impacts personal and professional life, which was less detailed in the 2020 version.
  - ○ Keyboarding: Both versions focus on keyboarding, but the 2025 version incorporates AI tools for improving productivity, which is a new element.
- Unit 2: Student Organizations, Leadership, and Career Exploration
  - ○ Leadership Integration: In 2025, leadership skills are more thoroughly integrated into the context of student organizations and career exploration, compared to the separate treatment of leadership in 2020.
  - ○ Career Exploration Focus: The 2025 curriculum places greater emphasis on career pathways and the role of student organizations in fostering career readiness and leadership development.
  - ○ New Leadership Activities: The 2025 version includes leadership simulations and role-playing exercises that were not part of the 2020 curriculum, providing a more active approach to leadership training.
- Unit 3: 21st Century Toolbox
  - ○ Expanded Digital Literacy: The 2025 version significantly broadens the digital literacy focus by incorporating AI, especially its ethical implications and role in problem-solving.
  - ○ Time Management and Public Speaking: Both versions cover these topics, but the 2025 version includes AI tools to help students with time management and study skills.
  - ○ Collaboration and AI: The 2025 curriculum introduces collaboration using AI-driven productivity tools, giving students exposure to AI-enhanced teamwork that was absent in 2020.
- Unit 4: Productivity Tools
  - ○ AI Integration: A major shift from 2020, the 2025 curriculum incorporates AI features such as chatbots, prompt engineering, and AI-assisted document creation in word processing, spreadsheets, and presentations.
  - ○ New Ethical Focus: The 2025 curriculum emphasizes ethical use of AI in productivity tools, discussing how AI impacts workflows and careers, which was not covered in 2020.
  - ○ Advanced Tools: In 2025, students explore AI tools that automate tasks like formatting, grammar checking, and data analysis—features absent in the 2020 version.
- Unit 5: Block-Based Programming
  - ○ Transition to Text-Based Programming: The 2025 version includes a new section on transitioning from block-based to text-based programming, helping students advance their skills, which the 2020 curriculum did not offer.
  - ○ Advanced Problem-Solving: The 2025 curriculum introduces more complex problem-solving activities using AI and programming, enhancing the depth of student engagement.
  - ○ Debugging and Ethical AI: New in 2025 is a focus on debugging code generated by AI, with an emphasis on the ethical implications of using AI in programming tasks, not covered in 2020.
- Unit 6: Cybersecurity
  - ○ AI in Cybersecurity: The 2025 curriculum includes AI's role in cybersecurity for the first time, teaching students how AI can assist in threat detection and anomaly recognition.

- - Adversarial Thinking: The concept of adversarial thinking has been introduced in 2025, focusing on how to anticipate and mitigate cyber threats, which was not covered in 2020.
    - Expanded Cyber Threats: While the 2020 version touched on cyber threats, the 2025 curriculum dives deeper into the CIA Triad (Confidentiality, Integrity, Availability) and real-world applications of these concepts.
  - Unit 7: Data, Computers, and Society
    - Data Science and AI: The 2025 curriculum now includes sections on AI in data science, particularly in data collection, analysis, and interpretation, which was missing from 2020.
    - Binary Systems and ASCII: The 2025 version delves deeper into ASCII and binary systems, enhancing students' understanding of how data is represented and processed, which was only briefly covered in 2020.
    - Advanced Data Representation: There's a new focus on data cleaning and data-driven decision-making in the 2025 curriculum, allowing students to apply these skills in real-world contexts.
  - Unit 8: App Design
    - AI in App Development: The 2025 curriculum introduces AI tools for app development, such as natural language processing and user interaction enhancements, absent in 2020.
    - User-Centered Design: The 2025 version places a stronger emphasis on user-centered design and prototyping, encouraging students to test and revise apps based on user feedback—expanding on the simpler design process taught in 2020.
    - Ethics in AI: The 2025 curriculum includes ethical considerations for using AI in app design, particularly around user data and AI's role in enhancing user experience, which wasn't addressed in 2020.
  - Unit 9: Multimedia
    - AI in Graphic Design: In 2025, there is a new section on using AI tools in multimedia projects, such as automated design suggestions and image editing, which were not part of the 2020 curriculum.
    - Web Development Enhancements: The 2025 curriculum expands on web development, focusing on drag-and-drop website builders and the integration of multimedia elements into functional, aesthetically pleasing websites.
    - Ethical Considerations: The 2025 version introduces discussions about the ethical and legal issues surrounding digital content creation, including copyright and fair use, which were less emphasized in 2020.

2025 Exploring Careers
- Document in new curriculum format.
- Names of career clusters modified to reflect new Advance CTE Career Cluster Framework.

2025 Exploring Computer Science
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Unit 1: Orientation and Ongoing Skills

- ○ Expanded Safety Procedures: The 2025 curriculum places a stronger emphasis on safety protocols and digital ethics, particularly focusing on AI and its role in ethical digital citizenship, which was less prominent in 2020.
  - ○ New Online Learning Integration: The 2025 version includes more comprehensive use of online learning management systems, encouraging collaboration and peer interaction through platforms that are better suited for hybrid learning environments. The 2020 version was less focused on this.
  - ○ Public Speaking and 21st Century Skills: In 2025, there is an increased emphasis on public speaking and communication skills, integrated into ongoing assignments to better prepare students for real-world applications.
- Unit 2: Human-Computer Interaction
  - ○ Enhanced Focus on AI: The 2025 curriculum adds more depth to AI's role in human-computer interaction, including discussions on machine learning and voice-activated systems. The 2020 version introduced human-computer interaction but without this expanded focus on AI.
  - ○ Internet of Things (IoT): The 2025 curriculum introduces the IoT, providing students with more practical knowledge of how connected devices work, which was not part of the 2020 curriculum.
  - ○ Cloud Computing: In 2025, there is an expanded section on cloud computing and its implications for data storage, security, and ethics, which is a significant enhancement over the brief mention in 2020.
- Unit 3: Problem Solving
  - ○ Advanced Algorithmic Problem Solving: The 2025 curriculum emphasizes using AI tools to support problem-solving, including AI-assisted algorithms not mentioned in 2020.
  - ○ Introduction of Binary and Sorting Algorithms: Both versions cover binary numbers and sorting algorithms, but the 2025 curriculum provides deeper engagement with real-world applications of these concepts, including AI-assisted sorting.
  - ○ Expanded Focus on Minimum Spanning Trees: The 2025 version delves deeper into the real-world applications of minimum spanning trees for networks, making the topic more practical and aligned with modern technology than the 2020 version.
- Unit 4: Introduction to Programming
  - ○ AI and Programming Integration: The 2025 version introduces the concept of using AI to debug code and enhance algorithm development, whereas the 2020 version focuses on basic programming principles.
  - ○ Text-Based Programming: The 2025 curriculum shifts toward more advanced text-based programming, including languages like Python, while also integrating event-driven programming, which was less of a focus in 2020.
  - ○ Expanded Error Detection: There is a new focus on using AI tools to support error detection and debugging, providing students with modern tools for programming compared to the manual debugging processes emphasized in 2020.
- Unit 5: Data Science and Computing
  - ○ New Focus on Big Data: The 2025 version expands its coverage of big data, teaching students how to analyze large datasets using modern data science techniques and AI-driven data analysis tools. This is a new addition compared to the 2020 version, which focused more on traditional data representation.

- AI in Data Analysis: In 2025, there is a heavier emphasis on how AI supports data science, including data cleaning, interpretation, and drawing conclusions. This was not present in the 2020 curriculum.
- Ethics and Bias in Data: The 2025 version includes a new section on ethics and bias in data analysis, encouraging students to think critically about how data can be manipulated. This was only briefly mentioned in the 2020 version.
- Unit 6: Artificial Intelligence (AI)
  - New Terminology and Concepts: The 2025 curriculum includes a more detailed exploration of AI concepts, including prompt engineering, machine learning, and generative AI, which were not as developed in the 2020 version.
  - AI Tools: There is now a focus on exploring AI tools in different sectors, such as healthcare, agriculture, and finance, to help students understand how AI is changing various industries. The 2020 curriculum lacked this industry-specific perspective.
  - Expanded AI Ethics: In 2025, students will be introduced to the ethical implications of AI, particularly around issues like algorithmic bias and data privacy, which were less detailed in 2020.
- Unit 7: Physical Computing
  - Microcontroller Focus: The 2025 curriculum now offers expanded content on using microcontrollers, such as Arduino and Raspberry Pi, to solve real-world problems. This was briefly covered in 2020 but is now more central to the unit.
  - AI and Robotics: The integration of AI with robotics and physical computing will be more pronounced in 2025, providing students with hands-on experience in building smart robots that use sensors and AI for decision-making.
  - E-Textiles and Networking: The 2025 curriculum adds new sections on e-textiles and networking, allowing students to explore wearable technology and network security as part of physical computing. This was not present in the 2020 curriculum.
- Unit 8: Cybersecurity
  - AI in Cybersecurity: The 2025 curriculum introduces AI-enhanced security systems and machine learning for threat detection, a major upgrade from the 2020 focus on basic cybersecurity principles.
  - New Focus on Adversarial Thinking: The 2025 version includes adversarial thinking, teaching students to anticipate and defend against cyber threats, a concept that was less emphasized in 2020.
  - Ethics in Cybersecurity: Both versions discuss the importance of ethics in cybersecurity, but the 2025 curriculum places more emphasis on social engineering, ransomware, and ethical hacking.

2025 Family and Consumer Science
2025 Family Dynamics 20.0121 (0.5 Credit)
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- Unit 1 – no change
- Unit 2 – expanded upon Competency 4 to include examples of physical and aesthetic components
- Unit 3 – no change
- Unit 4 – no change
- Unit 5 – changed name of unit from "Discovering Career Opportunities" to "Careers Related to Family Dynamics"

- Unit 5 – objective added regarding the importance of developing 21st-century and soft skills

2025 Nutrition and Wellness 20.0130 (0.5 Credit)
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- Unit 1 – wording change in objective to better address competency
- Unit 2 – a safety note added as a reminder of written safety test to be completed prior to working in the lab
- Unit 2 – a note added as a reminder that content from this unit is reviewed throughout the year
- Unit 2 – objective removed from Competency 4 and moved to Unit 3 to support addition of food production content
- Unit 3 – changed name of unit from "Science of Food" to "Science of Food Production"; new competency added to address food production and involvement of government agencies
- Unit 4 – new objective added to Competency 2 to address effects of social media on self-image
- Unit 5 – changed name of unit from "Careers in Nutrition and Wellness" to "Careers Related to Nutrition and Wellness"
- Unit 5 – objective added regarding the importance of developing 21-century and soft skills

2025 Child Development 20.0122 (0.5 Credit)
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- All units – "early childhood" is used in place of "child care" (ex: early childhood facility instead of child care facility) according to industry recommendations
- Unit 1 – no change
- Unit 2 – added new competency to address pre-pregnancy decisions
- Unit 3 – objective added to Competency 5 regarding resources for parents of exceptional children
- Unit 3 – wording change throughout from "disabled child" to "exceptional child" according to industry recommendations
- Unit 4 – added Enrichment Experience to end of unit exploring Adverse Childhood Experiences and their impact on one's overall health throughout life
- Unit 5 – changed name of unit from "Career Opportunities in Child Development" to "Careers Related to Child Development"
- Unit 5 – objective added regarding the importance of developing 21st-century and soft skills

2025 Resource Management 20.0129 (0.5 Credit)
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- Unit 1 – no change
- Unit 2 -competency taken from Unit 2 and moved to Unit 4; reworded as identity theft
- Unit 3 – no change
- Unit 4 – objective added to Competency 1 to address the impact of consumer decisions on the environment
- Unit 5 – changed name of unit from "Careers in Resource Management" to "Careers Related to Resource Management"
- Unit 5 - objective added regarding the importance of developing 21st-century and soft skills

2025 Fire Science
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Unit 1 – Competencies added that address taking the safety test for Fire Science as well as researching SkillsUSA, the CTSO for this course.
- Unit 2 – Unit change from "History and Mission of the Fire Service" to "Physical Ability Test for the Fire Service" (previously Unit 21 in 2020 curriculum and now operates as a formative assessment throughout the year instead of cumulative)
- Unit 3 – Unit change from "Organization of the Fire Service" to "Organization and History of the Fire Service"; content combined from Unit 2 and 3 of the 2020 curriculum
- Unit 4 – Unit change from "Functions of Fire Companies" to "Firefighter Safety, Personal Protective Equipment, and Self-Contained Breathing Apparatus"; content combined from Unit 5, 8, and 13 of the 2020 curriculum
- Unit 5 – New unit created called "Fire Service Communications" to address the Communications Center operations in the fire service.
- Unit 6 – Introduction to the Incident Command System (ICS) competencies and objectives expanded upon to include key components, standard operating procedures, divisions of labor, unity of command, jurisdictional boundaries, and framework of the Federal Emergency Management Agency (FEMA) and National Incident Management System (NIMS).
- Unit 7 – Unit change from "Pre-Incident Plans" to "Building Construction and Pre-Incident Plans"; content expanded to include the various types of building materials, construction types, and building components.
- New hour total is 140 hours for Units 1-7
- Unit 8 – Unit change from "Personal Protective Equipment" to "Response and Size-Up"; content from Unit 8 of 2020 curriculum moved to Unit 4 of new curriculum
- Unit 9 – Unit change from "Hoses and Nozzles" to "Introduction to Tools and Equipment on the Apparatus"; content from Unit 9 of 2020 curriculum moved to Unit 10 of new curriculum
- Unit 10 – Unit change from "Introduction to Tools and Equipment on the Apparatus" to "Water Supply, Hoses, and Nozzles"; content from two different units of the 2020 curriculum were combined
- Unit 11 – Unit change from "Introduction to Ladders" to "Fire Behavior and Ventilation"; content from Unit 11 of 2020 curriculum moved to Unit 16 of new curriculum. Content of new Unit 11 was expanded upon to include the types of ventilation techniques, how ventilation operations affect flow paths, and the different types of ventilation.
- Unit 12 – Unit change from "Introduction to Vehicle Extrication" to "Portable Fire Extinguishers and Fire Suppression"; content from Unit 12 of old curriculum moved to Unit 17 of new curriculum. Content of new Unit 12 was expanded upon to include the different types of extinguishing agents, the basic steps of Portable Fire Extinguisher Operation (PASS), fire ground operations, and the salvage and overhaul of a fire scene.
- New hour total is 140 hours for Units 8-12
- Unit 13 – Unit change from "Firefighter Safety" to "Forcible Entry"; content from Unit 13 of the 2020 curriculum moved to Unit 4 of the new curriculum. Content of new Unit 13 addresses forcible entry tools, door and window constructions, types of locks, and breaching walls and floors.

- Unit 14 – Unit change from "Building Materials and Construction" to "Search and Rescue"; content from Unit 14 of the 2020 curriculum moved to Unit 7 of the new curriculum. Content of new Unit 14 addresses primary and secondary searches, search and rescue techniques, carries and drags, and search and rescue operations within the fire suppression team.
- Unit 14 – Enrichment Experience added to develop an Incident Action Plan (IAP), establishing command and performing a size-up.
- Unit 15 – Unit change from "Fire Behavior" to "Firefighter Survival"; content from Unit 15 of the 2020 curriculum moved to Unit 11 of the new curriculum. Content of new Unit 15 addresses rules of engagement, personnel accountability systems, emergency communication procedures, using rapid intervention packs (RIT pack), air management, rehabilitation on the fire scene, and critical incident stress management.
- Unit 16 – Unit change from "Introduction to Portable Fire Extinguishers" to "Introduction to Ladders"; content from Unit 16 of the 2020 curriculum moved to Unit 12 of the new curriculum. Content from Unit 11 of the 2020 curriculum was moved to Unit 16 with no changes.
- Unit 17 – Unit change from "Water Supply" to "Vehicle Fires and Vehicle Extrication"; content from Unit 17 of the 2020 curriculum moved to Unit 10 of the new curriculum. Content from Unit 12 of the 2020 curriculum was moved to Unit 17 with an added competency addressing how to suppress a vehicle fire for the various types of motor vehicles.
- Unit 17 – Enrichment Experience added to perform a vehicle extrication using specific tools and techniques.
- New hour total is 140 hours for Units 13-17
- Unit 18 – Unit change from "Awareness of Hazardous Materials" to "Introduction to Ropes"; content from Unit 19 of the 2020 curriculum was moved to Unit 18 with no changes.
- Unit 19 – Unit change from "Introduction to Ropes" to "Awareness of Hazardous Materials"
- Unit 20 – Unit change from "Fire Prevention Programs" to "CPR and Emergency Medical Care," using some content from Unit 23 of the 2020 curriculum as well as introducing new and updated content about providing first aid treatment.
- Unit 21 – Unit change from "Physical Ability Test for the Fire Service" to "Fire Prevention Programs"; content from Unit 21 of the 2020 curriculum moved to Unit 2 of the new curriculum. Content from Unit 20 of the 2020 curriculum was moved to Unit 21 with the addition of an enrichment experience.
- Unit 21 – Enrichment Experience added to develop a fire prevention program or public education program for a community business.
- Unit 22 – Enrichment Experience added to establish and develop a School Emergency Response Team (SERT).
- Unit 24 from 2020 curriculum "Introduction to Emergency Medical Responders/Technicians" deleted in new curriculum. Emergency Medical Services (EMS) is now separate from Fire Science as its' own curriculum.
- New hour total is 140 hours for Units 18-22
- New hour total for all four credits is 540 hours.

2025 Forestry
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.

- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Unit 1: Exploring the World of Forestry- Expanded to include more comprehensive coverage.
- Unit 2: Leadership Development / The National FFA Organization and Career Development- Now includes detailed exploration of the National FFA Organization and career development opportunities, emphasizing leadership.
- Unit 3: Forest Safety- Content remains largely consistent, focusing on essential safety practices.
- Unit 4: Tree Growth and Stand Development- Expanded to include additional material on the processes of tree growth.
- Unit 5: Dendrology- Expanded content to provide a more in-depth study of trees and their classification.
- Unit 6: Forest Traversing and Mapping- Minor adjustments, maintaining focus on surveying and mapping techniques.
- Unit 7: Legal Land Descriptions- Expanded to provide a more thorough understanding of legal land descriptions.
- Unit 8: Tree and Log Measurements- More extensive coverage of measurement techniques.
- Unit 9: Introduction to Timber Cruising- Expanded to include more detailed procedures and practical applications.
- Unit 10: Identifying Forests and Forest Products- Expanded content to cover identification in greater depth.
- Unit 11: Employability Skills and Leadership Development / Forestry Careers and FFA Leadership- Enhanced focus on employability and leadership, with a significant expansion.
- Unit 12: Forest Management Practice- Slight reduction but maintains core principles.
- Unit 13: Advanced Timber Cruising- Maintains a focus on advanced techniques with minor adjustments.
- Unit 14: Timber Marketing- Expanded to provide more comprehensive coverage of marketing strategies.
- Unit 15: Timber Harvesting- Consistent focus on harvesting methods.
- Unit 16: Reforestation- Expanded to include more detailed reforestation techniques.
- Unit 17: Forest Fire Management- Slight reduction in hours.
- Unit 18: Forest Insects and Diseases- Significant reduction in content coverage.
- Unit 19: Immersion into FFA and Supervised Agriculture Experience (SAE)- This is a new addition focusing on hands-on experience through FFA and SAE.

2025 Horticulture
- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Unit 1: Emphasizes a broader introduction to the horticulture industry, including a global perspective and the development of agricultural sciences and technologies. Also includes more detailed objectives related to career opportunities and safety practices.
- Unit 2: This is a new unit in the 2025 curriculum. It focuses on the integral relationship between the FFA and agricultural education, historical events, types of membership, and the promotion of leadership and career success through FFA activities.

- Unit 3: Expanded to 50 hours, this unit now includes detailed examination and application of plant sciences with specific objectives and competencies.
- Unit 4: This unit is more focused on the different types of plant growth substrates (media) and their uses in horticulture.
- Unit 5: Continues to cover structures, but with updated competencies and objectives related to current industry practices.
- Unit 6: The unit is more streamlined with 20 hours allocated, focusing on specific propagation methods and their practical applications.
- Unit 7: The updated curriculum allocates more hours (40) to pest management, with detailed learning objectives focusing on modern techniques and practices.
- Unit 8: Combines the production of greenhouse crops, vegetables, and fruits into a comprehensive 60-hour unit with detailed objectives.
- Unit 9: A new unit focused specifically on herb production.
- Unit 10: Emphasizes leadership and career preparation through the FFA, with 30 hours dedicated to this topic.
- Unit 11: Expanded to 40 hours, with detailed competencies related to identifying plants in nursery and landscape settings.
- Unit 12: A 20-hour unit dedicated to marketing strategies and business procedures in horticulture.
- Unit 13: Increased focus with 50 hours allocated to floral design, covering both basic and advanced techniques.
- Unit 14: This unit continues with a strong focus, allocating 40 hours to cover updated practices in sustainable design and construction.
- Unit 15: Maintained at 30 hours, this unit updates techniques and best practices for turfgrass management.
- Unit 16: New focus on sustainability and urban horticultural practices, reflecting contemporary trends.
- Unit 17: A new unit integrating FFA activities with hands-on learning experiences through SAE.

2025 Information Technology Core
- Document in new curriculum format.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Competencies and objectives reflect current standards and industry recommendations.
- Unit 1: Changed unit title to "Orientation to Information Technology"
  - Expanded focus on digital citizenship, online safety, and appropriate use best practices
  - Added emphasis on exploring IT careers and communicating effectively using technology and introduced concepts of computing basics and file system management
- Unit 2: Hardware
  - Added exploration of notational systems (binary, hexadecimal, decimal, octal) and expanded coverage of internal computer components and system elements
  - Included more detailed examination of peripherals and device I/O interfaces and added focus on High-Performance Computing (HPC) systems
- Unit 3: Software
  - Expanded coverage of operating systems, including virtual environments

- o Added emphasis on artificial intelligence applications and emerging technologies and included a more detailed exploration of software management and file management practices
- Unit 4: Shifted the unit on "Databases" up one unit
  - o Expanded coverage of database concepts, including big data
  - o Added emphasis on data-driven business decisions and data analytics and included more detailed exploration of database structures and backup procedures
- Unit 5: Changed old unit 6's title to "Programming Concepts" and moved it up one unit.
  - o New unit focusing on programming languages, data types, and logic structures
  - o Introduced concepts of Agile Scrum methodology
- Unit 6: Moved old unit 4 on "Networking" down two units.
  - o Expanded coverage of network design and infrastructure
  - o Added emphasis on cloud computing concepts and included more detailed exploration of internet technologies and troubleshooting using more advanced networking topics like OSI and TCP/IP models
  - o The new Unit 6 includes:
    - Basic network connectivity concepts
    - Network architectures and topologies
    - Network infrastructure components
    - IP addressing and protocols
    - Wired and wireless networking
- Unit 7: Cybersecurity
  - o Expanded coverage of security models and device security
  - o Added emphasis on encryption, password security, and wireless network security and included a more detailed exploration of cybersecurity issues and solutions

2025 Interactive Media Technology
- Document in new curriculum format.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Competencies and objectives reflect current standards and industry recommendations.
- Name of pathway changed from Simulation Animation Design (SAD).
- Unit 1: Introduction, Safety, and Orientation
  - o Expanded Focus on Interactive Media: In 2025, the introduction focuses more on interactive media technologies and UI/UX design, whereas the 2018 version was centered around general digital media safety and orientation.
  - o Software Updates: The 2025 curriculum includes updated tools like Unreal Engine, Unity, and Blender, compared to the 2018 focus on simpler tools such as Photoshop and Audacity.
  - o New Safety Protocols: The 2025 version introduces version control (Git, SVN) and cybersecurity basics, which were not covered in 2018.
- Unit 2: Career Exploration and Industry Awareness
  - o Broader Industry Awareness: In 2025, there is a greater emphasis on exploring roles within game design, interactive media, and multimedia storytelling. The 2018 curriculum focused on digital media roles like photography, audio, and video production.

- o New Focus on Industry Trends: The 2025 version includes an analysis of industry trends like virtual reality (VR) and augmented reality (AR), which were not discussed in 2018.
- Unit 3: Ethics and Responsibility in Interactive Media Design
  - o Introduction of AI Ethics: The 2025 version introduces AI ethics and guidelines for using AI in media creation, which were not present in 2018.
  - o Expanded Discussions on Inclusivity: The 2025 curriculum focuses more on inclusive design and accessibility, while the 2018 version discussed copyright and intellectual property ethics.
- Unit 4: The Art of Pre-Production
  - o Advanced Prototyping: The 2025 curriculum introduces rapid prototyping for interactive experiences, while the 2018 version focuses on basic storyboarding and wireframing for media production.
  - o Narrative Techniques: The 2025 version includes nonlinear storytelling and character development in interactive media, whereas the 2018 curriculum was more focused on static narrative design.
- Unit 5: UI/UX and Accessibility
  - o New Focus on User Experience: The 2025 curriculum adds a comprehensive UI/UX unit that covers design principles, user feedback, and accessibility standards, which were only briefly mentioned in 2018.
  - o Hands-On Mockups: In 2025, students create wireframes and mockups for user interfaces, which wasn't a prominent task in the 2018 curriculum.
- Unit 6: Portfolio Foundations and Capstone Planning
  - o Capstone Project: The 2025 version introduces capstone planning and project management tools like Trello for collaborative work, a step from the 2018 focus on portfolio preparation with more straightforward project showcases.
  - o Digital Portfolios: Both versions emphasize portfolio development, but 2025 showcases interactive media skills more than the digital media project compilation 2018.
- Unit 7: Game Mechanics (Interactive Media Architecture)
  - o New Unit: The 2025 version introduces game mechanics, including architecture and design in interactive media, which was not present in 2018.
  - o Game Development Tools: The 2025 curriculum emphasizes using 3D game engines like Unity to create interactive experiences, which was not covered in the 2018 version.
- Unit 8: Creating and Importing Original Assets (3D Game Engine)
  - o Expanded 3D Asset Creation: The 2025 curriculum has a dedicated unit for creating 3D assets and importing them into game engines, whereas the 2018 curriculum focused on more straightforward photo editing and audio production techniques.
- Unit 9: Environments and Level Design
  - o New Focus on Level Design: In 2025, students explore environment and level design for interactive experiences, a concept not found in the 2018 curriculum, which focused more on motion graphics and animation.
- Unit 10: UI/UX Design for Interactive Experiences
  - o Expanded UI/UX Unit: The 2025 version introduces UI/UX design for interactive experiences, integrating user-centered design principles not covered in the 2018 curriculum.
- Unit 11: Portfolio Refinement and Capstone Proposal

- o Capstone Integration: The 2025 curriculum introduces more advanced portfolio refinement and capstone proposal development, compared to the 2018 curriculum, which ended with basic portfolio preparation without a final capstone component.
- Unit 12: Localization and Marketing for Interactive Experiences
  - o New Marketing Unit: The 2025 curriculum includes localization and marketing strategies for interactive media, which was not part of the 2018 version's focus on digital media production and design.
- Unit 13: Quality Assurance, Debugging, and Technical Considerations
  - o New Unit on Debugging: The 2025 curriculum focuses on quality assurance and debugging interactive media projects, a new addition not present in the 2018 curriculum.
- Unit 14: User Testing and Evaluation
  - o Expanded Testing: In 2025, students conduct user testing and feedback incorporation, whereas the 2018 curriculum focused more on client review and redesigning digital projects.
- Unit 15: Basics of Multiplayer (Multiplayer Co-op)
  - o New Multiplayer Unit: The 2025 curriculum introduces multiplayer design for cooperative games, a completely new addition that was not present in the 2018 version.
- Unit 16-22: Capstone Project and Showcase
  - o Capstone Development: The 2025 version dedicates multiple units to the development of a capstone project, divided into phases for planning, development, and showcase, which is a major addition compared to the 2018 version's simpler final project presentation.

2025 Meat Science and Muscle Biology

- Document in new curriculum format.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Competencies and objectives reflect current standards and industry recommendations.
- Curriculum name changed from Food Products (Meats) to Meat Science and Muscle Biology.
- Unit 1: Orientation to Meat Science and Muscle Biology
  - o Introduces students to the updated field, focusing on the foundational knowledge necessary for careers in meat science.
  - o Emphasizes safety, sanitation, and equipment maintenance, reflecting a more comprehensive approach.
- Unit 2: The National FFA Organization and Career Development
  - o New emphasis on integrating FFA activities and career development, highlighting the importance of leadership and personal growth in agricultural education.
- Unit 3: Safety, Sanitation, Equipment, and Facility Maintenance
  - o Focus on federal regulations related to meat processing, ensuring students understand the importance of maintaining safety and sanitation in facilities.
- Unit 4: Principles of Livestock Slaughter
  - o New emphasis on food safety during processing and detailed exploration of slaughter techniques.
- Unit 5: Packaging, Marketing, and Retail Sales
  - o Updates include advanced techniques in packaging and labeling, with a focus on market trends and consumer behavior.

- Unit 6: Special Topics in Meat Science and Muscle Biology
  - Incorporates emerging technologies and global economic factors, ensuring students are aware of the latest industry trends.
- Unit 7: Meat Science and Muscle Biology Careers and FFA Leadership
  - New unit focusing on career development and active participation in FFA, including resume building and mock interviews.
- Unit 8: Identification and Fabrication of Carcass and Box Beef
  - Comprehensive coverage of beef cuts, with updated safety protocols and market price discussions.
- Unit 9: Identification and Fabrication of Carcass and Box pork.
  - Similar updates as beef fabrication, with additional focus on variety cuts.
- Unit 10: Identification and Fabrication of Carcass Lamb and Goat.
  - Expands on previous units with detailed instructions on lamb and goat fabrication.
- Unit 11: Identification and Fabrication of Poultry and Fish
  - New unit covering poultry and fish, including retail processing techniques.
- Unit 12: Identification and Fabrication of Wild Game.
  - Introduces wild game processing, a new area of focus in the curriculum.
- Unit 13: Automation of the Modern Meat Industry
  - Focuses on the role of automation and technology in meat processing, reflecting industry advancements.
- Unit 14: Quality and Yield Grading
  - Emphasizes the importance of grading systems in the meat industry, with practical applications.
- Unit 15: Curing, Smoking, and Sausage Making
  - Updated to include more detailed processes for curing and smoking, with an emphasis on sausage making.
- Unit 16: Special Topics in Meat Science and Muscle Biology II
  - Continuation of special topics, with an emphasis on current trends and technologies.
- Unit 17: Immersion into FFA and Supervised Agriculture Experience (SAE)
  - New unit emphasizing hands-on experience through SAE projects, linking classroom learning to real-world applications.

2025 Welding
- Document in new curriculum format.
- All items listed below as "Moved," "Created," or "Revised" in any way, or "Combined" were implemented upon the attending industry representatives' requests.
- Competencies and objectives reflect current standards and industry recommendations.
- Unit 1: Renamed to "Build Your Future in Construction" includes expanded work-based learning section and introduction to student organizations which was taken from the old Unit 2.
- Unit 2: Moved old Unit 5 to this unit.
- Unit 3: Moved old Unit 6 to this unit. Added competencies on angles, geometric shapes, area, and volume.
- Unit 4: Separated Unit 7 into two separate units 4 "Hand Tools" and 5 "Power Tools." Added focus on measurement and layout tools.
- Unit 5: Now a separate unit focusing on the use and maintenance of power tools.

- Unit 6: Moved old Unit 8 to this unit. Enhanced with an "Enrichment" section to include interpreting symbols and detail drawings taken from old objectives 4 and 5.
- Unit 7: Moved old Unit 4 to this unit. Emphasizes speaking skills as an effective form of communication in on-the-job situations.
- Unit 8: Moved old Unit 3 to this unit. Expanded to include critical thinking and leadership skills.
- Unit 9: Added wording related to choosing appropriate equipment and safety procedures.
- Unit 10: More detailed on equipment setup, safety, and cutting techniques.
- Unit 11: The unit remains largely the same, but there is a stronger emphasis on safety and the ongoing nature of the unit throughout the year.
- Unit 12: The unit remains largely the same but emphasizes the American Welding Society (AWS) system.
- Unit 13: Expanded to include more detailed techniques and practices, such as mastering the skill of striking an arc, responding to arc blow, and producing fillet welds.
- Unit 14: The unit remains largely the same but removed the term vocational and changed the industrial setting to "industry."
- Unit 15: Changed wording regarding cleaning procedures to focus more on metals and the properties of types of carbon and stainless steel.
- Unit 16: Added additional wording related to controlling weldment distortion, thermal expansion, and welding codes.
- Unit 17: Expanded to include more detailed enrichment activities related to interpreting welding symbols and drawing basic welding drawings.
- Unit 18: Unchanged
- Unit 19: Moved proper equipment setup to the first objective and changed CAC-A to "A-CAC" throughout the unit.
- Unit 20-22: Unchanged
- Unit 23: Removed references to copper, nickel, magnesium, titanium, and stainless steel and changed various to "1F,2F, …" regarding welding positions.