

OFFICE OF CHIEF ACADEMIC OFFICER
Summary of State Board of Education Agenda Items
Consent Agenda
April 21, 2022

OFFICE OF CAREER AND TECHNICAL EDUCATION

C. Approval to revise selected Mississippi Secondary Curriculum Frameworks in Career and Technical Education

(Has cleared the Administrative Procedures Act process without public comments)

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 2022-2023 school year.

The following secondary curriculum frameworks are recommended for approval:

01. Collision Repair Technician—Paint
02. Computer Science and Engineering
03. Agricultural Leadership
04. Educator Preparation
05. Engineering
06. Information Technology
07. Law and Public Safety
08. Lodging, Hospitality, and Tourism

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

Recommendation: Approval

Back-up material attached

Summary of Secondary Curricula Changes for Career & Technical Education

2022 Collision Repair Technician – Paint

- This curriculum is revising the existing curriculum and splitting into two separate documents.
- This curriculum will use the existing course code from the 2015 Collision Repair Technician document.
- The Collision Repair Technician – Paint curriculum was directly aligned to the 2021 ASE Tasklist with written permission from ASE.
- The course outline and all unit names and content were changed to reflect the ASE Tasklist.
- The course outline hours were adjusted to reflect the needs of each ASE task within the perimeters of the state guidelines.
- The Industry Standards reflect the revisions made in the 2021 ASE Standards and Tasklist.

2022 Computer Science and Engineering

- Document placed in newest curriculum format.
- Curriculum combined with 2019 STEM Applications curriculum.
- Updated pathway description to reflect combined curricula.
- Updated course outline and hours to reflected combined curricula.
 - Unit 2: Project Design hours decreased from 25 to 20.
 - Added Unit 3: Exploring Newton’s Laws at 20 hours.
 - Unit 4: Introduction to Modeling and 3D Printing (formally Unit 3) decreased from 30 to 20 hours.
 - Unit 5: Coding (formally Unit 4) increased from 10 to 25 hours.
 - Unit 6: Introduction to Electronics (formally Unit 5) increased from 10 to 20 hours.
 - Unit 7: Introduction to Robotics & Microcontrollers (formally Unit 6) decreased from 45 to 25 hours.
- Unit 2: Project Design
 - Competency 2 changed to reflect NASA’s BEST Engineering Design Process.
 - Competency 3 added: Establish essential elements of the course portfolio.
- Unit 3: Exploring Newton’s Laws unit was added.
- Unit 4: Introduction to Modeling and 3D Printing
 - Moved from Unit 3 to Unit 4.
 - Competency 1 added: Review the importance of safety and the proper use of lab equipment when using 3D printers and associated supplies.
- Unit 5: Coding
 - Moved from Unit 4 to Unit 5.
- Unit 6: Introduction to Electronics
 - Moved from Unit 5 to Unit 6.
 - Competency 1 added: Review the importance of safety and the proper use of lab equipment when using electronics and associated tools.

- Competency 4 added with one objective: As part of the Electronics and Mechanics Project, create models to explore mechanics and its applications.
- Unit 7: Introduction to Robotics & Microcontrollers
 - Moved from Unit 6 to Unit 7.
 - Competency 1 added: Review the importance of safety and the proper use of lab equipment when using robots and microcontrollers.
 - Three Objectives for Competency 3 (formally Competency 2) were added, and the safety objective was moved to become Competency 1.
- Student Competency Profile was updated to reflect additional unit and changes to competencies and objectives.
- Mapping to various standards was updated to reflect merger of 2019 STEM Applications curriculum.

2022 Agricultural Leadership

- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- New course name.
- Created new course from existing enhancement course (Agricultural Leadership and Personal Development) and moved into the Diversified Agriculture pathway.
- Unit 1: Pulled information from Unit 1 (Introduction to Leadership). Removed FFA information.
- Unit 2: Communication information modified from Unit 4 (Communication Skills) in previous document.
- Unit 3: New unit focusing on presenting in a professional setting and modified from Unit 5 (Public Speaking and Parliamentary Procedure) in previous document.
- Unit 4: New unit on social media.
- Unit 5: Modified from Unit 7 (Interpersonal Relationships and Conflict Management) in previous document.
- Unit 6: Unit stayed the same from previous document.
- Unit 7: Combined FFA material in previous Unit 1 (Introduction to Leadership) and combined with previous Unit 3 (Experiential Learning).

2022 Educator Preparation (formerly Teacher Academy)

- Curriculum name changed from Teacher Academy I and II to Educator Preparation I and II.
- Four One-Carnegie unit course names changed to Foundations of an Educator, Practices of an Educator, Applications.
- Document placed in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- Course hours increased to 280 for Year 1 and Year 2 for a total of 560 hours.
- Unit 1 title changed to Program Orientation, competencies and objectives updated.

- Unit 2 changed to History and Trends in American Education, competencies and objectives updated
- Unit 3 competencies and objectives updated.
- Unit 4 changed to Diverse Learners, competencies and objectives updated.
- Unit 5 changed to Learning Environments, competencies and objectives updated.
- Unit 6 changed to Career and Professional Development, competencies and objectives updated.
- Unit 7 changed to Instructional Planning, competencies and objectives updated.
- Unit 8 introduces a new unit named Instructional Technology.
- Unit 9 Assessment Strategies competencies and objectives updated.

2022 Engineering

- Merged Engineering Core and Engineering II into one document.
- Competencies and objectives reflect current standards and industry recommendations.
- Renamed the titles of the course descriptions for all four credits in option 1.
- Renamed the titles of the course descriptions for the credits in option 2.
- Reconstructed the wording of all the course descriptions in the document.
- Moved the Capstone Unit from the end of year two to the Unit 8 (second Unit in year two).
- Capstone Unit went from 10 hours to 70 hours.
- Unit 1 Orientation and Student Organizations: Engineering Careers was moved here.
- Unit 2 Ethics and Safety: Minor changes in the wording of the objectives.
- Unit 3 Engineering Design Process and Technical Writing: Moved technical writing from Unit 7 to merge with design process in Unit 3.
- Unit 4 Computer-aided Design: Merged all the drafting components to Unit 4.
- Unit 5 Modern Manufacturing Systems: Moved from second year Unit 10 to first year unit 5.
- Unit 6 Introduction to Mechanical Systems and Robotics: Moved up from Unit 5 to Unit 6 (last unit in year one).
- Unit 7 Safety Review: Formerly Unit 8.
- Unit 8 Capstone: Moved from Unit 15.
- Unit 9 Advanced Computer-aided Design: Number of hours taught went up significantly.
- Unit 10 Advanced Robotics: Moved from Unit 11. Number of hours taught went up significantly.
- Unit 11 Introduction to Electrical Systems: Introduction was added to the title, and number of hours taught decreased.
- Unit 12 Introduction to Fluid Power Systems: Introduction was added to the title, and number of hours taught decreased.
- Unit 13 Introduction to Thermal Systems: Introduction was added to the title, and number of hours taught decreased.

2022 Information Technology

- The changes in the Information Technology curriculum reflect the standards derived from the TestOut IT Fundamentals Pro certification and TestOut Network Pro certification.
- Certification skills throughout the curriculum were integrated along with the National Business Education Association standards for Information Technology to assist in student preparation for IT careers.
- Units added reflect the skills needed to prepare students for the certification tests.
- The course outline hours changed to reflect the time needed to prepare for the certification within the parameters of the state guidelines.

2022 Law and Public Safety

- The number of units decreased from 14 to 10.
- Unit 1 content standards were updated for each competency and an additional competency was added.
- Introduction to the Criminal Justice System replaced Career Expectations in Unit 2.
- Introduction to Law Enforcement replaced History of Criminal Law in Unit 3.
- Introduction to Forensics and Crime Scene Investigations replaced Law Enforcement Services in Unit 4.
- Careers in the Military replaced United States Court Services in Unit 5.
- Program Orientation replaced Corrections in Unit 6.
- Fire Protection replaced Specialized Services in Unit 7.
- Emergency Medical Services replaced School-to-Career Orientation in Unit 8.
- Emergency Management replaced Security and Protective Services in Unit 9.
- Introduction to Emergency Communications replaced Crime Scene Investigations in Unit 10.
- Unit 11 of the old curriculum is covered in Unit 8 of the new curriculum.
- Unit 12 of the old curriculum is covered in Unit 7 of the new curriculum.
- Unit 13 of the old curriculum is covered in Unit 9 of the new curriculum.
- Unit 14 of the old curriculum is covered in Unit 5 of the new curriculum.

2022 Lodging, Hospitality, and Tourism Management

- Document in new curriculum format.
- Competencies and objectives reflect current standards and industry recommendations.
- Deleted scenario from all units.
- Unit 1: Changed name to reflect unit content and revised and updated objectives.
- Unit 2: Changed name and updated objectives.
- Unit 3: Changed name, revised, and moved content from Unit 14.
- Unit 4: Changed name and revised and moved content from Unit 3.

- Unit 5: Changed name, revised, moved content from Unit 4, and added operation content.
- Unit 6: Changed name, revised, and moved content from Unit 7.
- Unit 7: ServSafe Food Handler – new unit.
- Unit 8: Event Management – new unit.
- Unit 9: Changed name, revised, and moved content from Unit 8.
- Unit 10: Technology – new unit.
- Unit 11: Changed name, revised, and moved content from Unit 9.
- Unit 12: Changed name, revised, and moved content from Unit 11.
- Unit 13: Changed name, revised, and moved content from Unit 12.
- Unit 14: Changed name, revised, and moved content from Unit 13.
- Unit 15: Changed name and revised.
- Unit 16: Changed name and revised.
- Deleted Unit 17.