OFFICE OF CHIEF ACADEMIC OFFICER
Summary of State Board of Education Agenda Items
November 8, 2018

OFFICE OF CAREER AND TECHNICAL EDUCATION

02.   Action: Begin the Administrative Procedures Act process: To revise selected Mississippi Secondary Curriculum Frameworks in Career and Technical Education [Goal 2 – MBE Strategic Plan]

Executive Summary

The Mississippi Secondary Curriculum Frameworks in Career and Technical Education have a 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 2019-2020 school year.

The following secondary curriculum frameworks are recommended for approval:

1.   Construction Core
2.   Electrical
3.   Carpentry
4.   Welding
5.   Cyber Foundations I
6.   Cyber Foundations II
7.   STEM Applications

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.

This item references Goal 2 of the *Mississippi Board of Education 2016-2020 Strategic Plan.*

Recommendation: Approval

Back-up material attached

The back-up for Tab 02 is seven documents so it is on the Career and Technical Education (CTE) web page for your review. Below is the link to the CTE back-up materials. The November 2018 CTE Board Items are listed under Links on the right-hand side of the page.

"November 2018 CTE Board Items" hyperlink is:

http://www.mdek12.org/CTE#

Summary of Secondary Curricula Changes for
Career & Technical Education

2019 Construction Core
- Placed document in new curriculum format
- Adjusted competencies and objectives to reflect current standards and industry recommendations
- Created new Units 2, 3, and 4
- Moved Units within document to create better skill progression alignment
- Changed Student Competency Profile to reflect unit moves/updates
- Moved resources and scenarios to Teacher Resource Document
- Edited appendices to reflect new standards and industry alignment

2019 Electrical
- Placed document in new curriculum format
- Moved scenarios, suggested teaching strategies, and suggested assessment strategies to Teacher Resource Document
- Added "commercial" to anywhere that "residential" occurred
- Changed titles of Units 1, 2, 3, 4, and 7
- Changed format and wording of Course Outlines page
- Aligned curriculum to most recent version of International Society for Technology in Education (ISTE) standards and the MCCR standards
- Changed competency 1 in Unit 6 and added detailed list to Unit 6.1.a.

2019 Carpentry
- Placed document in new curriculum format
- Adjusted competencies and objectives to reflect current standards and industry recommendations
- Created new Unit 9
- Changed Student Competency Profile to reflect unit moves/updates
- Moved resources and scenarios to Teacher Resource Document
- Edited appendices to reflect new standards and industry alignment

2019 Welding
- Placed document in new curriculum format
- Adjusted competencies and objectives to reflect current standards and industry recommendations
- Created new Units 2, 3, 4, 12, 13, and 21
- Moved Units within document to create better skill progression alignment

- Changed name of Units to reflect moves and/or changes (Units 10, 11)
- Rearranged some competencies to better reflect material and correct Unit
- Changed Student Competency Profile to reflect unit moves/updates
- Moved resources and scenarios to Teacher Resource Document
- Edited appendices to reflect new standards and industry alignment

2019 Cyber Foundations I
- ICT I and Technology Foundations replaced with this framework
- Placed document in new curriculum format
- Aligned new curriculum with 2018 Mississippi K-12 Computer Science Standards
- Added unit to address student organizations
- Reduced recommended time spent on keyboarding from 35 hours to 20 hours
- Recommended keyboarding be used as bell-ringer activity for entire course
- Incorporated 21st Century competencies into other units and reduced time from 15 to 5 hours
- Social media unit was incorporated into digital citizenship covered in Unit 1
- Reduced time spent on word processing from 30 hours to 15 hours
- Updated word processing competencies and objectives to reflect modern use of word processors and relevant uses for middle school students
- Reduced time spent on multimedia presentations from 30 hours to 10 hours and combined some competencies and objectives
- Added spreadsheets and financial literacy as a unit with a recommended 20 hours
- Added a unit on problem solving as an introduction to computer science – 10 hours
- Added a unit on web design covering HTML and CSS – 20 hours
- Added a unit on developing games and animations – 25 hours

2019 Cyber Foundations II
- ICT II replaced with this curriculum
- Placed document in new curriculum format
- Aligned new curriculum with 2018 Mississippi K-12 Computer Science Standards
- Added unit to address student organizations
- Added a unit for 21st Century Toolbox – 3 hours
- Reduced time spent on graphic design from 20 hours to 15 hours
- Removed financial literacy unit
- Removed spreadsheet applications unit
- Updated design application unit to focus on user experience design for mobile applications and increased recommended time from 15 hours to 30 hours
- Replaced lab management and networking unit with data and computers unit and increased time from 10 to 15 hours

- Added unit on data and society addressing privacy and data visualization – 10 hours
- Added a unit on physical computing which addresses microcontrollers – 30 hours

2019 STEM Applications
- Placed document in new curriculum format
- Aligned with Mississippi College- and Career-Readiness Standards for Science and Math
- Aligned with 21st Century Learning Framework, ISTE National Educational Technology Standards for Students, National Assessment of Educational Progress (NAEP) Technology and Engineering Literacy Framework
- Overhauled the curriculum, which was last published in 2011 to include four major, hands-on projects that integrate many units from the previous version
- Provided greater specificity and rigor at objective level to include integrated math, physical science, technology, engineering, safety, and 21st Century Skills
- Removed financial and economic literacy