



Mississippi Community College Board
Postsecondary Career and Technical Education
Program Guidelines
2020

SECTION 1: CAREER AND TECHNICAL PROGRAMS

Career and Technical Education (CTE) provides students with the academic and technical skills, knowledge, and training necessary to succeed in careers and to become lifelong learners. CTE prepares learners for the world of work by introducing them to workplace competencies and making academic content accessible to students by providing it in a hands-on context. Funding is provided through both federal and state sources.

According to a Bureau of Labor Statistics report, total job openings by 2020 for middle skills jobs will increase 34.9 percent nationwide (Lockard 4 and Wolf, 2012). Further, it is estimated more than 55 percent of the jobs in Mississippi will be middle-skill jobs. These are jobs requiring some education and training above a high school diploma, but not necessarily a four-year degree; however, educational attainment levels are not keeping pace with goals for this training group (associate degrees and postsecondary non-degree awards), which ultimately creates a labor market shortage for skilled workers.

A. Career and Technical Stackable Options

All CTE curriculum is designed in a stackable credential format with multiple exit points. The stackable credentials will be designed into a 15 semester hour college credit certificate, 30 semester hour career certificate, 45 semester hour technical certificate, and 60 semester hour Associates of Applied Science Degree.

Accelerated Integrated Transitions Career Pathway (MIBEST) *	15 credits max in a program of study
Business and Industry Flex Certificate**	15 credits in different program of study to meet the needs of business and industry for short term training for a specific skillset
College Credit Certificate***	15 credit hours in one program of study for short term training to enter the workforce
Career Certificate	30 credits minimum
Technical Certificate	Career Certificate Coursework + 15 credits minimum (total of 45 credits)
General Education Core Courses	Career Certificate Coursework + Technical Certificate Coursework + 15 academic general education credits minimum (total of 60 credits)
Total Semester Credit Hours for the Associate of Applied Science Degree	60 credits minimum hours earned as a compilation of Career, Technical, and Academic credit hours

*Accelerated Transitions Pathway
Mississippi Integrated Basic Education and Skills Training (MIBEST)

MIBEST is adult education and literacy, workforce preparation, AND career, technical or workforce training “each of sufficient intensity and quality, and based on the most rigorous research available, especially with respect to improving reading, writing, mathematics, and English proficiency of eligible individuals” that “occur simultaneously,” “use occupationally relevant instructional materials,” and are “organized to function cooperatively” with “a single set of learning outcomes” (34 CFR §463.37). MIBEST represents a wide spectrum of services to build foundational, employability, and occupational skills.

****Business and Industry Flex Program**

The primary concern of any new or expanding business is the quality of the existing workforce, especially in today’s technology-driven economy. Workers who can demonstrate mastery of rigorous skills and competencies are among the most appealing workers who not only emerge at the front of the employment line but who are also less likely to find themselves unemployed during economic downturns.

The Mississippi Community College Board will partner with the community colleges to offer the new business and industry (B & I) flex program. The initiative will allow business and industry to identify and select courses across different programs to ensure a specific skill set is achieved by potential employees. This flex approach ensures short term credit hours are aligned beyond standard program curricula.

*****College Credit Certificate**

The community colleges seek new and innovative paths to help address the workforce challenge. The community college board in partnership with the community colleges will help promote the new accelerated pathway option offering a 15 semester credit hour completion point culminating in a College Credit Certificate.

The College Credit Certificate is comprised of 15 semester credit hours classes that begin the sequence of a Career and Technical program.

The new College Credit Certificate will help Mississippians enter the workforce with portable certifications, increase employment and wage opportunities, positively impact our high school dropout and unemployment rates, reduce the middle-skills job gap, and enhance industry recruitment efforts.

B. ENTRY REQUIREMENTS

Each college establishes its own entry requirements for postsecondary CTE Programs. Admissions into Career and Technical Programs:

1. The completion of at least one unit less than the minimum acceptable high school units as prescribed by law, i.e., if the state requires 21 high school units to graduate, a student can be admitted into a community/junior college with 20 high school units, or
2. A High School Equivalency Diploma, or Mississippi Occupational Diploma, or
3. A state-approved Career Certificate from a MS Community College, or 4. An official transcript from an accredited college or university; or
5. The completion of a federally approved ability-to-benefit test.

A student NOT meeting the requirements stated above, may be admitted as non-degree seeking under the following conditions:

1. Meets the requirements to enroll in dual enrollment/dual credit Academic, Career, or Technical classes, or
2. Meets the requirements to enroll in an approved career-pathway that integrates adult education with skills training (MIBEST - Career, Technical or Workforce).

C. PROCESS FOR REQUESTING NEW POSTSECONDARY CTE PROGRAMS There are two categories of New CTE Program Applications:

1. Proposal to add Unique CTE Program: A proposal to implement a program that is not currently being offered under an existing approved or statewide curriculum.
2. Proposal to add an Existing CTE Program (not currently approved for the college). A proposal to implement a program that is not currently approved for the requesting institution that has an existing approved or statewide curriculum.

Colleges may request to add a New CTE Program by submitting a letter of request accompanied by a completed “New Program Application.”

1. Process For Adding A Unique New CTE Program:

- a. Complete Employment Needs Data, including state and district employment and wage projections (average annual salary projections and 10 year employment projections).
- b. Complete student interest data form.
- c. Obtain recommendations from the advisory committee.
- d. Obtain professional association endorsement (if needed).
- e. Develop the curriculum following the 30/45/60 (include 15 hours if applicable) course sequencing format.
- f. The curriculum should list each course planned in the 30/45/60 course sequencing format including the course number, title, and credit hour as an attachment.
- g. List the course description of each core course (not including general education course) in the curriculum.
- h. Submit the Curriculum as “Attachment I”.
- i. Obtain local approval.
- j. Submit the new program application, along with all the requested supporting documentation to the Director of Career and Technical Education.
- k. Applications must be submitted by the monthly deadline published by the Career Technical Officers Association (CTOA) “Events Schedule” (available on the MCCB website).
- l. Upon approval, proposal is presented to MCCB Board of Directors.
- m. Once approved:
 - i. MCCB notifies college of approval.
 - ii. MCCB notifies Mississippi Department of Education and the Research and Curriculum Unit.
 - iii. College works with the MCCB to develop a statewide curriculum framework and technical skills assessment, if required.

2. Process For Adding A New Program With An Existing Curriculum Framework

(The program is already approved for another college)

- a. Complete Employment Needs Data, including state and district employment and wage projections (average annual salary projections and 10 year employment projections).
- b. Complete student interest data form.
- c. Obtain recommendations from the advisory committee.
- d. Obtain professional association endorsement (if needed).
- e. Submit the Curriculum as "Attachment I".
- f. If a statewide curriculum exists, provide a copy of the 30/45/60 (include 15 hours if applicable) course sequence from the curriculum.
- g. If a curriculum does not exist, list each course planned in the 30/45/60 course sequencing format including the course number, title, and credit hour as an attachment.
- h. List the course description of each core course (not including general education courses) in the curriculum.
- i. Obtain local approval.
- j. Submit the new program application, along with all the requested supporting documentation to the Director of Career and Technical Education.
- k. Applications must be submitted by the monthly deadline published by the Career Technical Officers Association (CTOA) "Events Schedule" (available on the MCCB website).
- l. Upon approval, proposal is presented to MCCB Board of Directors.
- m. Once approved:
 - i. MCCB notifies college of approval.
 - ii. MCCB notifies Mississippi Department of Education and the Research and Curriculum Unit.
 - iii. College works with the MCCB to develop a statewide curriculum framework and technical skills assessment, if required.

3. Process For Requesting New Program Option/Concentration Or Location

New options or concentrations are defined as any option (degree or certificate) listed within a statewide curriculum framework of any program currently listed in the Statewide CIP table for requesting institution.

Colleges may request to add new options, concentrations, or locations under existing programs by submitting a completed "New Option Application" (available on the MCCB website). Requests, along with all the requested supporting documentation to the Director of Career and Technical Education. Applications must be submitted by the monthly deadline published by the Career Technical Officers Association (CTOA) "Events Schedule" (available on the MCCB website).

The request must justify the need for the new option, concentration, or location and must address the items outlined in the "New Option Application" including but not limited to the following:

- a. Program, option, or concentration name and CIP code.
- b. Location(s) where the program, new option or concentration will be offered.

- c. State and district employment and wage projections (average annual salary projections and 10 year employment projections).
 - d. Projected enrollment for the new option or concentration or at the new program location.
 - e. Identified technical skills assessment.
 - f. Attach copy of current curriculum (cover and course outline is acceptable).
 - g. If the current curriculum is sequenced in the 30/45/60 SCH stackable credentials format, provide a copy of the course sequence from the curriculum.
 - h. If the curriculum has the 30/45/60 Course Sequencing format and show as an attachment).
 - i. Projected additional costs for facilities, equipment, and faculty.
 - j. Semester of proposed implementation.
 - k. Once approved:
 - i. MCCB notifies college of approval.
 - ii. MCCB notifies Mississippi Department of Education and the Research and Curriculum Unit.
 - iii. College works with the MCCB to develop a statewide curriculum framework and technical skills assessment, if required.
4. Process For Terminating Programs, Options, Locations, Or Concentrations
- Colleges may terminate programs, options, or concentrations at any location through a letter of notification to the MCCB, Director of Career and Technical Education. Applications must be submitted by the monthly deadline published by the Career Technical Officers Association (CTOA) “Events Schedule” (available on the MCCB website). Applications should also include the following:
- a. Program, option, or concentration name and CIP code
 - b. Location(s) of the terminated program, option, or concentration
 - c. Reason for the termination
 - d. Effective date of termination
 - e. Confirmation of closed programs will be emailed to the college president, the RCU, and MDE.

SECTION 2: QUALIFICATIONS FOR POST SECONDARY PERSONNEL

Qualified, effective faculty members are essential to carry out the mission of the institution and to ensure the quality and integrity of its academic programs. The emphasis is on overall qualifications of a faculty member, rather than simply academic credentials. While academic credentials in most cases may well be the standard qualification for faculty members, other types of qualifications may prove to be appropriate. Examples could include appropriately related work experiences in the field, professional licensure and certifications related to the teaching assignment, honors and awards, continuing professional development, relevant peer-reviewed publications, and/or continuous documented excellence in teaching. These types of qualifications are especially important in professional, technical, and technology-dependent fields. (SACSCC, 3rd Edition, 2018).

It is the institution’s obligation to justify and document the qualifications of its faculty. Determining the acceptability of faculty qualifications requires judicious use of professional judgment, especially when persons do not hold degrees in the teaching discipline or are qualified based on criteria other than their

academic credentials. Similarly, persons holding a degree at the same or lower level than the level at which the course is taught require additional qualifications and the application of professional judgment. Additional justification is needed for these cases as compared to cases where the academic credentials are a “perfect match” for the teaching assignments.

Appropriate qualifications may also differ depending on whether a course is generally transferable to other institutions; qualifications for teaching nontransferable technical courses depend heavily on professional experience and appropriate certifications or work experience. Judicious use of professional judgment should also be exercised by those asked to serve as external reviewers of faculty qualifications. (SACSCC, 3rd Edition, 2018)

The qualifications in this manual are designed to support the guidelines published in The Principles of Accreditation by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the regional accrediting body for degree-granting higher education institutions in the Southern states.

The Principles of Accreditation publication may be accessed at: <http://www.sacscoc.org>. Specific guidance from SACSCOC regarding instructor credentials is included in this document in Appendix A. Effective July 1, 2017, CTE instructors must meet the requirements outlined in this manual, as well as professional development requirements by the institution’s Competency Plan for each CTE instructor. The Competency Plan should be designed to meet ensure professional growth and quality instructional programs.

According to the Perkins guidance as listed in the Federal regulations in the Mississippi State Plan for Vocational and Technical Education, teachers are required to attend professional development dedicated to understanding how to effectively and efficiently teach the CTE curriculum which incorporates national standards, yields industry recognized certifications, and increases academic foundations.

Qualifications for postsecondary CTE faculty and administrators set forth in these guidelines are minimum requirements. Postsecondary institutions may require additional qualifications in order to meet state and national accreditation standards related to specific programs, as well as to meet local needs. These minimum qualifications are designed to ensure that individuals employed to teach and support postsecondary CTE in Mississippi meet relevant general education competencies, occupational competencies, and instructional competencies. The qualifications apply to all postsecondary Career and Technical personnel, with the exception of the CTE Support Services Coordinators.

Student Services Coordinator personnel are funded by the Mississippi Department of Education (MDE) through monies received as part of the federal Perkins Act, individuals employed in this position shall continue to meet the licensure requirements (initial and renewal) as set by the Mississippi Department of Education, Office of Career and Technical Education.

In cases where a CTE instructor fails to meet the minimum requirements listed in the Qualifications Manual is employed by the college, the college must submit a letter of notification to the Mississippi Community College Board. The letter should include appropriate justification which demonstrates the individual as “qualified”.

All CTE instructors must attend the Institute for Teaching and Learning or its equivalent in content and time as determined by the MCCB Office of Curriculum and Instruction.

A. PERSONNEL QUALIFICATIONS

1. Career and Technical Non-Degree Certificate Programs

Each full-time and part-time Career and Technical non-degree certificate instructor must possess:

- a. Associate degree, or
- b. Valid work experience in the area of instruction.
- c. A minimum of two (2) years' work experience within the last five years related to the program of study; five years or more experience is preferred.
- d. For programs of study where a national certification is identified by MCCB, the instructor must possess this certification or a plan be provided that outlines compliance within 2 calendar years from the date of hire.
- e. Current instructors must obtain the national certification identified by MCCB for their program of study no later than June 30, 2021.

2. Career and Technical Education Associate Degree Programs

Each full-time and part-time career and technical instructor teaching associate degree courses must possess:

- a. Associate degree, or
- b. Valid work experience in the area of instruction.
- c. A minimum of two (2) years' work experience within the last five years related to the program of study; five years or more experience is preferred.
- d. For programs of study where a national certification is identified by MCCB, the instructor must possess this certification or a plan be provided that outlines compliance within 2 calendar years from the date of hire.
- e. Current instructors must obtain the national certification identified by MCCB for their program of study no later than June 30, 2021.

3. Associate Degree Plus Transfer

Each full-time and part-time instructor teaching courses in professional, occupational, and technical areas (i.e. BOT cluster, Agriculture/Horticulture, and Early Childhood Education) that are components of an associate degree program designed for college transfer or from which substantial numbers of students transfer to senior institutions must have completed:

- a. Master's degree or higher in the teaching discipline.*
- b. Master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).*
- c. Have a minimum of two years' work experience in the subject area; five years or more experience is preferred.
- d. For programs of study where a national certification is identified by MCCB, the instructor must possess this certification or a plan be provided that outlines compliance within 2 calendar years from the date of hire.

- e. Current instructors must obtain the national certification identified by MCCB for their program of study no later than June 30, 2021.

* See Appendix A at the end of this document. However, please refer to the SACSCOC website for the most current guidelines regarding instructor's credentials. <http://www.sacscoc.org>.

4. Qualifications for Programs requiring National Credentials

In order to teach curriculum and/or administer student skills tests as required by the credentialing agent (i.e. NCCER, NATEF, etc.), instructors must possess the training and credentials of that specific program. Also included are other such certifications as AutoCAD for drafting and design, CompTIA Network+ for computer networking technology, OPAC certifications for accounting technology.

To support the transition, MCCB will pay for the following in connection with obtaining credentials, as long as MCCB funds are available:

- a. Initial certification and retake or second attempt exam costs for all instructors who meet the requirements set forth in this manual. A voucher will be provided for the national credential for the instructor based on the program of study or course(s) being taught pending certification for the pathway.
- b. Any necessary training associated with obtaining necessary preparation for the initial certification exam.
- c. Vendor registration fees as required.

MCCB will NOT pay for the following:

- a. Any cost associated with getting labs and/or shops up to necessary standards for offering a program such as NATEF or ASE. Colleges will be responsible for any equipment and facility cost needed to teach curriculum and prepare students for the certification(s) identified for a particular program.
- b. Renewal certifications will not be paid by MCCB.
- c. Licensure fees for instructors (i.e. Practical Nurse, Respiratory Technology, Cosmetology, Barbering, etc.) are not paid by MCCB as they are required to work in the field and a condition of hire at colleges.

For current instructors, colleges have until June 30, 2021 to ensure that instructors are properly credentialed for the program(s) they teach.

5. Qualifications Personnel employed at Secondary Career and Technical Centers operated by a Postsecondary Institutions

a. Career and Technical Education Administrator

Each full-time and part-time CTE Administrator must possess:

- i. A Master's degree; and

- ii. A minimum of two (2) years teaching or counseling experience in CTE; five years or more experience is preferred.

b. Career and Technical Education Counselor

Each full-time and part-time CTE Counselor must possess:

- i. A Master's degree; and
- ii. A minimum of two years of teaching and or related work experience in areas such as employment counseling, academic counseling or human relations; five years or more experience is preferred.

c. Student Service Coordinator Personnel

Student Service Coordinator Personnel will continue to meet the requirements (initial and renewal) as set by the Mississippi Department of Education, Office of Career and Technical Education.

d. Career and Technical Education Programs

Each full-time and part-time career and technical instructor teaching associate degree courses must possess:

- a) Associate degree or higher.
- b) A minimum of two (2) years' work experience within the last five years related to the program of study; five years or more experience is preferred.

For instructors teaching secondary students for secondary credit, please refer to MS Department of Education guidelines for additional licensure requirements. (www.mdek12.org).

6. Recommendations for Career and Technical Education Administrators

a. Career and Technical Education Administrator

Each full-time and part-time CTE Administrator must possess:

- i. A Master's degree from a regionally accredited institution of higher education, and
- ii. A minimum of two (2) years teaching or counseling experience in CTE. (Five years or more experience is preferred)

b. Health Program Supervisor

Each full-time and part-time Health Program Supervisor must adhere to the accreditation standards of designated accrediting organization.

c. Career and Technical Education Counselor

Each full-time and part-time CTE Counselor must possess:

- i. A Master's degree, and

- ii. A minimum of two (2) years of teaching and/or related work experience in areas such as employment counseling, academic counseling or human relations. (Five years or more experience is preferred)

d. Work-Based Learning Coordinator

Each full-time and part-time work-based learning coordinator must possess:

- i. A Master's degree, preferably in a field of business or CTE, and
- ii. A minimum of two (2) years related work experience in business and industry or CTE.
(Five years or more experience is preferred)

SECTION 3: PROFESSIONAL DEVELOPMENT

Instructional Competency must be demonstrated through a degree in higher education or through completion of the best practices education program. The best practices program for Mississippi Postsecondary instructors is the Institute for Teaching and Learning. This program consists of forty (40) contact hours of intensive course work, and is designed for individuals who do not have a bachelor's degree or higher in education. The content areas include the teaching and learning process, communication skills, planning and developing instructional materials, managing learning activities, student assessments, and statewide initiatives in CTE.

Career and Technical faculty who have a Bachelor's Degree (or higher) in education are exempt from the Institute for Teaching and Learning program. Postsecondary CTE Deans or Directors in certain circumstances may request a Waiver of Best Practices by submitting a letter to the MCCB Assistant Director of Professional Development explaining the special qualifications of the instructor. MCCB will process the request for waiver and notify the dean/director in writing whether or not the request is approved or denied.

Each institution must develop a Competency Plan for staff development for each career and technical instructors. The Competency Plan should be designed to meet the needs of the instructor to ensure professional growth and quality instructional programs. According to the Perkins guidance as listed in the Federal regulations in the Mississippi State Plan for Vocational and Technical Education, teachers are required to attend professional development dedicated to understanding how to effectively and efficiently teach the CTE curriculum that is based on national standards, industry recognized certifications, and increased academic foundations. Please refer to the Perkins State Plan (<http://www.mccb.edu/pdfs/ct/PerkinsStatePlan.pdf>) for more guidance regarding professional development.

The following activities are strongly encouraged for new personnel who have limited teaching experience and for those who do not possess a bachelor's degree in education or higher.

A. Mentoring

A new instructor may be paired with an instructor who has strong organizational skills and has effective teaching techniques. It is recommended they meet twice a week for one – two hours

planning sessions during the first semester of employment. This should be structured activity with expected outcomes.

B. Institute for Teaching and Learning (Required)*

The Institute for Teaching and Learning offers training to new CTE instructors. The Institute offers this training using a blended delivery approach featuring face-to-face and online methods. Content areas include instructional planning, classroom management, pedagogy, learning outcomes, rubrics, student assessment, communication skills, conflict resolution, time management, and professionalism. The Institute also offers one-on-one observation and feedback of new instructors.

* All career and technical instructors must attend the Institute for Teaching and Learning or its equivalent in content and time as determined by the MCCB, Office of Curriculum and Instruction.

C. Technology Training

Technology training can be local, state or national on topics of relevance to instructors. Many business/industries offer specific training to technicians i.e., General Motors, Ford, IBM, etc. It is critical that career and technical instructors remain current with technology. Technology training related to specific programs present an on-going challenge.

D. Industry Visits

Industry visits can provide an avenue for instructors to keep updated on industry requirements and standards, provided visits are made to progressive industries related to the teaching field.

E. Professional Seminars, Conferences, and Workshops

Seminars, conferences, and workshops can be a good source of information for experienced instructors. Most are not as intense or hands on as may be needed for beginning instructors.

F. Academic Coursework

Academic coursework should be designed specifically to meet the individual needs of instructors. Courses may include training in such areas as testing and evaluation, instructional delivery, and program development.

SECTION 4: GUIDELINES ON STATEWIDE ARTICULATED CREDIT

See appendix B.

SECTION 5: POSTSECONDARY CAREER AND TECHNICAL EDUCATION FUNDING FORMULA-HISTORY

A Career Technical Formula Study Committee was appointed by Dr. Wayne Stonecypher, Executive Director of the SBCJC, in January of 2005 to satisfy conditions set forth in the Memorandum of Agreement between the Mississippi Board of Education (MBE), the Mississippi Department of Education (MDE) and the State Board for Community and Junior Colleges (SBCJC). More importantly, the charge to the Committee was to provide recommendations for funding CTE at the community and junior college level in a way that is most equitable to the fifteen colleges and which encourages colleges to provide programs and services to constituents at the greatest level of quality and efficiency. Finally, although it was not a part of the original charge, the Committee accepted the challenge to develop a formula which would raise the standards and expectations of Career Technical programs to a higher level of respect in the eyes of the public.

The Career Technical Formula Study Committee was composed of a cross section of individuals representing Presidents, Chief Academic Officers, Career Technical Deans, Business Managers and SBCJC Staff members. The Committee was challenged by Dr. Stonecypher and the Chairman to make decisions on the basis of what was in the best interest of the community college system. It was very evident that committee members met this challenge throughout the process. The Committee met six times and spent many hours examining the impact of various formulas upon the system. In addition, many emails were exchanged whereby various information and opinions were shared. They took their task seriously and made decisions with the welfare of the community college system in mind.

The Committee presented their recommendations to the MACJC and the SBCJC as a representation of its work. Realizing that the final formula may be changed by either of those two groups, the report represented a sound product that is equitable for all fifteen institutions and which encourages colleges to provide programs and services at the highest level of quality and efficiency.

The Committee developed a survey to gather information from members of the five constituent groups. This survey asked respondents to rank factors in priority in accordance with the weight that should be given in determining funding for Career Technical Education. It also provided an opportunity for respondents to list elements which should be included in any funding formula.

There were fifty-three surveys completed and returned. Respondents rated “equity” as a very high priority, but many of the respondents indicated they felt equity was a “given” and did not rank it. The results indicated that the highest single priority by respondents was the formula should be based on FTE, the second highest priority was “high cost” programs, with ninety-six percent (96%) indicating that a special weight should be assigned for high cost programs. “High Demand” programs were ranked as important as well, and “Performance Based” factors were also listed as important to the respondents.

A sub-committee was selected by the Chair and the Director of the Career Technical Division at the SBCJC to advise the Committee on what programs should be listed as “High Cost” and at which level. Members of that sub-committee developed a survey to gather information from Career Technical Deans, which would substantiate a listing of program costs. The Committee has asked for the top eight “high cost” programs, but the subcommittee expanded that list to nineteen, with a rank order, and recommended that all nineteen programs be considered high cost.

As indicated on survey returns, it was agreed that high cost programs should be funded at a higher level than those programs which were not high cost. Several formulas were analyzed to determine a means to increase funding in an equitable manner for those programs which cost more to operate.

Formulas were developed, using the following weights:

	Level 1	Level 2	Level 3
Formula #1 (add weight)	.2	.3	.4
Formula #2 (add weight)	1.2	1.3	1.4
Formula #3 (add weight)	.5	1.0	1.5
Formula #4 (add weight)	.25	.50	.75
Formula #5 (add weight)	.25	.75	1.25

In analyzing the impact of these weights for high cost programs, it was determined that formula #1 added much too little to make a difference in funding and that Formula #2 added much too much to each level. It was also determined that the weight added to the three levels in Formula #1 and #2 was much too small to make a difference between the three levels.

Formula #3 and #5 were much better than the first two formulas, but still provided too much additional funding, particularly at level 3. Level #4 seemed to provide the needed additional funds, but did not over compensate for the program costs.

Based upon the results of the surveys, the programs were listed in rank order by the sub-committee, with the program that had the highest cost ranked number one and the program with the lowest as number nineteen. The sub-committee then divided the programs into three levels for funding.

A. Full-Time Equivalents (FTE) Based Funding

Full Time Equivalents (FTE) is the first and most prominent component for funding CTE programs. Once FTE is awarded for each 24 semester credit hour (SCH) earned over a 12 month period of time (summer, fall, and spring). No academic or AND credit hours are to be included in this formula.

B. Base/Site

A base (site) amount of the Career Technical appropriation is to be set aside to be divided equally among the 15 college districts. It was recommended that 7.5% of the prior year Career Technical appropriation be used as the base (site) amount each year.

C. Phase-In

FTE based funding was phased in over a period of 3 years, beginning with FY 2007 as the FIRST YEAR and continuing through FY08 and FY09, when the new funding mechanism was fully implemented.

NOTE: the “Hold Harmless” provision was the only component of this formula that was phased in over the three year period. The intent of hold harmless was that no institution would suffer extraordinary loss of funding because of the formula changes.

D. High Cost Programs

High cost programs receive a higher level of funding to help cover the additional cost to those institutions offering such programs. There are three levels of additional funding for semester credit hours taken by those students enrolled in High Cost programs: for Level One programs the institution should receive an additional weight of .25 per FTE; for Level Two programs the institution should receive an additional weight of .50 per FTE and for Level Three programs the institution should receive an additional weight of .75 per FTE.

SECTION 6: TYPES OF EQUIPMENT FUNDS, USES AND RESTRICTIONS

A. Upgrade (State) Equipment Funds Uses/Restrictions

1. Eighty (80) percent of the total allocation must be expended on capitalized equipment. Equipment costing one thousand (\$1000.00) dollars or above, or items listed on the auditors exception list.
2. Twenty (20) percent of the total allocation may be spent on non-capitalized items that cost from one hundred (\$100.00) dollars to nine hundred and ninety nine (\$999.00) dollars.
3. Twenty (20) percent of the total allocation may be spent on equipment for administration.

Any employee initiating the purchase of services, commodities and equipment without proper authorization and approval through the purchase requisition and purchase order process may be help personally liable, and/or terminated.

B. Perkins V (Federal) Equipment Funds Uses/Restrictions

1. All equipment purchased with Perkins V, 85% funds must be capitalized.
2. For Perkins purposes only, the definition of capitalized equipment will be equipment costing five hundred (\$500.00) dollars or above, or items listed on the auditors exception list.
3. Perkins V, 85% funds cannot be used to purchase equipment, software, or other cost items for administrative purposes.
4. Equipment should be targeted (a) to areas/programs with highest concentration of special populations, (b) to programs that are not equipped for the delivery system, and (c) for technology enhancement.
5. Equipment should be state-of-the-art and incorporate current and emerging technology to improve instruction that is technologically enhanced and appropriate in terms of emerging high tech workplace environment.
6. Equipment is not to be purchased to maintain status quo.

C. Approval Processes For Equipment Purchases

1. Approval Process For Expending State Upgrade Funds

Each LEA will receive an allocation from the MCCB (provided funds are available) to purchase equipment for Career and Technical programs. The LEA does not need prior approval from the MCCB, nor the Mississippi Department of Education, Office of Career and Technical Education before purchasing equipment. Each LEA has the authority to determine equipment needs; however, note the uses/restrictions for upgrade funds.

Reimbursement from the MCCB will be limited to the allocated amount.

2. Approval Process For Expending Perkins V, 85% Funds

Each community college will receive a separate allocation of Perkins funds which may be used in the four approved areas. Each community college will establish a budget via Lotus Notes with the Mississippi Department of Education indicating the amount that the LEA will allocate to the four approved areas:

- a. Salaries for Student Service Coordinators,
- b. Adult Education,
- c. Software, and

d. Equipment.

The LEA does not need prior approval from the MCCB, nor the Mississippi Department of Education, Office of Career and Technical Education to purchase equipment or software. However, please note the uses/restrictions for Perkins V 85% funds.

D. Reimbursement Processes For Equipment Purchases

Each community/junior college will request reimbursement from the MCCB via the WESS subgrant on-line system. Non-capitalized items will be paid from commodities. Reimbursement will be limited to the allocated amount.

E. Reimbursement Process For Perkins V - 85% Equipment

Each community/junior college will use Lotus Notes to notify MDE of equipment purchased providing program name, type of equipment, cost, brand name, serial number, etc. This documentation is required for reimbursement from MDE.

The process is identical to previous years with the exception of requiring approval from the Mississippi Department of Education, Office of Career and Technical Education, prior to the purchase of equipment. Reimbursement will be limited to the allocated amount.

F. Equipment Transfer And Disposal Processes

Equipment purchased for a program but no longer needed, may be transferred by progressing through the following order to a:

1. Career-Technical program within the community/junior college.
2. Mississippi Public community/junior college.
3. Secondary Public Career and Technical Center within the community/junior college district.
4. Public Secondary Career and Technical Center in the state.
5. State Surplus property.

Each LEA must develop an inventory tracking system and a method to show items transferred to other agencies (such as a hand receipt).

G. Disposal of Career/Technical Equipment

1. Each institution should have an approved policy to properly dispose of out dated Career/Technical equipment.
2. Monies collected for sale of out dated equipment should be returned to Career and Technical programs.
3. Each LEA should develop a policy for lost/stolen inventory.
4. Trade-ins are left to the discretion of each LEA.

SECTION 7: CURRICULUM AND INSTRUCTION

The Mississippi Community College Board, Office of Curriculum and Instruction (C&I) is funded through a partnership with the Mississippi Department of Education (MDE), who serves as Mississippi's fiscal agent for state and federal Career and Technical Education (CTE) funds. The office is tasked with

developing statewide CTE curriculum, programming, and professional development designed to meet the local and statewide economic demand.

Our mission is to develop an innovative curriculum and professional training system that facilitates seamless educational delivery by well-trained professionals who are focused on preparing skilled workers in the 21st century economy. To support development and delivery of curriculum, the Office of Curriculum and Instruction established the following goals:

1. Produce research-based, high-quality curricula for MS Community Colleges where all programs are aligned to industry needs and national certifications.
2. Provide outcomes-based, professional development teaching, learning, and leadership strategies to accelerate instructor, staff, and administrator effectiveness.
3. Support the implementation of groundbreaking career pathways; innovative instructional design and delivery (i.e. online instruction, stackable credentials, block scheduling, hybrid courses); and infusion of technology in the classroom.
4. Be responsive to college needs and industry demands.

A. REVIEW OF INDUSTRY CERTIFICATION/ACCREDITATION CHANGES

The Office of Curriculum and Instruction will review all national/state certifications and accreditation standards. This will occur as curricula are revised and/or community colleges request assessments.

This data will be used when developing the annual plan of work for new curriculum development and revisions.

B. RESEARCH-BASED DESIGN

Curriculum will be developed to meet the needs of Mississippi's current and emerging economy. The purpose for beginning the curriculum development process with a research-based design is to document the need for the CTE or Workforce programs as well as define and design technical, academic, and workplace skill/student outcomes consistent with national trends.

1. Industry Need And Expectation

a. National Analysis of Related Programs

Curriculum Specialists will conduct an analysis of programs to include:

- i. National trends of curriculum design and implementation practices in related programs.
- ii. National standards and/or accrediting agency student learning outcomes.
- iii. Related industry certifications and potential module design.
- iv. Determination of potential entry and exit points.
- v. Determine online and blended learning opportunities.

b. Alignment to Industry Need and Expectation

Program content will be aligned to local and state economic data. A summary of the following will be provided in the framework using the Mississippi State University's National Strategic Planning and Analysis Research Center (NSPARC).

- i. Current job demand and projection data by state-level and community college district.
 - ii. Employer wage data by state-level and community college district.
- c. Input from MS Industry

Curriculum will not be written until business and industry representatives are identified and agree to participate in the curriculum development process. In an effort to ensure local demands are met through programmatic curricula, the MCCB will work with college Workforce Education Directors, Career and Technical Education Administrators, and faculty advisory committees or councils to solicit business and industry representatives to participate in curriculum development process. Specifically, the MCCB will solicit one-on-one or small group input and request that colleges bring one industry partner with them to the writing team meeting.
- d. Business and Industry Pre-Revision/Development Survey

The purpose of this survey is to document curriculum changes and the quality of current curriculum. This survey can be shared with advisory committee members and other workforce contacts. When curricula are being revised, specific revision questions regarding national certifications, student and trainee exit points, and other related topics would be included. The survey will also include an employer satisfaction component.
- 2. Student And Trainee Success

Labor Market and Perkins data (ex. skills attainment, placement, job attainment, job sustainability, and wage data) will be analyzed.
- 3. College Faculty, Staff, And Administrator Perspectives

In coordination with the Workforce, Career, and Technical Education Annual Conference, the Office of Curriculum and Instruction will administer a statewide survey that will collect data from faculty, staff, and administrators for each curricula framework.
- 4. Faculty Input

On an annual basis, CTE and Workforce faculty will be asked to:

 - a. Evaluate the curricula quality,
 - b. Share information regarding updated national standards, and
 - c. Identify future training needs related to curricula content.
- 5. Administrator Input

On an annual basis, CTE and Workforce faculty will be asked to:

 - a. Discuss student completion, placement challenges, and best practices,
 - b. Identify changes needed for curricula that are about to be revised, and
 - c. Identify professional development needs for faculty, staff, and administrators.
- 6. Subject Matter Experts

When possible, the Office of Curriculum and Instruction will reach out to subject matter experts from state and national organizations. If a program is accredited, the accrediting agency will be asked to participate in the curriculum revision or development process.

C. CURRICULUM DEVELOPMENT

1. Curriculum Development Logistics

Meeting Facilitation

a. Participants

- i. Faculty: Each college that offers the program is invited and encouraged to participate. Any college considering offering the program in the future can participate at the colleges' expense.
- ii. Administrators: It is preferred that at least one administrator participate on each curriculum revision team. Administrators with related experience to the curriculum content will be solicited to participate.
- iii. Industry Representatives: Curriculum development meetings will not occur until industry representatives have confirmed attendance or industry input has been collected. It is to the advantage of the colleges participating in this curriculum development or rewrite to include the industry representatives that hire their graduates. If no industry representation can be secured, curriculum development and/or rewrite will be postponed until such time as industry involvement can be assured and MCCB staff is able to reschedule all necessary meetings.

b. Pre-Writing Team Meeting (Virtual Meeting)

In preparation for the writing team meeting, a preliminary meeting will be held using video conferencing program or a conference call. Instructors, administrators, and industry members are invited and encouraged to participate. During this meeting, the team members will:

- i. Review and finalize the research-based component.
- ii. Discuss industry-recognized credentials, certifications, and national standards.
- iii. Discuss and draft the courses within the program of study for the career ready certificate, accelerated career pathway certificate, career certificate, technical certificate, and AAS degree options.

c. Writing Team Meeting (Face-to-face Meeting)

Writing team meetings will be held in the Jackson area. The following will occur during this meeting:

- i. Agree upon courses within the program of study for the career ready certificate, accelerated career pathway certificate, career certificate, technical certificate, and AAS degree options.
- ii. Define and organize student-learning outcomes.
- iii. Finalize all other components of the curriculum document.

d. Post-Writing Team Meeting (Virtual Meeting)

After the curriculum is in a final draft format, an online, post-writing team meeting will be held. During this meeting:

- i. Writing team members and curriculum specialists will present an overview of major changes and updates to the program's curriculum.
- ii. Faculty, college administrators, and industry participants will have the opportunity to ask clarifying questions regarding the updates.
- iii. After the online meeting, faculty, administrators, and industry personnel will be asked to complete a validation survey.

2. Curriculum Components

The following curriculum components will be explained in detail during the "Forward" section of the Curriculum Document.

a. Curriculum Identification Information

- i. Curriculum Title: The title will be retrieved from the Statewide CIP Table.
- ii. Program CIP: The CIP code will be the same CIP code from the state-wide CIP Table. If the program is a new program, the CIP code will be retrieved from the college's new program approval letter.
- iii. Curriculum Board Approval Date: The month and year of MCCB Board Approval will Be Identified (Example: February 2014).

b. Curriculum Contact Information

The following Information will be included:

Direct Inquiries to:

Director Name
Director of Curriculum and Instruction
Phone: 601-432-6155
Email: skolle@mccb.edu

Curriculum Specialist's Name
Curriculum Specialists
Phone Number: insert phone number Email: insert email address

Published by:
Mississippi Community College Board
Division of Workforce, Career, Technical Education and Adult Education
3825 Ridgewood Road
Jackson, MS 39211

c. Acknowledgements

Curriculum is driven by instructors at each local community college and based on input from local and state-wide business and industry members. The following list of acknowledgements will be listed in the curriculum:

- i. Faculty Writing Team Members: Name, College, and Campus Location.
- ii. Administrative Writing Team Members: Name, College, and Campus Location.
- iii. Business and Industry Writing Team Members: Name, Company, and Location.

d. Research Abstract

- i. Program Summary: List the purpose and mission of the program.
- ii. Major Dates of Program Development: The purpose of listing dates is to show the evolution of curriculum revisions. The reader should be able to see major stakeholder involvement and input into the curriculum framework. This should include, but is not limited to, the following:
 1. Industry site visits and summary of recommendations.
 2. Advisory committee meetings and summary of recommendations.
 3. Survey deployment dates and summary of recommendations.
 4. Writing team meetings and summary of major actions.
 5. Administrative Procedures Act (APA) and summary of substantive comments.
 6. Final MCCB Board approval.
- i. Summary of Major Trends in Industry: This data comes from the review of national and state trends/issues. Major trends and issues will be summarized and used as a guide in future professional training.

e. National Standards and Industry Certification

Student learning outcomes will be adopted from national standards and/or national certification expectations. The following will be included:

- i. Identification: Develop a summary and list contact information of national standard and/or industry certification.
- ii. Industry Certification Matrix: Design a matrix showing where industry certification outcomes are included in the program curricula.
- iii. Accreditation: Include contact information and an accreditation agency description when necessary.

f. Industry Job Projection Data

The following will be included to show alignment to industry demand:

- i. High Skill, High Wage, and High Demand Table: State and local economic data.

g. Modularization

The curriculum will be designed in a stackable credential format and credit courses will be divided and aligned into non-credit modules (when appropriate).

- i. Stackable Credentials: Each curriculum will be designed into a career certificate (30 semester hours), technical certificate (45 semester hours), and an Associate of Applied Science Degree (60 semester hours) as applicable.

- ii. Multiple Exit Points: When possible, each exit point will be aligned to potential wage earnings.
- h. Credit by Examination
Credit by Examination procedures document will be followed when developing curriculum.
- i. Articulation
The curriculum will include the following articulation elements:
 - i. Statewide Articulation with High Schools: When possible, with the assistance of secondary instructors and/or administrators, each curriculum will list possible articulated credit with secondary CTE programs.
 - ii. Dual Credit: Using a community college's dual credit policy and procedures, community colleges with the assistance of secondary instructors and/or administrators, will identify courses that may be taught for dual credit. Those courses will not only have a course code for postsecondary offerings, but will also include a secondary MSIS course code for easy secondary program delivery and transferability to postsecondary institutions.
 - iii. Statewide Articulation with Institutions of Higher Learning: When possible, curriculum will list courses that can be articulated to Mississippi 4-year institutions of higher learning.
- j. Southern Association of Colleges and Schools (SACS) General Education Core Courses
To receive the Associate of Applied Science Degree, a student must complete all of the required coursework found in the Career Certificate option, Technical Certificate option and a minimum of 15 semester hours of General Education Core.

The courses in the General Education Core may be spaced out over the entire length of the program so that students complete some academic and Career Technical courses each semester or provided primarily within the last semester.

Each community college will specify the actual courses that are required to meet the General Education Core Requirements for the Associate of Applied Science Degree at their college. The Southern Association of Colleges and Schools (SACS) Commission on Colleges Standard 2.7.3 from the Principles of Accreditation: Foundations for Quality Enhancement 1 describes the general education core.

Section 2.7.3 in each undergraduate degree program, the institution requires the successful completion of a general education component at the collegiate level that:

- i. is substantial component of each undergraduate degree,
- ii. ensures breadth of knowledge, and

iii. is based on a coherent rationale.

For degree completion in associate programs, the component constitutes a minimum of 15 semester hours or the equivalent. These credit hours are to be drawn from and include at least one course from the following areas: humanities/fine arts, social/behavioral sciences, and natural science/mathematics. The courses do not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession.

Each AAS curriculum framework includes the pathway options listed below:

Accelerated Integrated Transitions Career Pathway (MIBEST) *	15 credits max in a program of study
Business and Industry Flex Certificate**	15 credits in different program of study to meet the needs of business and industry for short term training for a specific skillset
College Credit Certificate***	15 credit hours in one program of study for short term training to enter the workforce
Career Certificate	30 credits minimum
Technical Certificate	Career Certificate Coursework + 15 credits minimum (total of 45 credits)
General Education Core Courses	Career Certificate Coursework + Technical Certificate Coursework + 15 academic general education credits minimum (total of 60 credits)
Total Semester Credit Hours for the Associate of Applied Science Degree	60 credits minimum hours earned as a compilation of Career, Technical, and Academic credit hours

Note: Professional accreditation may require additional hours for the AAS pathway option. Programs of study will align and prepare students all professional accreditation standards, even if hours for AAS degree exceed the standard 60 credit hours.

k. Online/Blended Learning

Online and blended learning opportunities may be identified at the course level. During the curriculum revision process, curriculum specialists will assist in researching course template (i.e. course cartridge) availability through various textbook publishers. If available, this resource will be listed in the reference section of the curriculum resource manual.

In the event of significant revisions to a framework, curriculum update training may be offered to all instructors who will be teaching the revised curriculum. At this training,

instructors will have the opportunity to learn how to integrate the common course template into their instruction.

MCCB staff will provide an opportunity for the instructors to work together to develop statewide online/blended learning modules or courses that support the revised curriculum. The office of eLearning at the MCCB will assist in this training and module/course access for instructors.

l. Assessments

College administrators and instructors will be asked to come to a consensus on a common national credential or certification be used as the technical skills attainment for performance reporting. If colleges are unable to come to a consensus, a MS-CPAS2 assessment will be developed. The MS-CPAS2 blueprint and assessment information will be identified and posted to the curriculum download website. College will continue to have the ability to implement national assessments listed as an approved alternative assessment document located on the MCCB website.

MS-CPAS2 Item Alignment and Development is extremely important to the curriculum revision process. MCCB staff, college administrators, and college faculty will participate with RCU staff in Item Alignment and Development meetings to be held in conjunction with the curriculum writing team meetings. As a prerequisite to MS-CPAS2 Item Alignment and Development meetings, college faculty must complete the assessment writing training module provided electronically through the RCU.

m. Old-to-New Transition Table

In an effort to allow colleges to adopt curriculum as quickly as possible, a table will be developed showing how students who entered a program of study in a current curriculum can complete graduation requirements under the revised curriculum. The table will only serve as a guide and resource for the colleges.

n. Course Information

The following information will be included in each course:

- i. Course Name
- ii. Course Number
- iii. Course Description
- iv. Lab, Lecture, Clinical, and Contact Hours defined
- v. Pre-requisites and/or Co-requisites
- vi. Dual Credit Course Number Identification
- vii. Suggested Articulation Courses Identified
- viii. Student Learning Outcomes adopted from industry standards
- ix. Suggested Instructional Materials (Textbooks, websites/web resources)
- x. Suggested Equipment List

3. Uniform Course Numbering

The system of identifying courses in all CTE curricula was adopted in 2005 to become implemented in the fifteen public community college districts during the 2006-2007 school years. The leadership and efforts provided by the Mississippi Community and Junior College Chief Career Technical Officers and Deans made this course numbering system possible.

A general revision of the numbering system is prepared each year. New courses are constantly reviewed by a screening committee of the Career Technical Officers Association (CTOA) referred to as the Uniform Course numbering (UCN) Committee.

When a new course is added or an existing course revised, the name of the course, a complete course description, the course number, and the SCH breakdown is provided and the Uniform Course Numbering (UCN) database updated.

a. Course Identifiers And Numbers

Each course in the numbering system has a three-letter prefix that identifies the subject field to which the course belongs. Examples: BOT identifies a Business Office Technology course; DDT identifies a Drafting and Design Technology course, etc.

- i. First number designates year.
- ii. Example: 1000 level courses indicate first year's work 2000 level courses indicate second year's work
- iii. Second number designates grouping.
- iv. Grouping are consistent for each year but not from year one to year two
- v. Third number designates sequence in a group. vi. Fourth number designates course credit hours.

Colleges have the flexibility to adjust the semester credit hours of a course up 1 hour or down 1 hour (after informing the Mississippi Community College Board [MCCB] of the change). Thus, credit may vary from course credit shown by varying this number up or down 1 credit hour.

Example: DDT 1213 and DDT 1214 with the same letter prefix indicate the same basic course, but with different credit due to more lecture or laboratory time.

b. Developing New Courses

Course developed as part of the statewide curriculum development/revision process will automatically be included in the Electronic Audit Reporting System (eARS) database.

All other career and technical education courses must be approved for inclusion and course reimbursement purposes. When a college wants to add a new course outside of the curriculum revision meetings, the following process should occur:

- i. The requesting college obtains necessary institutional approval(s).
- ii. The requesting college completes a new course request form, available from the MCCB website.
- iii. The requesting college submits the completed course request form to the Director of Curriculum and Instruction at the MCCB.

- iv. The director will forward the form to the chair of the Career Technical Officers Association (CTOA) uniform course numbering committee for committee consideration.
- v. The committee chair shall notify the Director Curriculum and Instruction of the committee's action on the request.
- vi. Once approved, the director will update the eARS database and the UCC document for reimbursement purposes the course will be added to the curriculum framework when the document is revised.
- vii. The Director of Curriculum and Instruction will send a notification that the new course has been approved via CCTO listserv.

d. Curriculum Percentages

The content of the courses in this section reflects approximately 75% of the time allocated to each course. The remaining 25% of each course should be developed at the local district level and may reflect:

- i. Additional competencies and objectives within the course related to topics not found in the State curriculum framework, including activities related to specific needs of industries in the community college district.
- ii. Activities that develop a higher level of mastery on the existing competencies and suggested objectives.
- iii. Activities and instruction related to new technologies and concepts that were not prevalent at the time the current framework was developed/revised.
- iv. Activities which implement components of the including integration of academic and CTE skills and coursework, school-to-work transition activities, and articulation of secondary and postsecondary CTE programs.
- v. Individualized learning activities, including worksite learning activities, to better prepare individuals in the courses for their chosen occupational area.

e. Semester Credit Hour Definition

MS Community College Board policy indicates:

A semester credit hour is defined as a minimum student-teacher contact of 750 minutes for lecture and 1500 minutes for laboratory. (This does not include time for passing between classes, registration, nor final examinations.)

Semester credit hour(s) will align with United States Department of Education regulatory policy with regard to financial aid. This information can be found in the Federal Student Aid Handbook, chapter on School Eligibility and Operations, at www.ifap.ed.gov.

Courses can be developed using lecture, laboratory, clinical, or contact hours. When developing curriculum content, use the following conversion table:

	Semester Credit Hour (SCH)	SCH Breakdown Equivalency	Contact Hours
Lecture Hour	1	1	15
Laboratory Hours	1	2	30
Clinical Hours	1	3	45

When determining contact hours, use the following formula:

Step 1: Breakdown of lab/lecture/clinical hours x 15

Step 2: Add hours from lab/lecture/clinical together for total contact hours

Example: Step 1 3 semester credit hours (2 lecture, 2 lab)

$$2 (\text{lecture}) \times 15 = 30$$

$$2 (\text{lab}) \times 15 = 30$$

$$\text{Step 2} \quad 30 + 30 = 60 \text{ total contact hours}$$

e. Curriculum Implementation Flexibility and Customization

Approved Career–Technical elective courses have been included to allow community colleges and students to customize programs to meet the needs of industries and employers in their area. In order to provide flexibility within the colleges, individual courses within a framework may be customized by doing the following:

- i. adding new student learning outcomes and suggested objectives to complement the existing student learning outcomes and suggested objectives in the program framework
- ii. revising or extending the suggested objectives for individual student learning outcomes
- iii. adjusting the semester credit hours of a course to be up 1 hour or down 1 hour (after informing the MCCB of the change) Community colleges can submit the “Request to change semester credit hours form” found on the MCCB website.

Once approved, this form will be returned to the community college. Community colleges may need to file these forms for future SACS accrediting visits, accrediting visits by state or national boards or other accrediting meetings.

In addition, the curriculum framework as a whole may be customized by doing the following:

- i. sequencing courses within the suggested course sequence to reflect the new assessment format.

- ii. developing and adding a new course that meets specific needs of industries and other clients in the community or junior college district (with MCCB approval).
- iii. adding courses listed in the “Approved Career and Technical Electives List” as local certificate and degree completion requirements to meet specific needs of industries and other clients in the community (“Approved Career and Technical Electives” are currently approved in the eARS database; therefore, MCCB approval is not required).

f. Curriculum Development for New Programs and New Program Options

Colleges will follow the procedure for requesting a new program or new program option through the Director of Career and Technical Education’s office by completing the proper application form.

Once the MCCB Board Members approve the new program or program option, college will implement program locally. During the first 2 years of implementation, the MCCB Office of Curriculum and Instruction will work with the college to develop a statewide curriculum framework and technical skills assessment. The following timeline will be followed for new programs and new program options:

Year 1, Fall Semester

- i. Identify steering committee of business/industry, education, and government personnel. This may be the same committee that colleges identified on the new program application.
- ii. Conduct research to learn about other programs, certifications, standards, etc.
- iii. Identify the writing team (faculty from college applying for the program and those with related programs, if applicable).
- iv. Conduct a writing team meeting with writing team, administrators, and business/industry steering committee to draft curriculum for the Career and Technical Certificate and the A.A.S. degree option.

Year 2, Spring Semester

- i. Hold a writing team meeting to review and finalize the Career and Technical Certificate and the A.A.S. degree option.
- ii. Begin MCCB Board Member Approval process that includes validation, presentation to members, APA, and final vote of approval.
- iii. Upload curriculum framework to the MCCB Curriculum Download Website and include program into the regular curriculum revision cycle.
- iv. Work with colleges to identify a national certification or coordinate efforts with RCU to develop the MS-CPAS2.

Year 3, Spring Semester

Administer appropriate end of year program exam (Licensure Exam, National Certification, MS-CPAS 2, or MCCB Approved Alternative Assessment) that will be used for Perkins Technical Skills Attainment reporting.

4. Student Learning Outcomes

Student Learning Outcomes will be adopted from national certification or credentialing standards. If a program does not have a related national certification or credentialing standard, the Student Learning Outcomes will be adopted from a related national standard or aligned/approved from industry representatives/community college staff/administrators supporting these pathways.

5. Curriculum Resources

Curriculum resources will be prepared as a companion piece for each curriculum framework. Faculty members will be asked to provide resources such as textbooks, software, websites, and equipment they currently use or believe will be useful with revised curriculum.

- a. Formative Assessments or diagnostic testing is a range of formal and informal assessment procedures employed by teachers during the learning process in order to modify teaching and learning activities to improve student attainment (example: unit or end of course assessments).
- b. MCCB will provide materials useful to instructors when developing formative assessments through the curriculum resources and various online resources. The Teaching and Learning Institute will offer a module on assessment development.
- c. Instructional Practices - The Teaching and Learning Institute will offer a module on effective instructional practices and learning styles.

D. VALIDATION OF CONTENT

Each newly developed or revised curriculum framework will be validated by college faculty/trainers, college administration, and business and industry prior to presenting the curriculum to the MS Community College Board for approval.

1. College & Industry Validation Meeting and Survey

Deans, Directors, Faculty, Trainers, and Industry Members will be asked to review the curriculum and complete a validation survey. The following will take place:

- a. The writing team members and curriculum specialists will lead an online meeting to describe the input from industry and changes in the revised curriculum. This is the same online meeting identified in section 3.1.
- b. At the end of the meeting, information will be solicited from participants using an online survey.
- c. Meeting participants will give recommendations for curriculum specific professional development opportunities.
- d. Based on feedback, appropriate MCCB personnel will move the curriculum through the MCCB Board approval process.

E. MCCB BOARD APPROVAL PROCESS

Curricula will be presented to the MCCB Board on a bi-annual basis or when approval is deemed necessary. The following will be included in the board packet:

1. Curricula CIP and name
2. Summary of major changes
3. Validation survey results

Upon approval, the curricula will be made public for comments via the Secretary of State Office for 30 days. After the public comment period, the curricula will be presented to the board for final approval or, if comments warrant, go back into the revision process.

Upon final approval, the eARS database and the UNC document will be updated where needed.

F. COMMUNITY COLLEGE IMPLEMENTATION OF CURRICULA

Once curricula has final board approval, the community colleges offering programs specified under a curricula framework have until the fall term of the following fiscal year to implement. For example, any curricula approved during the calendar year 2014 (January 1 – December 31, 2014) should be implemented in the fall term of 2015. Any deviation from this implementation schedule could affect student performance on MS-CPAS2, corresponding Perkins indicators, and/or national state credentials.

G. NEW CURRICULUM TRAINING MEETINGS

1. Planning

Data from the online validation meeting will be used to recommend professional development opportunities for curriculum changes. If necessary, a committee of instructors and administrators may be assembled to assist in the planning. A planning packet will be submitted to the Director of Curriculum and Instruction for approval prior to advertising the training event. The planning packet will include:

- a. Measurable objectives for training content will be included.
- b. All full-time and adjunct instructors who teach the program will be eligible to participate in the training. Administrators are welcomed to attend the training.
- c. Delivery methods may include distance learning opportunities using the state-wide video network system, online learning using the CANVAS course management system, and face-to-face learning opportunities.
- d. Training will occur when most instructors are on contract. Additionally, events such as the Postsecondary Summer Conference may be utilized whenever possible for new curriculum training.
- e. Facilities information will be included.
- f. Training budget will be developed and submitted to the Director of Curriculum and Instruction.
- g. Agenda will be developed based on the training objectives and will include logistical information (title of training, times, locations, date, etc.) and training objectives.
- h. Presenters will be selected based on subject area expertise.
- i. Evaluation Criteria and Surveys.

2. Curriculum Content Professional Development Catalog

An electronic training and professional development opportunities will be published on the Office of Curriculum and Instruction website. Professional Development opportunities will be sent to the CCTO listserv address from the Director of Curriculum and Instruction/ Assist Director of Professional Learning and will be posted to the MCCB Website.

3. Evaluation

The New Curriculum Training Meetings will be evaluated and results discussed to impact future meetings.

H. Implementation & Evaluation Of Curriculum Effectiveness

In an effort to reach goals, improve our results, become more competitive by aligning our plans, processes, decisions, people, actions, and results, the Office of Curriculum and Instruction will continuously examine our processes, products, and results.

1. Student Learning and Progress

The following student learning and progress indicators will be examined:

- a. Student enrollment.
- b. Perkins Data.
- c. Student employment retention and wage earnings in employment.

2. Internal and External Customer Feedback

An annual survey will be administered to the CCTODA members and Workforce Directors to evaluate the quality of work products and project management (ex. Communication, process, etc.).

I. Proposed Curriculum Revision/Development Plan

January	Presentation of Fall Curricula to Board for Approval Spring Curriculum Preliminary Work Research-Based Design Review of Student/Participant Data Spring Meeting Planning
February	Collect Industry Data Advisory Council Meetings Business and Industry Pre-Revision Development Survey Curriculum Writing Team Meetings Pre-writing Team Meeting (virtual) Writing Team Meeting (face-to-face) Post-writing Validation Team Meeting (virtual) College and Industry Validation Survey Annual State-wide Articulation Agreement Meeting
March	Collect Industry Data Continued Curriculum Writing Team Meetings Continued Creating Futures Conference

April	Finalize Spring Documents Internal Evaluation Editing Board Material Planning for Curricula-based Professional Development Regional Collaboration Meetings
May	National Certification and Accreditation Standards Review Curricula-based Professional Development Presentation of Spring Curricula to Board for Public Comments
June	Spring Curricula APA Fall Curricula Preliminary Work Continued Research-Based Design Review of Student/Participant Data Spring Meeting Planning Summer Curriculum-Based Professional Development Offerings
July	Presentation of Spring Curricula to Board for Approval Fall Curricula Preliminary Work Continued Summer Curriculum-Based Professional Development Offerings
August	Summer Conference Faculty, Staff, and Administrator Input Survey Curriculum-Based Professional Development Offerings Collect Industry Data Advisory Council Meetings Business and Industry Pre-Revision Development Survey Curriculum Writing Team Meetings
	Pre-writing Team Meeting (virtual) Writing Team Meeting (face-to-face) Post-writing Validation Team Meeting (virtual) College and Industry Validation Survey
September	Collect Industry Data Continued Curriculum Writing Team Meetings Continued
October	Finalize Fall Documents Internal Evaluation Editing Board Material Planning for Curricula-based Professional Development to be offered in Spring Semester Regional Collaboration Meetings

November	Workforce Summit Presentation to Board Curriculum Out for APA National Certification and Accreditation Standards Review Presentation of Fall Curricula to Board for Public Comments
December	Perkins Data Review Final Board Approval Set Next Curricula to be Revised APA



FACULTY CREDENTIALS

- Guidelines -

Standard 6.2.a (*Faculty qualifications*) of the *Principles of Accreditation* reads as follows:

For each of its educational programs, the institution justifies and documents the qualifications of its faculty members.

When an institution defines faculty qualifications using faculty credentials, institutions should use the following as credential guidelines:

- a. Faculty teaching general education courses at the undergraduate level: doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).
- b. Faculty teaching associate degree courses designed for transfer to a baccalaureate degree: doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).
- c. Faculty teaching associate degree courses not designed for transfer to the baccalaureate degree: bachelor's degree in the teaching discipline, or associate's degree and demonstrated competencies in the teaching discipline.
- d. Faculty teaching baccalaureate courses: doctorate or master's degree in the teaching discipline or master's degree with a concentration in the teaching discipline (minimum of 18 graduate semester hours in the teaching discipline).
- e. Faculty teaching graduate and post-baccalaureate course work: earned doctorate/terminal degree in the teaching discipline or a related discipline.
- f. Graduate teaching assistants: master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline, regular in-service training, and planned and periodic evaluations.

*Approved: College Delegate Assembly, December 2006
Updated for Revised Principles: April 2018*

**STATEWIDE
ARTICULATION AGREEMENTS
FOR
CAREER & TECHNICAL EDUCATION**



Spring 2016

Introduction

A statewide articulation meeting was held on Thursday, March 29th, 2007 at Mississippi State University's Bost Extension Center. The meeting was facilitated by representatives from Mississippi Department of Education (MDE), the Mississippi Community College Board (MCCB), the Chief Career-Technical Officers and Deans Association (CCTODA), and staff of the Research & Curriculum Unit (RCU) of Mississippi State University. Approximately 120 secondary and postsecondary faculty from various programs participated in the day-long event, designed to help identify program areas with potential for articulated credit.

Along with various facilitators from the MCCB, CCTODA, MDE and RCU, a minimum of two postsecondary faculty members and one secondary faculty member from each Career & Technical Education program met to compare curricula and course competencies in order to determine if potential for articulated credit existed. Some programs were unable to find sufficient commonality to recommend articulated credit. However, faculty members and facilitators did recommend articulations in 54 unduplicated CTE courses from 33 secondary vocational programs and 50 postsecondary CTE programs.

Those recommendations were submitted to the CCTODA. The Deans asked for their comments and were also asked to share the recommendations with their faculty and generate faculty feedback. The comment period lasted for six weeks, at which time the recommendation and comments were considered and voted upon by the CCTODA. Those recommendations then went to the Mississippi Association of Community and Junior Colleges (MACJC), which is the association for community and junior college presidents in the State. The MACJC voted to recommend the articulations to the Mississippi Community College Board, which took action to approve the Statewide Articulations on June 15, 2007.

Beginning in 2008, in an effort to preserve validity and relevance of all statewide articulations, curriculum development and revision teams assumed responsibility for reviewing secondary program competencies and postsecondary course competencies, and for making recommendations on existing or potential statewide articulations. Newly proposed articulation agreements are now listed in the Preface section of each postsecondary draft curricula, and the curriculum validation process is now the venue for comment on those changes prior to approval. The Research Synopsis also states that the articulation agreement (if it is an addition or a modification) will be effective when the college implements the revised curriculum.

As described in the federal Perkins Act of 2006, a statewide articulation provide[s] students with the opportunity for a non-duplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, or a degree.” For students, it provides a career path into a postsecondary CTE program. For colleges, it provides an effective tool for recruiting high school CTE students into community or junior college CTE programs. Attached is a table of the 2009-2010 Statewide Articulations, along with the guidelines on statewide articulated credit.

During 2009-2010 a statewide articulation committee was developed to enhance and improve the existing process for awarding articulated credit. The committee consisted of Career and Technical Deans, Tech Prep Coordinators, Admission Officers, Mississippi Department of Education staff, Superintendents, and MCCB staff. Meetings were held on November 6, 2009; December 7, 2009; January 25, 2010; March 3, 2010; and April 7, 2010 at the Mississippi Education Research Center. The recommended changes were presented to the CCTODA on December 11, 2009 and February 3, 2010 for suggested recommendations and approval.

The college's technology staff will play a pivotal role in developing the software programming code to capture the data; and the registrars and admission directors will be critical to the identifying, awarding, and transcribing the articulated course(s). Therefore, the recommended revisions to the current articulation process were also presented for recommendation to the registrars and admission directors during the Mississippi Association of Collegiate Registrars and Admission Officers

(MACRAO) conference on April 12, 2010. The revisions were also presented to the community college technology directors on April 22, 2010 at their annual meeting.

The recommended revisions to the current articulation process were developed to clarify definitions of articulation, define and distinguish between Dual Enrollment and Dual Credit, develop a formal process for articulated credit transfer from high school to community college, eliminate time processing and transcribing barriers, and to market articulated programs. More specifically the following recommendations were made to enhance the current articulation agreement:

1. Review old and ensure new course competencies are in complete alignment. This process will be improved due to MDE agreeing to align the secondary curriculum revision schedule with postsecondary. Competency alignment will be a function of the RCU.
2. Ensure that colleges are not requiring students to retake articulated courses, except in instances where the student opts to retake the course.
3. Establish a new tracking process to assist MDE, community colleges, and the students.

The process is as follows.

- The community college will adopt the MSIS number from secondary as one method to track students. This number provides a unique identifier for all public k-12 students for longitudinal data tracking.

- MDE will create a certificate and send to the students that qualify for articulated credit; which shall contain the student's MS-CPAS2 scores and applicable articulated courses.
 - The MS-CPAS2 score of eligible completers (scoring 70% or better) and articulated course will be identified on the student's high school transcript for easy recognition and data entry for community college personnel. The RCU will be responsible for providing labels to MDE for each student that qualifies for articulated credit to place on student's transcript. The labels will contain each student's name, MSIS number, MS-CPAS2 scores, CIP code, district number, and secondary pathway name.
4. Eliminate the 12 hour non-developmental requirement to allow the credit to be transcribed immediately upon college enrollment and to allow students the flexibility to take additional courses.
 5. MDE and the community college will assist with more concentrated marketing of the value and process for receiving articulated credit.

An articulation committee was reconvened in July 2012 to update the articulation document . The changes made reflect the future of articulation and were agreed upon by all members. The secondary pathways have been recently updated and many pathway names have changed, which is noted in the secondary pathway column in the chart below. A note has been made in several secondary areas that the pathway will no longer be offered after June of 2013. On August 17, 2012, the Mississippi Community College Board approved the revised articulation agreement to post to APA for public review and comment. After receiving no substantive changes, the Mississippi Community College Board approved the adoption of the Final Document during the October 19, 2012 Board meeting.

The CTE Statewide Committee reconvened in the fall of 2014 to review and update the articulation guidelines. The committee discussed the following topics:

1. the provisions of the statewide articulation document relative to eligibility requirements for awarding MS-CPAS2 articulated credit,
2. the recognition of national certification as an assessment,
3. the expansion of MS-CPAS2 label information for improved data reporting of articulated credit,
4. the awarding of secondary CTE credit toward academic college and/or CTE program credit,
5. the best practices in dual credit/enrollment programming, and
6. the updated alignments in PS and CTE curricula.

The committee recommended changes to the MS-CPAS2 labels to include national certification assessments given at the secondary level intended to demonstrate a validation of student program knowledge and competencies as well as provide PS CTE faculty and administrators additional information for evaluating student knowledge and skill sets.

The committee initiated discussions of the application of secondary CTE credit toward postsecondary academic credit to include the development of a CTE Learning and Life Skills (LLS) credit. Similarly, the committee discussed the application of secondary CTE credit toward postsecondary CTE elective program credit (3 hours of LLS academic credit or CTE elective program credit/ CTE credit for one-year completers and 6 hours of LLS academic credit or CTE elective program credit for two-year completers). The committee determined there should be input from the state's chief academic officers and CTE deans before any final recommendation could be made and included in the policy document.

The committee further discussed the significance of dual credit/enrollment as an issue of interest with secondary institutions, colleges, policymakers, and the public. After exploring dual enrollment/credit programming for best practices at the state and national level, the committee determined each college should continue to collaborate with local school

districts to build programs suitable to their CTE demographic needs. The MCCB and MDE identified a dual credit/enrollment training model within the state, and introduced the model at spring 2015 PS and Secondary administrator's regional collaboration meetings. The model provided for MDE to maintain Average Daily Attendance (ADA) and MCCB to gain Full-Time Equivalency (FTE) for each dual credit student taking CTE college courses in a secondary setting. This model addressed the necessity of evaluating secondary instructor credentials by PS CTE deans for SACSCOC accreditation purposes so that secondary instructors might deliver college curriculum in their secondary classrooms. Also, depending on the amount of PS CTE courses offered through any secondary school, the partnering community college would need to pursue substantive change notification through SACSCOC as well. The presentation of the training model to the state audiences was intended to open a dialogue about the broader possibilities for dual credit/enrollment programming.

The committee concluded its 2014 session with a draft statewide articulation agreement document that contained proposed updates to the articulation credit award eligibility requirements; added fields on the MS-CPAS2 transcript label that included additional data reporting fields; ignited interest in the awarding of secondary CTE credit to postsecondary academic and/or CTE elective program credit; and actions that resulted in statewide training for dual credit/ enrollment modeling. The 2014 draft did not include updated CTE curricula alignments. While revised, the 2014 draft was not submitted to the MACJC for approval.

The CTE Statewide Committee convened again spring and summer 2016 to continue the discussion of the issues aforementioned and to make a final recommendation of the articulation of secondary CTE credit to PS CTE programs for approval by MACJC. During a virtual meeting of members of the CCTODA held July 29, 2016, those present discussed several issues to include the

70% score on the MS-CPAS2 as the eligibility threshold for articulation of credit to a postsecondary CTE program. While wanting to create more opportunities for access to articulated credit for secondary students in postsecondary programs, some members were concerned with making sure that these CTE students would be successful in their postsecondary program if they articulated credit as proposed. The consensus of the meeting was to pilot the 70% score for 2 years and track student success. It was further proposed that in fall of 2018 CCTODA should examine data for student success and retention for these students and determine to keep the 70% score for eligibility.

Guidelines on Statewide Articulated Credit

Eligibility

- **To be eligible for articulated credit, a student must** meet one of the following requirements: ▪ Complete an articulated Secondary Career and Technical Education (CTE) Pathway and score a **70** percent (average score from Year 1 and Year 2 assessment and Performance based Assessment if applicable) or higher on the Mississippi Career Planning and Assessment System (MS-CPAS2) in their secondary program of study.
- Participate in a Secondary CTE and successfully pass an approved, aligned national certification or credential.
- **To be awarded articulated credit, a student must:**
 - Enroll in the community or junior college within 18 months of graduation.
 - Articulated courses are transcribed immediately upon enrollment at a community college.

How Student Credit will be Documented and Shared with Colleges:

A Student Articulation Attainment Data file will be developed. The following guidelines will be followed:

1. The RCU will generate the Student Articulation Attainment Data file. Only students who are eligible for articulated credit will be included in the Student Articulation Attainment Data file.
2. The data file will be password accessible for the following Postsecondary CTE Administrators two weeks after the close of testing. Pending MDE approval, college registrars and/or

admissions officers as appropriate to the institution will be included in the distribution of the data file.

3. Fields of a Downloadable Student Articulation Skill Attainment File

- a. Secondary Career Pathway Name
- b. Secondary Career Pathway CIP Code
- c. College Course(s) Numbers
- d. College Course(s) Name
- e. MSIS Number
- f. First Name
- g. Middle Name
- h. Last Name
- i. Date of Birth
- j. Technical Assessment Score (MS-CPAS2)
- k. National Assessment Name

Note: It is anticipated that this data will flow through the e-transcript process once approved thereby eliminating the need for a Student Articulation Data File.

Transcripting of Articulated Credit

- Registrars' office will access the student data file to transcript the articulated credit.
- Articulated credit will be transcribed immediately upon college enrollment.
- No grade will be given on the transcript for articulated courses, only hours granted will be transcribed (thus resulting in no change in quality points).

Time Limit

- MS-CPAS2 scores or national certification or credential will be accepted to demonstrate competencies for up to 18 months after high school graduation.

Cost

- No costs will be assessed on hours earned through articulated credit.

Impact on Local Articulations

- Statewide articulations are supplemental to any articulation agreements established between a college and a local school or district. Statewide articulations provide additional avenues for students to obtain articulated credit. They do not nullify any existing local agreements.

Implementation as a Pilot

- The eligibility criteria as outlined above will be piloted for a 2 year period.
- Fall semester of 2018, student success and retention data for students articulating credit with the eligibility criteria as outlined will be examined.
- The committee will make a recommendation to keep the proposed eligibility criteria or make a recommendation to change the eligibility criteria.

2015-2016 Statewide Articulation Agreement

Statewide articulations are subject to change as secondary and postsecondary curriculum revisions occur. All articulations listed in this document are effective as of January 31, 2016 unless otherwise noted.

SEC Pathway	PS Program	PS Courses
S 2010 Science of Agricultural Animals (CIP 01.0901)	PS 2015 Ag Business Mgmt Technology Cluster Animal Science Technology-Beef Option (CIP 01.0302) Animal Science Technology-Poultry Option (CIP 01.0907)	AGT 1214 - Applied Principles of Animal Production
2010 Science of Agricultural Plants (CIP 01.1101)	PS 2015 Ag Business Mgmt Technology Field Crops (CIP 01.0304)	AGT 1313 - Applied Principles of Plant Production
2010 AEST Concepts of Agriscience(CIP: 01.9999)	PS 2015 Ag Business Mgmt Technology Field Crops (CIP 01.0304)	AGT 1111 – Survey of Argicultural Technology
2010 Science of Agricultural Environment (CIP: 03.0104)	PS 2015 Ag Business Mgmt Technology Field Crops (CIP 01.0304)	AGT 1714 Applied Soils – Conservation and Use
S 2010 Agricultural Mechanics and Equipment/Machine Technology Operation - (CIP: 01.0201)	PS 2015 Ag Business Mgmt Technology Field Crops (CIP 01.0304)	AGT 1111 – Survey of Argicultural Technology
S 2012 Agriculture & Natural Resources (CIP 01.0003)	PS 2015 Ag Business Mgmt Technology Cluster Agricultural Business/Agribusiness (CIP 01.0102) Animal Science Tech – Beef option (CIP 01.0302) Animal Science Tech – Poultry Option	AGT 1111 – Survey of Argicultural Technology

	<p>(CIP 01.0907)</p> <p>Field Crops (CIP 01.0304)</p> <p>Precision Agriculture Technology (CIP 01.1105)</p>	
<p>S 2014 Agriculture Technology and Mechanical Systems (Core) – (CIP 01.0205)</p>	<p>PS 2015 Ag Business Mgmt Technology Cluster</p> <p>Agricultural Business/Agribusiness (CIP 01.0102)</p> <p>Animal Science Tech – Beef option (CIP 01.0302)</p> <p>Animal Science Tech – Poultry Option (CIP 01.0907)</p> <p>Field Crops (CIP 01.0304)</p> <p>Precision Agriculture Technology (CIP 01.1105)</p>	<p>AGT 1111 – Survey of Agricultural Technology</p>

<p>S 2015 Horticulture (CIP: 01.0601)</p>	<p>PS 2010 Horticulture Technology Cluster:</p> <p>Landscape Management (CIP 01.0601)</p>	<p>HLT 1213 - Applied Principles of Plant Propagation</p> <p>AGT 1313 - Applied Principles of Plant Production</p>
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<p>S 2008 Business Fundamentals (CIP: 52.0101)</p> <p>S 2016 Business Fundamentals Will be posted to the RCU website by May 31, 2016.</p>	<p>PS 2016 Business Technology Cluster</p> <p>Administrative Assistant (CIP 52.0401)</p> <p>Medical Administrative Services (CIP 51.0799)</p>	<p>BOT 1213 - Professional Development</p> <p>BOT 1273 – Intro to Microsoft Office</p> <p>CPT 1323 – Survey of Microcomputer Apps</p>
<p>S 2010 Simulation and Animation Design (CIP 50.0411)</p> <p>S 2016 Simulation and Animation Design (CIP 50.0411) Will be posted to the RCU website by May 31, 2016.</p>	<p>PS 2015 Entertainment Media-Technology Cluster</p> <p>Film and Video Technology (CIP 10.0201)</p> <p>Simulation and Animation Design (CIP 50.0411)</p>	<p>IMT 1114 - History of Gaming</p> <p>IMT 1414 Photography for Games</p> <p>IMT 1513 - Introduction to 3D Modeling</p> <p>ETT 1223 - Illustration and Artistic Rendering</p>
<p>S 2008 Management (CIP: 52.0204)</p> <p>S 2016 Management (CIP 520204) Will be posted to the RCU website by May 31, 2016.</p>	<p>PS 2016 Business Technology Cluster</p> <p>Administrative Office Technology (CIP 52.0401)</p> <p>Health-care Data Technology (CIP 51.0799)</p> <p>Accounting Technology (CIP 52.0302)</p> <p>Business Management Tech (CIP 52.0201)</p> <p>Computer Technology (CIP 52.0407)</p>	<p>BOT 1313 - Applied Business Math</p>

S 2008 Management (CIP: 52.0204) S 2016 Management (CIP 520204) Will be posted to the RCU website by May 31, 2016.	PS 2010 Banking and Finance Technology (CIP 52.0803)	BFT 1513 – Banking and Finance Math
S 2008 Management (CIP: 52.0204) S 2016 Management (CIP 520204) Will be posted to the RCU website by May 31, 2016.	PS 2015 Court Reporting Technology (CIP 22.0303)	BOT 1313 – Applied Business Math

S 2015 Healthcare and Clinical Services (CIP: 51.0000)	PS 2010 Health Information Technology (CIP 51.0707)	HIT 1213 – Medical Terminology
	PS 2015 Medical Assistant Technology (CIP 51.0801)	MET 1113 – Medical Terminology
	PS 2010 Health-care Assistant (CIP 51.3902)	HCA 1214 – Body Structure
	PS 2012 Surgical Technology (CIP 51.0909)	BOT 1613 – Medical Office Terminology I
S 2015 Collision Repair Technician (CIP: 47.0603)	PS 2011 Collision Repair Technology (CIP 47.0603)	ABT 1314 – Refinishing I
S 2012 Electrician (CIP 46.0302)	PS 2014 Electrical Technology (CIP 46.0302)	ELT 119(2-3) – Fundamentals of Electricity
	PS 2014 Industrial Mechanics and Maintenance Technology (CIP 47.0303)	CTE 1143 – Fundamentals of Construction and Manufacturing CTE 1153 – Machine Tool Mathematics

		IMM 1814 – Industrial Electricity Level 1
S 2012 Masonry (CIP 46.0101)	PS 2011 Brick, Block, & Stone Masonry (CIP 46.0101)	BBV 1313 – Tools, Equipment, and Safety
	PS 2011 Commercial/Residential Maintenance (CIP 46.0401)	CRM 1313 – Masonry
S 2015 Metal Fabrication (CIP 48.0501)	PS 2010 Precision Manufacturing and Machining Technology (CIP 48.0501)	MST 111(4-6) – Power Machinery I
	PS 2015 Automotive Machinist Technology (CIP 47.0615)	AUT 1116 – Fundamentals for Automotive Machinists
Secondary CONTREN Learning Series: S 2012 Carpentry (CIP 46.0201) S 2012 Metal Fabrication (CIP 48.0511) S 2012 Electrician (CIP 46.0302) S 2016 Heating and Air Cond. (CIP 47.0201)	PS 2016 Construction Engineering Technology (CIP 15.1001)	CON 1113 – Survey of Modern Construction
	PS 2014 HVAC (CIP 47.0201)	ACT 1003 - Introduction to Heating and Air Conditioning Tech
	PS Industrial Maintenance (CIP 47.0303)	CTE 1143 Fundamentals of Construction and Manufacturing
	PS 2014 Welding & Cutting Tech (CIP 48.0508)	
	PS 2015 Carpentry (CIP 46.0201)	

S 2016 Industrial Maintenance (CIP 47.0303)	PS 2014 Electrical Technology (CIP 46.0302)	
S 2012 Masonry (CIP 46.0101)		
S 2014 Welding (CIP 48.0508)		

Secondary Learning Series: S 2012 Carpentry (CIP 46.0201) S 2012 Electrician (CIP 46.0302)	PS 2011 Commercial/Residential Maintenance (CIP 46.0401) Building/Prop Maintenance and Mgt	CRM 1214 – Carpentry CRM 1514 – Electrical
S 2016 Heating, Ventilation, and Air Conditioning (CIP 47.0201)	PS 2014 HVAC (CIP 47.0201)	ACT 1124 – Basic Compression Refrigeration
S 2016 Industrial Maintenance (CIP 47.0303) S 2015 Carpentry (CIP 46.0201) S 2014 Welding (CIP 48.0508) S 2012 Electrical (CIP 46.0302)	PS 2014 Industrial Mechanics and Maintenance Technology (CIP 47.0303)	IMM 1113 – Industrial Maintenance Core and Safety IMM 1734 – Maintenance Welding and Metals IMM 1814 – Industrial Electricity Level I
S 2015 Precision Machining (CIP 48.0503)	PS 2010 Precision Manufacturing and Machining Technology (CIP 48.0501)	MST 111(4-6) – Power Machinery I

	PS 2010 Tool and Die Technology (CIP 48.0507)	MST 111(4-6) – Power Machinery I
	PS 2014 Industrial Mechanics and Maintenance Technology (CIP 47.0303)	IMM 1224 – Power Tool Applications
	PS 2015 Automotive Machinist Technology (CIP 47.0615)	AUT 1116 – Fundamentals for Automotive Machinists
S 2015 Carpentry (CIP 46.0201)	PS 2011 Commercial/Residential Maintenance (CIP 46.0401)	CRM 1214 – Carpentry
S 2014 Welding Technology/Welder (CIP 48.0508)	PS 2014 Welding & Cutting Technology (CIP 48.0508)	WLT 1173 Introduction to Welding and Safety
	PS 2014 Industrial Maintenance Trades (CIP 47.0303)	IMM 1734 – Maintenance Welding and Metals
	PS 2011 Commercial/Residential Maintenance (CIP 46.0401) Bldg Prop Maint & Mgt	CRM 1713 – Welding
S 2016 Architecture and Drafting (CIP 15.1301)	PS 2015 Drafting & Design Technology Cluster: Architectural Engineering Technology (CIP 15.0101) General Drafting (CIP 15.1301) Geographical Information Systems (CIP 45.0702)	DDT 1163 – Engineering Graphics
	PS 2010 Civil Engineering Technology (CIP 15.0201)	DDT 1163 Engineering Graphics DDT 1313 – Computer Aided Design I

S 2013 Culinary Arts (CIP 01.0003)	PS 2016 Hospitality & Tourism Cluster Hospitality Administration/Management (CIP 52.0901) Travel and Tourism (CIP 52.0903) Culinary Arts Technology (CIP 12.0500)	HRT 121(3-4) Safety and Sanitation
	PS 2008 Food Production & Management Tech (CIP 12.0508)	FPV 1213 – Food Service Sanitation FPV 1113 – Fundamentals of Operational Procedures in Food Service
S 2010 Early Childhood Education (CIP 19.0709)	PS 2015 Early Childhood Education Technology (CIP 19.0709)	CDT 1113 – Early Childhood Profession
S 2008 Marketing (CIP 52.1801) S 2016 Marketing (will be available on RCU website by May 31, 2016)	PS 2012 Business and Marketing Management Related Technology (CIP 52.1401 Marketing/Marketing Mgt General)	MMT 1113 – Marketing I MMT 1313 – Personal Selling (available after Art courses are validated by PS CTE)
	PS 2012 Fashion Marketing Technology (CIP 52.1902)	MMT 1113 – Marketing I MMT 1313 – Personal Selling (available after Art courses are validated by PS CTE)
	PS 2016 Banking and Finance Technology (CIP 52.0803)	BFT 1513 – Banking and Finance Math

S 2014 Engineering (CIP 14.0101)	PS 2011 Civil Engineering Technology (CIP 15.0201)	DDT 1163 Engineering Graphics DDT 1313 Computer Aided Design I
S 2014 Automotive Service Technician (CIP 47.0604)	PS 2016 Construction Equipment Operation (CIP 49.0202)	CEV 1313 – Service and Preventive Maintenance I
S 2014 Lodging, Hospitality and Tourism Management (CIP 52.0901)	PS 2016 Hospitality & Tourism Cluster Hospitality Administration/Management (CIP 52.0901) Travel and Tourism (CIP 52.0903) Culinary Arts Technology (CIP 12.0500)	HRT 1123 – Introduction to Hospitality and Tourism Industry

S 2014 Teacher Academy (CIP 13.0101)	PS 2015 Early Childhood Education Technology (CIP 19.0709)	CDT 1113 – Early Childhood Profession
S 2016 Information Technology (CIP 11.0101)	Needs Alignment to PS program and courses	Needs PS course identification
S 2014 Digital Media Technology (CIP 09.0702)	Needs Alignment to PS program and courses	Needs PS course identification
S 2014 Food Products (Meats) (CIP 01.0401)	Needs Alignment to PS program and courses	Needs PS course identification
S 2014 Forestry (CIP 03.0511)	PS 2011 Forestry Technology (CIP 03.0511)	Needs PS course identification
S 2013 Energy Technology (CIP 14.1001)	Needs Alignment to PS program and courses	Needs PS course identification