APPENDIX A

Rationale for development of Programs of Study:
The Carl D. Perkins Career and Technical Education Act of 2006 was signed into law on August 12, 2006. The new Act provides an increased focus on the academic achievement of career and technical education students, strengthen the connections between secondary and postsecondary education, and improve state and local accountability.

Career and Technical Programs of Study described in this act are programs which may be adopted by local educational agencies and postsecondary institutions to be offered as an option to students (and their parents as appropriate) when planning for and completing future coursework, for career and technical content areas that:

(A) incorporates secondary education and postsecondary education elements;
(B) includes coherent and rigorous content aligned with challenging academic standards and relevant career and technical content in a coordinated, nonduplicative progression of courses that align secondary education with postsecondary education to adequately prepare students to succeed in postsecondary education;
(C) may include the opportunity for secondary education students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits; and
(D) lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.

Implementation strategies and plans have been discussed in small work groups led by the Michigan Department of Labor and Economic Growth, Community College Services Unit and several community colleges. Each community college submitted an annual application that included an assurance that Programs of Study are aligned between Michigan’s Department of Education Career and Technical Preparation Mastery Levels and the College’s program outcomes, are State approved for Perkins and have articulated agreements with secondary education as applicable.

APPENDIX B

Programs of Study Rationale; Adults Re-entering the Community College:
The Council for Labor & Economic Growth (CLEG) and it’s Adult Learning Work Group found that one out of three working-age Michigan adults, 1.7M people, lacks the basic skills or credentials to attain a family-sustaining job and contribute to the state’s economy.

(A) According to Michigan community colleges, at least 60% of students entering these institutions require remediation prior to engaging in post-secondary education.
(B) Basic skills development is a major barrier for many who are seeking post-secondary credentials.
(C) The CLEG goal is to cut by 50% the number of Michigan workers lacking the basic skills or credentials needed to attain a family-sustaining job. Most Michigan workers will need a post-secondary credential to succeed.
(D) Adult learners have a widely varying life contexts and skill levels. This means our adult learning system must be flexible enough to reach learners where they are and help them advance from a broad range of beginning points.
(E) Achieving this goal will require an integrated response. State agencies and policies need to align in support of this goal, which requires increased investment in basic skills development spanning multiple funding sources, and regional partnerships that can cohesively design and deliver services.
Step 10: Consider the following optional elements over time.

- Student Orientation – how will your program of study be useful to new students?
- Labor Market information – to enhance understanding of what skills and education levels are needed for future hires.
- Student support services – what support services are needed for students in your program?
- Continue statistical analysis - to understand what factors are important for student success in your program.
- Communication Plan – develop methods to share information – College administration, potential students (high school and adults), MI Works clients and staff, secondary and postsecondary counselors.

For technical assistance and questions, contact the following:

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Jim Folkening, Manager, Community College Services
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7.8.09; 7.30.09; 8.3.09; 9.11.09; 10.1.09; 11.20.09; 1.11.10; 1.14.10
Step 7: External certifications earned at program completion.
  - Identify and verify external certification and assessments appropriate for the occupations within the program area (1P1).

Assessments/certifications earned at completion of program:
NOCTI - http://www.nocti.org/Jobready.cfm

Others used by a particular industry.

Step 8: Share work with other community college faculty.
  - Share your work with internal department faculty and administration, including counseling and advising.
  - Share/present your program of study and the development process with faculty in your discipline from other community colleges serving as a reference group.
  - Present your program of study at TRENDS in Occupational Studies Conference, October 2010.

Step 9: Plan for ongoing review.
  - Plan ongoing review of each program of study to include further refinement and evaluation over time.
  - Meet with business and industry for input and to share your work.
  - Meet with K-12 school districts; counselors, faculty, administration.
  - Meet with transfer institutions (if appropriate).
Step 4: Crosswalk the academic and technical knowledge and skills necessary to enter your program.

- With standards reviewed; develop a crosswalk of the academic foundational skills necessary to enter your program area.
- Identify necessary reading levels of text materials, particularly those utilized in the early courses of your program.
- Develop a crosswalk of the occupational knowledge and skills necessary to enter your program area. Determine what is taught vs. what is accomplished or is just exposure to a task.

What is a curriculum crosswalk? A curriculum crosswalk refers to a process used to cross reference or align the learning outcomes of the courses in a Program of Study to one or more local, state and national academic and technical standards. In essence it links or compares the high school curriculum to the postsecondary curriculum.

- Michigan
  Mastery levels grids by clusters.

- College and Career Transitions Initiative
  [http://www.careerclusters.org](http://www.careerclusters.org)
  Click on Resources (includes sample program of study, knowledge and skills chart, crosswalk examples, etc.)
  Sample program of study with crosswalk process.

Step 5: Align the standards to college coursework.

- Based on the crosswalks; determine which community college entry level courses would align (address the knowledge and skills) with these competencies. Look at the curriculum in total across all your program’s subject areas.
- If there is not alignment, identify the gaps.
- If there is duplication, secondary to postsecondary, identify the opportunity for articulated credits. (if appropriate)
- Identify the opportunity for dual enrollment courses in addition to the articulated courses. (if appropriate)

Step 6: Develop a Program of Study: Outline a non duplicative sequence of courses.

- Specify prerequisite requirements for students to be successful in the program area (include the reading levels needed).
- Sequence the content and learner outcomes of your program/courses into a course sequence that leads to a certificate, associate degree and/or transfer to a 4 year degree. Include the assessments and/or certifications earned at the completion of your program (1P1).

What is a program of study? A program of study is a sequence of instruction (based on recommended standards and knowledge and skills) consisting of coursework, co-curricular activities, work-site learning, service learning and other learning experiences. This sequence of instruction provides preparation for a career.
Step 3: Occupational/technical standards: What are the occupational/technical entry requirements for a student (K-12 and adult) entering your program?

  Outlines Michigan's curriculum standards for high school occupational programs (is organized by career clusters)
  
  Each secondary occupational program completed a gap analysis, rating their level of instruction N-4. Review of these is very useful for postsecondary faculty when determining the depth of instruction provided at the high school level. These may be obtained through the local school district, intermediate school district, or tech prep coordinator.

- Segmented documents: [www.mccte-fsu.org](http://www.mccte-fsu.org)
  Michigan's CTE program curriculum standards organized into 12 segments.

  1) Click on curriculum standards
  2) From list of pathways, select appropriate pathway
  3) Then select appropriate cluster
  4) Then click on segments in the menu on the right hand side
  5) Select overall segments. (Can be downloaded.)

- NOCTI: [http://www.nocti.org/Jobready.cfm](http://www.nocti.org/Jobready.cfm)
  Job Ready assessments measure the skills of an entry-level worker or an individual who has completed course work in a secondary or post-secondary career and technical program

- Career One Stop; Career Info Net
  Provides occupational information and profile including identification of the knowledge, skills and abilities necessary by occupation.

- Others???
Step 1: Identify intake/assessment to enter a program. Key to student success is identifying the pre-requisite knowledge and skills a student must possess prior to beginning an occupational program. Correlation of the entry assessment tools to occupational content is valuable information for faculty and students.

- Review high school state standards, Michigan high school academic curriculum standards and occupational curriculum standards.
- Identify the technical and academic entry level requirements, competencies and prerequisites for your program area. Use state standards as a resource. (ACT, SAT, Accuplacer, WorkKeys, technical entry requirements (NOCTI and others).
- For adult students, identify the college and adult learning assessment exam standards (TABE, CASAS), if appropriate.

Step 2: Academic standards: What are the academic entry requirements and assessments for a student (K-12 and adult) entering your program? Each college determines this entry requirement. There may be separate entrance requirements by program.

Entry level assessment—reading, writing, mathematics

  - Matches MI high school content expectations with ACT and WorkKeys assessments.
  - Section C = ACT college readiness (pages 43-52)
  - Section D = WorkKeys (pages 53 & 54)


  - Interpretation of test scores for the Accuplacer tests.

  - Average scores needed by career area in the following 3 areas:
    - Applied math =
    - Locating information =
    - Reading for information =


- CASAS (comprehensive adult assessment systems): [https://www.casas.org/home/index.cfm](https://www.casas.org/home/index.cfm)

  - Outlines K-12 core content area curricula: English language arts, mathematics, science and geography. (236 pages).

- Others??
This purpose of this resource guide is to outline a process and mechanism whereby each community college may develop appropriate Programs of Study that satisfy the 4 program requirements outlined by the Perkins Act (appendix A).

The outcomes of this work are:
1. Alignment of technical and academic competencies and assessments for career and technical programs high school to community college.
2. Identification of the prerequisite knowledge, skills and/or courses, and assessments required to be successful upon entering a college occupational program.

What is a PROGRAM OF STUDY? A program of study is a sequence of instruction (based on recommended standards and knowledge and skills) consisting of coursework, co-curricular activities, work-site learning, service learning and other learning experiences. This sequence of instruction provides preparation for a career. (www.careerclusters.org/definitions.php)

Developing your Program of Study:
With a team of program faculty (occupational and liberal arts, as appropriate)** use the following guide and resources to develop your content specialty’s Program of Study. The finished result will specify the prerequisite academic skills, knowledge and courses necessary to enter a postsecondary program and include a sequence of content and learner outcomes and courses that lead to a certificate, associate degree and/or transfer to a 4 year degree. The process does not necessarily need to be followed in the order listed, some tasks may occur concurrently depending on the number of program faculty available.

** Team makeup:
- Occupational faculty – consider adding a high school faculty person or an adjunct with high school experience.
- Academic support faculty most appropriate for the POS to be developed.
- Assessment staff and Developmental Education faculty

Additional resources:
- Admissions staff
- Staff with experience in adult learning initiatives