

Programs of Study: Local Implementation Readiness and Capacity Self-Assessment

A Tool for Local College and Career Readiness

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Background

The *Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV)* calls for states to offer programs of study (POS), which local educational agencies and postsecondary institutions may adopt as an option for students participating in career and technical education (CTE). Each local recipient of *Perkins IV* funds must offer at least one POS that, at a minimum:

- Incorporates and aligns secondary and postsecondary education elements;
- Includes academic and CTE content in a coordinated, non-duplicative progression of courses;
- Offers the opportunity, where appropriate, for secondary students to acquire postsecondary credits; and
- Leads to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.

Many states often use some level of local CTE program recognition or approval to determine local educational agency (LEA) eligibility for access and use of the Perkins federal funding for CTE program improvement. State CTE approval processes evolve over time and may have roots in earlier authorizations of the federal Perkins funding that did not include provisions for a defined program of study. The legislatively specified POS elements may not currently be incorporated into existing program approval processes used by states, in part because the elements are broadly defined and open to state and local interpretation. *Perkins IV* also provides states with the flexibility to establish their own criteria for approving CTE programs that qualify for federal Perkins funding support. As a result, programs of study offered within and among states may differ in structure because of a lack of uniform criteria used to establish and implement a program of study.

A program of study is a comprehensive, structured approach for delivering academic and career and technical education to prepare students for postsecondary education and career success.

*U.S. Department of Education
Operational Definition*

Although POS are intended as a singular program construct spanning secondary and postsecondary CTE studies, states typically have created separate approval processes for secondary providers and postsecondary providers. Often these stand alone; separate

approval processes contain few requirements for explicit program alignment and articulation between secondary and postsecondary educational levels.

Some CTE approval processes have focused on sequencing the technical coursework that comprises a POS, with less rigorous attention given to the associated CTE content. Without development and alignment of both academic and technical coursework suggested within a POS, there may be negative ramifications for high school students seeking to continue their training at a postsecondary institution, given the focus on college and career readiness. Students who lack requisite academic proficiency may need to complete remedial coursework prior to beginning their postsecondary CTE studies.

Programs of study extend the program outcomes desired for students to include the earning of an industry-recognized credential, a certificate, or a postsecondary degree. The POS becomes the sum of its parts, with a clear exit outcome and specific elements that are intended to lead toward that outcome.

The intent of this guidance is to clarify and offer suggested criteria for states to consider as they identify and certify whether a local POS provider is ready and has sufficient capacity for full POS implementation. Implementation of the intentional POS structure that incorporates the statutory requirements will be confronted with a need to develop a number of supporting elements. These supporting elements will aid and support POS implementation by addressing the system elements that comprise a fully developed program of study. A self-assessment of these supporting elements makes up the content contained in this POS readiness and capacity review guide. Each of the elements are addressed individually, but work in concert with each other to help support full implementation of a program of study.

Perkins IV POS Requirements

Eligible state agencies may request local recipients to submit documentation to illustrate sufficient size, scope, and quality for a local CTE program to be eligible for Perkins funding support. Stand-alone approval processes for a secondary CTE program or a postsecondary CTE program may not be sufficient to determine if the Perkins requirements for a program of study are present. Current program approval processes may need to be modified or enhanced for state staff to assure local programs of study are sufficiently meeting *Perkins IV* programs of study requirements.

As specified by the Act, there are four statutory requirements that define a program of study. These requirements are:

A. Incorporate and align secondary and postsecondary education elements

There is an expectation that local providers submit the design for a single POS—spanning the secondary and postsecondary levels. This expectation may suggest an approval process that is different from a state’s approval process for a stand-alone secondary or postsecondary CTE program. Stand-alone approval processes may not typically require the documentation of alignment across sectors, or within sectors between academic and technical coursework.

Submission of evidence might be requested to assure the application reflects deliberate planning and alignment between the secondary and postsecondary levels. One such example would be the requirement that a secondary and/or postsecondary provider submit a completed POS template illustrating how the secondary CTE program sequence aligns with the postsecondary credential, certificate, or degree CTE program. Examples of such a template can be viewed at www.careerclusters.org.

B. Include academic and CTE content in a coordinated, non-duplicative progression of courses

Documentation for this element might illustrate how a planned sequence will not result in any duplication of coursework for a student participating in a POS. The academic con-

tent within the POS might show how the program will enable a secondary student to meet the state's requirements for high school graduation as well as attain the necessary academic and technical knowledge and skills to demonstrate college and career readiness.

At the postsecondary level, the program of study should illustrate how a student will satisfy the general education requirements for the POS-related credential, certificate, or degree. An example of a coordinated, non-duplicative progress of courses may be illustrated with the same POS template that is used to document evidence of secondary and postsecondary elements. A single POS template could satisfy documentation for both the alignment of the secondary and postsecondary sectors and illustrate the coordinated, non-duplicative progression of courses.

C. Offer the opportunity, where appropriate, for secondary students to acquire postsecondary credits

Through the alignment of the secondary and postsecondary levels and in an attempt to provide a non-duplicative progression of courses, agreements may be forged between institutions to offer college credit to secondary students through high school courses that meet postsecondary requirements. These concurrent or dual credit opportunities may be illustrated through a coding scheme on the POS template so the opportunity to earn college credit in high school is explicit to the student. The concurrent or dual credit agreements could be further documented by having the applicant submit copies of institutional-level agreements rather than individual course-to-course articulation agreements. The institutional-level agreements may represent a number of individual course articulations, but establish an "umbrella" agreement to cover the policy-level acceptance of the credit articulation agreement by the chief academic officers at both the secondary and postsecondary levels. An example of such an agreement may be found in the appendix of this document.

D. Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree

A POS application may want to include explicit evidence identifying the credential, certificate, and degree opportunities that may exist upon completion of the program of

study. Local applicants should be encouraged to illustrate multiple POS exit points, if appropriate. The level of detail required by the state approval agency may vary, but should, at a minimum, list by name the credential, certificate, and/or degree opportunities on a POS template. Credential, certificate, and degree information may also document the level of career guidance information available to students participating in a POS. When the state approval agency is fostering POS alignment with high-skill, high-wage, high-demand career fields, the types of exit awards for the POS may be important information for the student and the employer.

POS Design Framework—*Local Readiness and Capacity Self-Assessment*

To support states in developing POS that address each of the required elements identified in *Perkins IV*, the U.S. Department of Education, Office of Vocational and Adult Education (OVAE), has issued a design framework to clarify and define the four statutory POS requirements in the Act. The POS framework contains 10 supporting elements that are viewed by CTE practitioners as instrumental for creating and implementing a high-quality, comprehensive POS. The design framework can provide a useful quality assurance marker for states seeking to promote local development of consistent POS that comply with Congressional intent and promote program improvement within Perkins-funded programs. This document provides suggested readiness and capacity guidance to which states may wish to refer when providing technical assistance to local POS developers and reviewing state CTE program approval processes.

This POS design framework, issued in early 2010, is the foundation for guidance and a self-assessment of local POS readiness and capacity. The implementation examples offered in the appendix for each of the 10 framework elements are actual state and local approaches to illustrate current practice and are not intended to designate best practices. The element characteristics listed on each of the self-assessment templates may serve as a set of quality indicators to gauge program of study implementation readiness and capacity, both at the state and local levels. Some of the quality indicators as currently constructed may be better suited to either a state application or a local application, but can be adapted for use at either level, if desired.

The use of a self-assessment may be helpful in determining capacity for local POS implementation and readiness for state POS approval. Consideration of each element within the POS framework can foster stakeholder conversation and reflection on the status of local readiness and capacity for full POS implementation. Each of the elements has a pivotal role to play with POS development and implementation. They are not independent of each other nor are they of equal priority. POS developers and implementers may use the capacity and readiness self-assessment for guidance in determining which of the elements are the most pressing for local consideration. The tool is intended for planning and reflection as local CTE providers develop a POS in conjunction with POS partners.

The POS framework supporting elements can be viewed as a scaffold to strengthen the four statutory POS elements. One way to view the supporting elements is to associate

them with a particular POS required element. The matrix below attempts to illustrate a relationship between the required elements and the framework supporting elements. An individual supporting element may not be exclusive to a Perkins required element. For example, professional development may be needed, and desired, to support several of the POS required elements. Another example may be the need for policies to support secondary students receiving postsecondary credit.

Perkins POS Required Elements	POS Framework Supporting Elements
Incorporate and align secondary and postsecondary education elements	<ul style="list-style-type: none"> • Legislation and Policies • Partnerships
Include academic and CTE content in a coordinated, non-duplicative progression of courses	<ul style="list-style-type: none"> • Course Sequences • College and Career Readiness Standards • Teaching and Learning Strategies • Guidance Counseling and Academic Advisement
Offer the opportunity, where appropriate, for secondary students to acquire postsecondary credits	<ul style="list-style-type: none"> • Credit Transfer Agreements • Professional Development
Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree	<ul style="list-style-type: none"> • Technical Skill Assessments • Accountability and Evaluation Systems

A full description of the POS framework support elements is contained in the published POS Design Framework and can be downloaded from the Perkins Collaborative Resource Network (PCRN) at: <http://cte.ed.gov/nationalinitiatives/rpos.cfm>. The design framework identifies the POS supporting elements as:

1. LEGISLATION AND POLICIES

Federal, state, and local legislation or administrative policies promote POS development and implementation.

Effective legislation and policies should:

- Provide for state and/or local funding and other resources, such as professional development and dedicated staff time, for POS development.
- Establish formal procedures for the design, implementation, and continuous improvement of POS.
- Ensure opportunities for any secondary student to participate in a POS.
- Require secondary students to develop an individual graduation or career plan.
- Provide resources for long-term sustainability of POS.

2. PARTNERSHIPS

Ongoing relationships among education, business, and other community stakeholders are central to POS design, implementation, and maintenance.

Collaborative partnerships should:

- Create written memoranda of understanding that elaborate the roles and responsibilities of partnership members.
- Conduct ongoing analyses of economic and workforce trends to identify statewide (or regional) POS to be created, expanded, or discontinued.
- Link into existing initiatives that promote workforce and economic development, such as sector strategies and other activities supported by the Workforce Investment Act.
- Identify, validate, and keep current the technical and workforce readiness skills that should be taught within a POS.

3. PROFESSIONAL DEVELOPMENT

Sustained, intensive, and focused opportunities for administrators, teachers, and faculty foster POS design, implementation, and maintenance.

Effective professional development should:

- Support the alignment of curriculum from grade to grade (9–12) and from secondary to postsecondary education (vertical curriculum alignment).
- Support the development of integrated academic and career and technical curriculum and instruction (horizontal curriculum alignment).
- Ensure that teachers and faculty have the content knowledge to align and integrate curriculum and instruction.
- Foster innovative teaching and learning strategies.

4. ACCOUNTABILITY AND EVALUATION SYSTEMS

Systems and strategies to gather quantitative and qualitative data on both POS components and student outcomes are crucial for ongoing efforts to development and implement POS.

Well-designed accountability and evaluation systems should:

- Include the “10 Essential Elements of a State Longitudinal Data System” identified by the Data Quality Campaign.¹
- Provide for administrative record matching of student education and employment data (e.g., Unemployment Insurance (UI) wage records).
- Yield valid and reliable data on key student outcomes (indicators) referenced in Perkins and other relevant federal and state legislation.
- Provide timely data to evaluate and improve the effectiveness of POS.

5. COLLEGE AND CAREER READINESS STANDARDS

Content standards that define what students are expected to know and be able to do in order to enter and advance in college and/or their careers comprise the foundation of a POS.

Rigorous college and career readiness standards should:

- Be developed and continually validated in collaboration with secondary, postsecondary, and industry partners.
- Incorporate essential knowledge and skills (e.g., academic, communication, and problem-solving skills), which students must master regardless of their chosen career area or POS.
- Provide the same rigorous knowledge and skills in English and mathematics that employers and colleges expect of high school graduates.
- Incorporate industry-recognized technical standards that are valued in the workplace.
- To the extent practicable, be internationally benchmarked so that all students are prepared to succeed in a global economy.

6. COURSE SEQUENCES

Non-duplicative sequences of secondary and postsecondary courses within a POS ensure that students transition to postsecondary education without duplicating classes or requiring remedial coursework.

Well-developed course sequences should:

- Map out the recommended academic and career and technical courses in each POS.
- Begin with introductory courses at the secondary level that teach broad foundational knowledge and skills that are common across all POS.
- Progress to more occupationally-specific courses at the postsecondary level that provide knowledge and skills required for entry into and advancement in a chosen POS.
- Offer opportunities for students to earn postsecondary credit for coursework taken during high school.

7. CREDIT TRANSFER AGREEMENTS

Credit transfer agreements provide opportunities for secondary students to be awarded transcribed postsecondary credit at the time the credit is earned and are supported by formal agreements between secondary and postsecondary education systems.

Well-developed credit transfer agreements:

- Provide a systematic, seamless process for students to earn college credit for postsecondary courses taken in high school, transfer high school credit to any two- or four-year institution in the state that offers the POS, and transfer credit earned at a two-year college to any other two- or four-year institution in the state that offers the POS.
- Transcript the college credit at the time the secondary student earns the credit so the students can transfer seamlessly into the postsecondary portion of a POS without the need for additional paperwork or petitioning for credit.
- Describe the expectations and requirements for, at a minimum, teacher and faculty qualifications, course prerequisites, postsecondary entry requirements, location of courses, tuition reimbursement, and credit transfer process.

8. GUIDANCE COUNSELING AND ACADEMIC ADVISEMENT

Guidance counseling and academic advisement help students to make informed decisions about which POS to pursue.

Comprehensive guidance counseling and academic advisement systems:

- Are based on state and/or local guidance and counseling standards, such as the National Career Development Guidelines.²
- Ensure that guidance, counseling, and advisement professionals have access to up-to-date information about POS offerings to aid students in their decision making.
- Offer information and tools to help students learn about postsecondary education and career options, including prerequisites for particular POS.
- Offer resources for students to identify their career interests and aptitudes and to select appropriate POS.
- Provide information and resources for parents to help their children prepare for college and careers, including workshops on college and financial aid applications.
- Offer web-based resources and tools for obtaining student financial assistance.

9. TEACHING AND LEARNING STRATEGIES

Innovative and creative instructional approaches enable teachers to integrate academic and technical instruction and students to apply academic and technical learning in their POS coursework.

Effective teaching and learning strategies should:

- Be jointly led by interdisciplinary teaching teams of academic and career and technical teachers or faculty.
- Employ contextualized work-based, project-based, and problem-based learning approaches.
- Incorporate team-building, critical thinking, problem-solving, and communication skills, (e.g., activities organized by the career and technical student organization (CTSO)).

10. TECHNICAL SKILLS ASSESSMENTS

National, state, and/or local assessments provide ongoing information on the extent to which students are attaining the necessary knowledge and skills for entry into and advancement in postsecondary education and careers in their chosen POS.

Well-developed technical skills assessments:

- Measure student attainment of technical skill proficiencies at multiple points during a POS.
- Employ industry-approved technical skill assessments based on industry standards, where available and appropriate.
- Employ state-developed and/or approved assessments, where industry-approved assessments do not exist.
- Incorporate performance-based assessment items, to the greatest extent possible, where students must demonstrate the application of their knowledge and skills.

¹ The 10 elements are: (1) statewide student identifier; (2) student-level enrollment data; (3) student-level test data; (4) information on untested students; (5) statewide teacher identifier with a teacher-student match; (6) student-level course completion (transcript) data; (7) student-level SAT, ACT, and Advanced Placement exam data; (8) student-level graduation and dropout data; (9) ability to match student-level P-12 and higher education data; and (10) a state data audit system.

² See http://cte.ed.gov/acrn/ncdg/ncdg_what.htm.

Pre-Assessment of POS Readiness and Capacity

Current Status of POS Development and Implementation

In the worksheet below, please consider the current status of your POS development and implementation efforts as defined by the POS framework elements. This status analysis may offer a comprehensive review of your overall POS readiness and capacity assessment by seeing which elements surface as a focus for continued development, technical assistance, or professional development.

If a particular element, or elements, surface as having a weak current status or is determined to be of critical importance, a deeper analysis of the individual POS element should be considered. The individual

POS element templates can serve as a tool to determine appropriate interventions to strengthen the development and implementation of a particular POS element.

As part of your analysis, you may want to establish an importance ranking for addressing specific POS framework elements. Depending on capacity, the timeline for addressing development of POS elements may require strategic planning that is manageable and results in the desired outcome. Establishing an importance order for addressing POS elements may be desirable to your overall POS planning.

POS Framework Elements	Current Status			Importance		
	None	In Progress	Operational	Low	Important	Critical
1. Legislation and Policies	1	2	3	1	2	3
2. Partnerships	1	2	3	1	2	3
3. Professional Development	1	2	3	1	2	3
4. Accountability and Evaluation Systems	1	2	3	1	2	3
5. College and Career Readiness Standards	1	2	3	1	2	3
6. Course Sequences	1	2	3	1	2	3
7. Credit Transfer Agreements	1	2	3	1	2	3
8. Guidance Counseling and Academic Advisement	1	2	3	1	2	3
9. Teaching and Learning Strategies	1	2	3	1	2	3
10. Technical Skill Assessments	1	2	3	1	2	3

POS Pre-Assessment—Development and Implementation Analysis

In the sections below, identify your current **system** capacity and readiness assets for POS development and implementation by responding to the question prompts. Identify and analyze local capacity barriers and priority concerns. Formulate steps needed to address the barriers and concerns.

Consider using this information to identify priority details for technical assistance and professional development. There is no “right” or “wrong” answer. An honest pre-assessment of your current readiness and capacity can help identify where best to target resources for the greatest return.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address identified priority concerns? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
<p>Notes</p>	<p>Notes</p>

Legislation and Policies

Strong programs of study result from coordination across state, local, and stakeholder agencies. Development of POS includes analysis of current labor market information to determine which POS will truly result in high demand jobs, input from stakeholders that is genuine and sustained, and funds dedicated to both initial development of POS as well as sustenance through curriculum development and business and education input. Legislation and policies at the state and local level should mandate, support, and encourage such practices.

Federal, state, and local legislation or administrative policies promote POS development and implementation.

Effective legislation and policies should:

- Provide for state and/or local funding and other resources, such as professional development and dedicated staff time, for POS development.
- Establish formal procedures or the design, implementation, and continuous improvement of POS.
- Ensure opportunities for any learner to participate in a POS.
- Require secondary students to develop an individual graduation or career plan.
- Provide resources for long-term sustainability of POS.

Legislation and Policies

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and appropriate implementation progress for Legislation and Policy using the measurement criteria listed. Determine the level that most closely aligns with the progress made toward addressing appropriate Legislation and Policy implementation. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
State plans lay out provision for funding initial development of POS including formation of advisory teams and analysis of demand.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Instructors of both academic and technical courses have access to both relevant professional development and paid release time to collaborate on curriculum integration.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Advisory committees consisting of secondary, postsecondary, business and instructor representatives convene regularly to assess quality and need for current POS.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
States have statewide graduation requirements and policies that support the creation of individual graduation plans. All students have access to information regarding career planning and POS courses.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS Legislation and Policy implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	1 None 2 In Progress 3 Operational	1 Low 2 Important 3 Critical

Legislation and Policies—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **Legislation and Policy** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
<p>Notes</p>	<p>Notes</p>

Partnerships

Establish a collaborative partnership that includes, at a minimum the local agencies responsible for secondary and postsecondary CTE, appropriate economic and workforce agencies, and faculty and administrators from the secondary and postsecondary institutions familiar with the elements of POS.

Ongoing relationships among education, business, and other community stakeholders are central to POS design, implementation, and maintenance.

Collaborative partnerships should:

- Create written memoranda of understanding that elaborate the roles and responsibilities of partnership members.
- Ensure the rigor and quality of the POS and articulation agreements by involving the partners and delineating responsibilities.
- Identify and/or develop opportunity for secondary students to participate in dual or concurrent enrollments or earn college credit.
- Partners identify and develop college and career readiness standards and provide the coherent sequence through content standards analysis.
- Identify, validate, and keep current the technical and workforce readiness skills that should be taught within a POS.
- Conduct ongoing analyses of economic and workforce trends to identify statewide (or regional) POS to be created, expanded, or discontinued.
- Link into existing initiatives that promote workforce and economic development, such as sector strategies and other activities supported by the Workforce Investment Act.
- Partners should have the authority to influence decisions and have the authority to communicate information to decision-makers.

Partnerships

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and implementation progress for Partnerships according to the measurement criteria listed. Determine the level that most closely aligns with the progress made toward Partnerships development and implementation. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
The partnership operates through a memorandum of understanding that describes the roles and responsibilities of each member of the partnership.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The partnership—balanced with a variety of stakeholders and persons who can influence policy decisions that affect the program of study—meets regularly to consider actions requiring input from program stakeholders and employers.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The partnership hears progress reports, makes recommendations and receives administrative feedback on actions taken on prior recommendations addressing the following : economic and workforce development needs, funding, POS content standards, assessments documenting student attainment of technical skills, student college and career transitions, and the availability of the dual or concurrent credit opportunities.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The partnership takes ownership of the program of study and works with educational leadership to ensure a relevant, high-level of implementation at the local level.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The partnership advocates for learner access, monitors content rigor, and ensures quality of POS and the related articulation agreements between educational partners.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The partnership committee uses the national career cluster advisory committee resources or state resources.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS Partnerships implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	1 None 2 In Progress 3 Operational	1 Low 2 Important 3 Critical

Partnerships—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **Partnerships** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
<p>Notes</p>	<p>Notes</p>

Professional Development

Effective Programs of Study rest, finally, on the shoulders of instructors in the classrooms—academic and technical, secondary and postsecondary. As the field of integrated curriculum is relatively new to many members of both fields, it is essential that instructors receive high quality PD to assist them in;

- Understanding how the courses they teach fit into a course sequence that includes both CTE and academic coursework and leads to non-duplicative postsecondary enrollment.
- Creating coursework that genuinely integrates both academic and technical material and fulfills secondary graduation requirements at the state level (horizontal alignment).
- Developing project-based curricula that allow students to apply what they have learned.
- PD should be delivered in several modalities that include classroom based coaching and projects with colleagues.
- Additionally, instructors at both secondary and postsecondary levels need opportunities to meet and both design and understand an aligned, vertical sequence of coursework

Sustained, intensive, and focused opportunities for administrators, teachers, and faculty foster POS design, implementation, and maintenance.

Effective professional development should:

- Support the alignment of curriculum from grade to grade (9-12) and from secondary to postsecondary education (vertical curriculum alignment).
- Support the development of integrated academic and career and technical curriculum and instruction (horizontal curriculum alignment).
- Ensure that teachers and faculty have the content knowledge to align and integrate curriculum and instruction.
- Foster innovative teaching and learning strategies.
- Encourage instructors to examine and use data to drive instruction and targeted assistance to students.

Professional Development

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and implementation progress for Professional Development according to the measurement criteria listed. Determine the level that most closely aligns with the progress made toward Professional Development implementation. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
State has process in place whereby instructors are an integral part of POS development and planning	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Professional development opportunities are high quality, sustained, intensive, and focuses on instruction	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Technical and academic instructors have regular compensated opportunities to jointly develop and implement curriculum that is both academically challenging and based on industry standards.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Secondary and postsecondary instructors have regular compensated opportunities to meet and design vertical curriculum. Secondary instructors are aware of postsecondary entrance requirements and use entrance exams/criteria to develop secondary curricula.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
High quality professional development is offered on contextual teaching strategies including project and work-based learning. Instructors receive consistent mentoring and coaching opportunities to follow up on PD.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS Legislation and Policy implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	1 None 2 In Progress 3 Operational	1 Low 2 Important 3 Critical

Professional Development—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **Professional Development** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
<p>Notes</p>	<p>Notes</p>

Accountability and Evaluation Systems

The POS application should be explicit with identifying the credential, certificate, and degree opportunities that exist upon completion of the program of study. Local applicants should be encouraged to illustrate multiple POS entrance and exit points, if appropriate. The level of detail required by the state approval agency may vary, but should at a minimum list the credential, certificate, and degree opportunities on a Career Cluster Plan of Study, if that is the chosen template for submission. Additional credential, certificate, and degree information may be requested to document the level of career guidance detail available to POS students. If the state approval agency is seeking to align POS with high skill, high wage, high demand career fields, the exit award for the POS may be important information.

In addition to the intended POS certification outcome, there may be other measurement points that could provide performance data informing POS effectiveness. Systems and strategies to gather quantitative and qualitative data on both POS components and student outcomes are crucial for ongoing efforts to development and implement POS.

Well-designed accountability and evaluation systems should:

- Include the “10 Essential Elements of a State Longitudinal Data System” identified by the Data Quality Campaign.¹
- Provide for administrative record matching of student education and employment data (i.e., Unemployment Insurance (UI) wage records).
- Yield valid and reliable data on key student outcomes (indicators) referenced in Perkins and other relevant federal and state legislation.
- Provide timely data to evaluate and improve the effectiveness of POS.

¹ The 10 elements are: (1) statewide student identifier; (2) student-level enrollment data; (3) student-level test data; (4) information on untested students; (5) statewide teacher identifier with a teacher-student match; (6) student-level course completion (transcript) data; (7) student-level SAT, ACT, and Advanced Placement exam data; (8) student-level graduation and dropout data; (9) ability to match student-level P-12 and higher education data; and (10) a state data audit system.

Accountability and Evaluation Systems

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and implementation progress for Accountability and Evaluation according to the measurement criteria listed. Determine the level that most closely aligns with the progress made toward Accountability and Evaluation development and implementation. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
Program data is regularly used and evaluated for planning, development, implementation, and improvement.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The program has procedures and processes in place to ensure collection of valid and reliable longitudinal data.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Performance data is used to monitor the college and career readiness of students incorporating longitudinal data systems elements across educational levels and into employment.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Program data is disaggregated to analyze the performance of sub-groups.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Program data is shared with faculty and analyzed for program and classroom improvement.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The program fosters a culture of continuous improvement	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS Accountability and Evaluation Systems implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	1 None 2 In Progress 3 Operational	1 Low 2 Important 3 Critical

Accountability and Evaluation Systems—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **Accountability and Evaluation Systems** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
Notes	Notes

College and Career Readiness Standards

Today's workplace requires that all workers be lifelong learners in order to advance in their careers. It is necessary there be a common set of knowledge and skills that all individuals acquire to successfully transition into postsecondary education or the workplace. As individuals select specific career paths, they will then have to focus on the additional knowledge and skills (above and beyond core college and career readiness) they should acquire to be successful in their chosen field.¹

Since most of the career opportunities for today's students will require some form of postsecondary education, there are many times when students will not be able to acquire the necessary academic, technical or employability skills in high school that will allow them to be career-ready without further education and training. Additional knowledge and specialization in one or more of these areas is often required either immediately after high school or in the future, depending on a student's career choices.²

Content standards that define what students are expected to know and be able to do to enter and advance in college and/or their careers comprise the foundation of a POS.

Rigorous college and career readiness standards should:

- Be developed and continually validated in collaboration with secondary, postsecondary, and industry partners.
- Incorporate essential knowledge and skills (i.e., academic skills, communication, and problem-solving), which students must master regardless of their chosen career area or POS.
- Provide the same rigorous knowledge and skills in English and mathematics that employers and colleges expect of high school graduates.
- Incorporate industry-recognized technical standards that are valued in the workplace.
- To the extent practicable, be internationally benchmarked so that all students are prepared to succeed in a global economy.

¹ "What is College and Career Ready"? National Associate of State Directors of Career and Technical Education Consortium, March 2010.

² "What is Career Ready"? Association for Career and Technical Education, April 2010

College and Career Readiness Standards

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and implementation progress for College and Career Readiness Standards according to the measurement criteria listed. Determine the level that most closely aligns with the progress made toward College and Career Readiness Standards implementation. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
The program of study is fully aligned with state academic standards for reading, mathematics, and science.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The program of study is aligned with employer and postsecondary standards and CTE students complete a challenging core curriculum.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The program of study is aligned with current technical content standards validated through the national career cluster knowledge and skill statements, or other third-party review, and students complete a sequenced CTE curriculum.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS College and Career Readiness Standards implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	1 None 2 In Progress 3 Operational	1 Low 2 Important 3 Critical

College and Career Readiness Standards—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **College and Career Readiness Standards** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
<p>Notes</p>	<p>Notes</p>

Course Sequences

Evidence should be considered that illustrates the secondary-postsecondary sequence of courses that reflect the aligned POS. Documentation should show there is a planned sequence that does not result in any duplication of coursework for a student participating in a POS. The academic content should show the program of study will enable a secondary student to meet the state's diploma requirements through the program of study as well as the desired academic content to support the program of study technical content.

At the postsecondary level, the program of study should show the coursework a student will pursue to satisfy the academic general education requirements for a POS-related credential, credential, or degree. An example of a coordinated, non-duplicative progress of courses may be the Career Cluster Plans of Study template. A single Career Cluster Plan of Study template could satisfy documentation for both the alignment of the secondary and postsecondary sectors and illustrate the coordinated, non-duplicated progression of courses. Examples of the Career Cluster Plans of Study can be viewed at www.careerclusters.org.

Non-duplicative sequences of secondary and postsecondary courses within a POS ensure that students transition to postsecondary education without duplicating classes or requiring remedial coursework.

Well-developed course sequences should:

- Map out the recommended academic and career and technical courses in each POS.
- Begin with introductory courses at the secondary level that teach broad foundational knowledge and skills that are common across all POS.
- Progress to more occupationally-specific courses at the postsecondary level that provide knowledge and skills required for entry into and advancement in a chosen POS.
- Offer opportunities for students to earn postsecondary credit for coursework taken during high school.

Course Sequences

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and implementation progress for Course Sequences according to the measurement criteria listed. Determine the level that most closely aligns with the progress made toward Course Sequences implementation. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
The program of study is fully aligned with state academic standards for reading, mathematics, and science.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Courses are articulated to build depth of knowledge and skills without duplication and fully integrate opportunities for students to earn college credit.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
The program of study creates a career pathway to prepare students for the transition to post-secondary education. The program of study must include a formal credentialing program, a two-year degree program, or a four-year degree program and is consistent with the student's career goals.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
CTE courses in the program of study start broad in secondary and lead to specialization through the educational process.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS Course Sequences implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	1 None 2 In Progress 3 Operational	1 Low 2 Important 3 Critical

Course Sequences—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **Course Sequences** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
<p>Notes</p>	<p>Notes</p>

Credit Transfer Agreements

Through the alignment of the secondary and postsecondary levels and in an attempt to provide a non-duplicative progression of courses, agreements may be forged between institutions to offer college credit for attainment of postsecondary knowledge and skills by secondary students. These concurrent or dual credit, opportunities may be illustrated through a coding scheme on the Career Cluster Plan of Study template that clearly shows which high school courses may qualify for postsecondary credit. The concurrent or dual credit agreements should be further documented by having a local Perkins grant applicant submit copies of institutional-level agreements, not individual course-to-course articulation agreements. The institutional-level agreements may represent a number of individual course articulations, but establishes an "umbrella" agreement to cover the policy-level acceptance by chief academic officers at both the secondary and postsecondary levels. An example of such an agreement is in the appendix of this document.

Credit transfer agreements provide opportunities for secondary students to be awarded transcribed postsecondary credit, supported by formal policy agreements between secondary and postsecondary education systems.

Well-development agreements:

- Matches course work between secondary and postsecondary education to reduce redundancy, and dual credit adds depth to the CTE program.
- Creates local, regional or statewide partnerships between the school district/high school and a technical college, two-year college or four-year college.
- Establishes policies and procedures for academic and technical content alignment, student eligibility for dual credit courses, course prerequisites, criteria for awarding postsecondary credit for dual credit courses, criteria for dual-credit instructors, dual credit administration and funding, and relevant credit transfer processes.
- Provide a systematic, seamless process for students to earn college credit for postsecondary courses taken in high school, transfer high school credit to any two- and four-year institution in the state that offers the POS, and transfer credit earned at a two-year college to any other two- or four-year institution in the state that offers the POS.
- College credits are automatically transcribed at the college for high school students so they can transfer seamlessly into the postsecondary portion of a POS without the need for additional paperwork or petitioning for credit.

Credit Transfer Agreements

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and implementation progress for Credit Transfer Agreements according to the measurement criteria listed. Determine the level that most closely aligns with the progress made toward Credit Transfer Agreements implementation. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
The program of study is supported by articulation/agency agreements with postsecondary institutions statewide.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Agreements are viewed as essential for non-duplication of courses.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
A process for extra help for enrollment in concurrent or dual credit courses addresses the required technical skills and college placement standards in reading, writing and mathematics.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Criteria are established for awarding postsecondary credit and credit earned is immediately added to the high school and postsecondary transcripts.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Articulation/dual enrollment agreements have established the same requirements for faculty, course syllabi and end-of-course exams whether taught to high school or college students.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Articulation/dual enrollment agreements are reviewed annually.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
There is no differentiation in assessment at the secondary or postsecondary level.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS Credit Transfer Agreements implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	1 None 2 In Progress 3 Operational	1 Low 2 Important 3 Critical

Credit Transfer Agreements—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **Credit Transfer Agreements** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
<p>Notes</p>	<p>Notes</p>

Guidance Counseling and Academic Advisement

Guidance counseling and academic advisement systems in a state should help students to plan for a complete sequence of coursework towards graduation and enrollment in a postsecondary program within the career pathway of their choice. System should include career awareness tools and coursework plans encompassing both POS and academic prerequisites for graduation and POS completion. Plan development should include student, parents, academic and career and technical teachers and be updated regularly throughout student's education. Guidance counseling and academic advisement help students to make informed decisions about which POS to pursue.

Comprehensive guidance counseling and academic advisement systems:

- Are based on state and/or local guidance and counseling standards, such as the National Career Development Guidelines (http://cte.ed.gov/acrn/ncdg/ncdg_framework.aspx)
- Ensure that guidance, counseling, and advisement professionals have access to up-to-date information about POS offerings to aid students in their decision-making.
- Other information and tools to help students learn about postsecondary education and career options, including prerequisites for particular POS
- Offer resources for students to identify their career interests and aptitudes and to select appropriate POS
- Provide information and resources for parents to help their children prepare for college and careers, including workshops on college and financial aid assistance.
- Offer and encourage students to expand their portfolios while in high school by participating in volunteer, work based, and paid opportunities to provide real-life experience in their chosen field.
- Include student, parents, guidance, and academic and career and technical staff in initial and ongoing planning and process.

Guidance Counseling and Academic Advisement

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and implementation progress for Guidance Counseling and Academic Advisement according to the measurement criteria listed. Determine the level that most closely aligns with the progress made toward Guidance Counseling and Academic Advisement implementation. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
Comprehensive guidance counseling and academic advisement system commences in middle school and continues through placement in post-secondary enrollment.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Guidance counseling and academic advisement system and tools are statewide and portable.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Guidance system provides access to career planning tools and information regarding POS available in that state.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Guidance system includes initial and regular opportunities to plan and assess student progress in a course sequence that meets the prerequisites for enrollment in postsecondary as well as academic requirements for state graduation.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Guidance system includes participation by guidance professionals, parents, and academic and career instructors.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Guidance staff receives professional development on career and academic advising.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Guidance system includes portfolio development encompassing career and technical coursework, academic, and work based learning opportunities.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS Guidance Counseling and Academic Advisement implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	① None ② In Progress ③ Operational	① Low ② Important ③ Critical

Guidance Counseling and Academic Advisement—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **Guidance Counseling and Academic Advisement** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
Notes	Notes

Teaching and Learning Strategies

Teaching and Learning Strategies used by both academic and technical instructors in POS should employ a variety of innovative modalities to ensure that instruction integrates both academic and technical content, uses projects to teach students the full expression of the skills within a career cluster, and effectively incorporate hands-on opportunities for students to gain and demonstrate skills and knowledge. While true integration can be challenging for all academic coursework, many technical courses can incorporate cluster specific terminology, critical thinking skills, reading skills, and mathematics skills to actively engage students in solving real problems with both academic and technical skills and knowledge.

Innovative and creative instructional approaches enable teachers to integrate academic and technical instruction and students to apply academic and technical learning in their POS coursework.

Effective teaching and learning strategies should:

- Be jointly led by interdisciplinary teaching teams of academic and career and technical teachers or faculty.
- Employ contextualized, work-based, project-based, and problem-based learning approaches.
- Incorporate team-building, critical thinking, problem-solving, communications skills, such as through the use of career and technical student organization (CTSO) activities.

Teaching and Learning Strategies

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and implementation progress for Teaching and Learning Strategies according to the measurement listed. Determine the level that most closely aligns with the progress made toward implementation of Teaching and Learning Strategies. Record your self-assessment rating using the following determinations. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and a possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
Students receive academic and technical instruction in integrated, non-sequential ways.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Instructors use problem-solving and project-based instruction to teach integrated coursework. Students have opportunities to delve deeply into material and create solutions and projects that reflect their gained skills and knowledge, while working as a team.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
POS coursework is created by a team of academic and technical secondary and postsecondary instructors. Coursework is challenging and meets the standards of academic requirements at the state level.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Instructors are supported to design integrated coursework by administrative staff and with appropriate resources.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS Teaching and Learning Strategies implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	① None ② In Progress ③ Operational	① Low ② Important ③ Critical

Teaching and Learning Strategies—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **Teaching and Learning Strategies** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
Notes	Notes

Technical Skill Assessments

The POS documentation should be explicit with identifying the credential, certificate, and degree opportunities that exist upon completion of the program of study. Local applicants should be encouraged to illustrate multiple POS exit points, if appropriate. The level of detail required by the state agency in recognizing a local POS may vary, but should at a minimum list the credential, certificate, and degree opportunities on a Career Plan of Study, if that is the chosen template for illustration. If the state approval agency is seeking to align POS with high skill, high wage, high demand career fields, the exit award for the POS may be important information.

National, state, and/or local assessments provide ongoing information on the extent to which students are attaining the necessary knowledge and skills for entry into and advancement in postsecondary education and careers in their chosen POS.

Well-developed technical skills assessments:

- Measure student attainment of technical skill proficiencies at multiple points during a POS.
- Employ industry-approved technical skill assessments based on industry standards, where available and appropriate.
- Employ state developed and/or approved assessments, particularly where industry-approved assessments do not exist.
- Result in the awarding of secondary credits, postsecondary credit, or a special designation on a student's high school diploma
- Incorporate performance-based assessment items, to the greatest extent possible, where students must demonstrate the application of their knowledge and skills.

Technical Skill Assessments

Self-Assessment Ranking of Current Implementation Status and Importance to Your Implementation

Rank your development and implementation progress for Technical Skill Assessments according to the measurement criteria listed. Determine the level that most closely aligns with the progress made toward implementing Technical Skill Assessments. The self-assessment is intended to be an authentic gauge of actual implementation. Results from the self-assessment can be used to target areas for technical assistance and professional development. An analysis of the level of importance can assist in establishing the priority and possible timeline for implementing technical assistance and scheduling professional development.

Implementation Characteristics	Current Status	Importance
Local program of study implementers select formalized technical skill assessments from a state approved assessment list.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
All assessments identified for use are industry-validated and aligned to standards.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Technical skill assessments used have been selected for state approval and local use following a set of assessment criteria including technical analysis for validity and reliability.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
All assessments have an assessment blueprint available for use by the teacher.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Technical skill assessments incorporate performance-based assessment items.	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Student performance results are reported to the classroom teacher for: <ul style="list-style-type: none"> • Instructional improvement • Awarding of postsecondary credit as part of an articulation agreement • Awarding of an industry-recognized credential or certificate 	<input type="checkbox"/> None <input type="checkbox"/> In Progress <input type="checkbox"/> Operational	<input type="checkbox"/> Low <input type="checkbox"/> Important <input type="checkbox"/> Critical
Overall Status Summary	Current Status	Importance
After considering each of the implementation characteristics, please rank: 1) your current status of POS Technical Skill Assessments implementation; and 2) the level of importance this element has to your POS implementation. Transfer these rankings to the Self-Assessment Summary to compare the status and importance of this element to the other POS framework elements.	1 None 2 In Progress 3 Operational	1 Low 2 Important 3 Critical

Technical Skill Assessments—Implementation Capacity Analysis

Self-Assessment Reflection and Action Planning

In the section below, identify your current capacity assets in the area of **Technical Skill Assessments** by responding to the question prompts. Give equal analysis to local capacity barriers, items of critical importance, and steps needed to remedy these capacity concerns.

State or Local Self-Assessment	Items of Critical Importance/Action Steps
<ul style="list-style-type: none"> • What’s working well that is worth keeping? • What goals do you have to sustain and enhance the level of collaboration among the partners? • What strategies will you use to sustain the engagement of partnership members? • How will you know if your partnership is being successful? 	<ul style="list-style-type: none"> • What will be new or needs to be revised? • What strategies will you use to address items identified as being of critical importance? • What are the indicators you will use to measure your improvement? • How will you know if you are successful? And when?
<p>Notes</p>	<p>Notes</p>

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Legislation and Policies

Illinois Curriculum Development

<http://www.ilcte.org/content-areas/industrial-technology>

New York State Program Approval Process

<http://www.emsc.nysed.gov/cte/ctepolicy/documents/Implementationguide2010.doc>

New Jersey Perkins State Plan

http://cte.ed.gov/Docs/CARNarrative/NJ_narrative_2006-2007.pdf

Georgia Student Graduation Plan

http://www.doe.k12.ga.us/_documents/doe/legalservices/160-4-2-.48.pdf



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CTE Area Information

- Agriculture
- Business, Marketing & Computer Education
- Family & Consumer Sciences
- Health Science Technology
- Technology & Engineering Education

Lesson Library Links

- Lesson CD Outline
- Lesson Plan Authors

CTE in Illinois

- Problem-based Learning
- CTE System Map

Technology & Engineering Education

Latest update



Check This Out!!

WOULD YOU LIKE TO BE PAID TO CREATE CURRICULUM?

The Curriculum Revitalization is recruiting teacher-writers for training in 2009. Training is paid, and lesson writers are compensated per lesson. If you are interested, contact

Dr. Robert Hotes, Technology & Engineering Education Facilitator-rhotes@ioes.org.

Illinois Office of Educational Services (217)786-3010 ext. 249

Technology & Engineering Education Component of the Curriculum Revitalization Initiative (CRI)

Workshop Participant [Online Forms](#)

[Technology & Engineering Education Sample Lesson](#)

[State Advisory Committee](#)

[Teacher Steering Committee](#)

[Lessons under development](#)

[State of the Art Paper](#)

Resources are available via [ISBE website](#) and the [IOES library](#) has cataloged curriculum materials available.

History of T&EE CRI

A Technology & Engineering Education State Advisory Committee comprised of approximately 30 business representatives and educators met to provide direction and priorities for revitalizing the T&EE curriculum. The T&EE facilitator shared information derived from the T&EE State of the Art paper as background information/data for the committee and ISBE. The committee recommended starting on orientation level content followed by skill-level lessons in manufacturing/engineering, construction, automotive and computer science.

A T&EE Teacher/Writer recruitment brochure was developed and disseminated during the winter-spring of 2006. A group of T&EE teachers was recruited.

A T&EE DACUM Panel was convened to identify content for T&EE orientation level

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Section 1: Program Approval

Program approval is the way the State Education Department (SED) ensures that local career and technical education (CTE) programs meet the policy requirements approved by the Board of Regents on February 6, 2001

Prior to submitting an application the Department, the self-study and external review committees will have reviewed the program in its entirety to ensure that the

- curriculum design provides rigorous content which is non-duplicative and provides the student with a coherent sequential program of study;
- curriculum has been aligned to both state and national learning standards;
- secondary curriculum is aligned with postsecondary education;
- faculty is state certified with the appropriate academic and/or technical certification;
- technical assessment meets current industry standards;
- articulation agreements are constructed to provide students with direct benefit;
- program provides work-based learning opportunities for all students; and
- data reporting infrastructure has been developed to report student performance in order to evaluate success on Regent's examinations, approved alternatives, technical assessments, and placement in higher education, employment or the military.

Process

A CTE program is eligible for state approval provided the school district/BOCES has met all program approval guidelines including but not limited to:

- conducting the CTE self-study
- conducting the external review
- processing all modifications necessary as the result of the external review

New Jersey Perkins State Plan

Technology:

Eligible recipients were also encouraged to incorporate technology usage into their local five-year plans and to use available Perkins grant funds for the improvement of technology in the delivery of instruction for CTE programs. As part of that delivery mechanism, classroom teachers must be provided instruction in the implementation of high levels of technology in all CTE programs. Additionally, career guidance counselors were encouraged to use technology in order to enhance opportunities related to academic and career counseling for students. Training must be provided to career guidance counselors in the use of the appropriate technology.

Professional Development Plans:

Professional development programs, including providing comprehensive professional development (including teacher preparation) for career and technical, academic, guidance, and administrative personnel

The OCTE continued implementation of the training requirements for teachers who place and supervise students in SLEs. The requirements include: OSHA 10 General Industry Certificate training; training on federal and state wage and hour and wage payment laws, child labor laws, and hazardous orders; training on designing student training plans for a variety of SLEs. The training also addressed how to link SLEs to the NJ CCCS in order to ensure academic rigor and relevance. This teacher-training program is considered a national model by the U.S. Department of Labor–OSHA, which has highlighted the program in its conference presentation nationally and in its newsletters.

Code: IHF(6)

160-4-2-.48 HIGH SCHOOL GRADUATION REQUIREMENTS FOR STUDENTS ENROLLING IN THE NINTH GRADE FOR THE FIRST TIME IN THE 2008-09 SCHOOL YEAR AND SUBSEQUENT YEARS.

(1) **PURPOSE.** This rule specifies programs of study that shall be offered by local boards of education for students enrolling in the ninth grade for the first time in the 2008-2009 School Year and for subsequent years.

(2) **DEFINITIONS.**

(a) **Career, Technical and Agricultural Education (CTAE) Pathways** – Three elective units in a coherent sequence that includes rigorous content aligned with industry-related standards leading to college and work readiness in a focused area of student interest.

(b) **Core Courses** - courses identified as “c” or “r” in Rule 160-4-2-.03 List of State-Funded K-8 Subjects and 9-12 Courses.

(c) **Elective Courses** – any courses identified as “e” in Rule 160-4-2-.03 List of State-Funded K-8 Subjects and 9-12 Courses that a student may select beyond the core requirements to fulfill the unit requirements for graduation.

(d) **Required courses** - specific courses identified as “r” in Rule 160-4-2-.03 List of State-Funded K-8 Subjects and 9-12 Courses that each student in a program of study shall pass to graduate from high school.

(e) **Secondary School Credential** - a document awarded to students at the completion of the high school experience.

1. **High School Diploma** - the document awarded to students certifying that they have satisfied attendance requirements, unit requirements and the state assessment requirements as referenced in Rule 160-3-1-.07 Testing Programs - Student Assessment.

2. **High School Certificate** - the document awarded to pupils who do not complete all of the criteria for a diploma or who have not passed the state assessment requirements as referenced in Rule 160-3-1-.07 Testing Programs – Student Assessment, but who have earned 23 units.

3. **Special Education Diploma** - the document awarded to students with disabilities assigned to a special education program who have not met the state assessment requirements referenced in Rule 160-3-1-.07 Testing Programs - Student Assessment or who have not completed all of the requirements for a high school

2.

Partnerships

New Jersey Application

<http://www.state.nj.us/education/voc/occprapp.pdf>

New Jersey Innovation Partnerships

http://cte.ed.gov/Docs/CARNarrative/NJ_narrative_2006-2007.pdf

Arizona CTE Local Advisory Committee Member's Guide

<https://www.azed.gov/cte/businesseducation/programupdates/LocalAdvisoryCouncilMembersGuide.pdf>

Arizona CTE Local Advisory Committee Leadership Guide

<http://www.ade.az.gov/cte/info/LeadershipGuide.pdf>

Kansas CTE Advisory Committee Guidebook

<http://www.ksde.org/Default.aspx?tabid=1660#ACH>

Step 2: Determining Intent and Need –

Determine the intent of the CTE program or program of study eligible for re-approval and then document the regional, statewide, and / or county demand by consulting with the applicable New Jersey [Workforce Investment Board](#) (WIB) to make them aware that the CTE program or program of study is being re – approved.

NOTE: A WIB consultation is *not* required for state agencies.

What is the intent of your CTE Program or Program of Study for your students? What are its goals and objectives?

Has there been a WIB Consultation?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<u>WIB name, WIB director, and contact information:</u>		
<u>Date WIB consulted:</u> ____ / ____ / ____	<u>Date WIB responded:</u> ____ / ____ / ____	
<u>WIB response:</u>		

NEED: Need for the CTE Program or Program of Study must be validated *by at least one of the following:*

Included in the Governor’s Economic Growth Strategy for New Jersey – (See the Five-Year Plan for Career and Technical Education FY 2008-2013 , pages 16 and 17)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Which Economic Growth Strategy(s)?		

OR

On the New Jersey Center For Occupational Employment Information's (COEI) Labor Demand List?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Applicable occupations on the COEI demand list:		

OR

Is there Local or Regional Labor Demand, validated by at least three local businesses or business associations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
List local or regional businesses or business associations verifying demand:		

New Jersey Innovation Partnerships

Innovation Partnership Institutes

The NJDOE continued its collaboration with the NJ Commission on Higher Education (NJCHE) and the NJLWD to develop formal relationships with industry in order to better respond to the educational and workforce challenges of a rapidly-changing economy. Through an initial competitive grant opportunity, state government is serving as an intermediary to encourage substantive partnerships between the state's business community and educational system. Such collaborations will result in establishing Innovation Partnership Institutes for major industry sectors identified by the Governor's Office of Economic Growth as offering current employment opportunities in jobs that provide high wages, good benefits, and a viable career ladder within the industry, including: Information Technology, Bio-Technology/Pharmaceutical, and Finance.

*What is an
Advisory Committee?*

Advisory committees promote greater cooperation between career and technical education and business/industry.

They're made up primarily of private-sector members who volunteer their time, talent and knowledge to support and strengthen career and technical education programs.

Advisory committees have three major roles:

- ✓ To advise
- ✓ To assist
- ✓ To support and advocate for career and technical education

An important service that committee members provide is to assist faculty in identifying job specific skills so that instruction will better reflect business/industry and further strengthen career and technical education.

ARIZONA Career and Technical Education



Local Advisory Committee Member's Guide



November 2001
**Arizona Department of Education
Career and Technical Education**
Website:
www.ade.state.az.us/cte/careerpathways

Thank You

Thank you for volunteering your time and energy to assist Arizona Career and Technical Education (CTE) and to serve on a Local Advisory Committee.

One of the most common characteristics of “quality programs” is their close tie to business and industry as well as to the community.

This guide attempts to answer frequently asked questions pertaining to advisory committees.

The Importance

“Schools and business that work together not only reinforce the importance of business-education partnerships, but also the need for everyone to work toward a common goal: building a better community.”

—Techniques
(Association for Career and Technical Education)

“Occupational training must be of high quality for Arizonans to compete in the international marketplace. Using the advice of experts to keep occupational programs delivering the latest in technology processes and systems is good for students, employers and the economy.”

—U.S. News & World Report

How does this Benefit my Business?

As the work place increasingly becomes more technological, complex and competitive, well-trained workers have become difficult to find.

Advisory committee membership provides:

- ✓ Direct access to skilled potential employees
- ✓ Opportunities to influence training of the current and future workforce
- ✓ A setting to develop networking relationships with professionals in your respective field

What are my Responsibilities?

Committee members work to strengthen and modernize the CTE program. It's important that members:

- ✓ Attend/participate in meetings
- ✓ Suggest/develop agenda items
- ✓ Help determine priorities and ways to achieve them
- ✓ Accept/carry out assignments

What are the Functions of an Advisory Committee?

Committees develop a program of work based on the needs of the program and the requirements of the business community. These are eight major areas committees *may* consider assisting with:

- ✓ Community Relations
- ✓ Curriculum
- ✓ Community Resources
- ✓ Recruitment
- ✓ Career and Technical Student Organizations
- ✓ Job Placement
- ✓ Staff Development
- ✓ Program Review

On average, advisory committees meet twice a year.

Advisory committees are effective when all those involved (instructors, administrators and committee members) work cooperatively to enhance and improve the program.

PART II

ESTABLISHING LOCAL ADVISORY COMMITTEES

Each advisory committee is unique, so the committee members should develop the organizational structure. The structure and procedures are generally outlined in the committee's bylaws. This section outlines areas to consider as rules and procedures are developed.

Size of the Committee

Effective advisory committees are large enough to reflect the diversity of the community, yet small enough to be managed effectively. Committees with fewer than five members may have limited perspective, inadequate information on the career fields and too little diversity. Committees with more than 12-18 members can become unmanageable.

Term of Service

To allow for both continuity and change, it may prove beneficial to incorporate a rotational three-year term of service. To establish this rotation with a new committee, the members draw lots for one-, two-, or three-year terms, with one-third of the committee in each category. New members are appointed as terms expire.

Selection of Members

To provide effective communication between the career and technical education programs and the community, advisory committee membership should be representative of the total school service area. Members may be selected from the following:

- ▶ The geographical area served by the school
- ▶ Business and industry related to the program area
- ▶ Both labor and management
- ▶ Community's economic development or chamber of commerce members
- ▶ Parents of students enrolled in the career and technical education program
- ▶ Current and former students of the career and technical education program
- ▶ Various age levels
- ▶ Different education levels
- ▶ Both sexes, individuals with handicaps and racial and ethnic minorities found in the area and served by the program

Broad representation will include viewpoints of segments of the community being served by career and technical education. A career and technical education instructor and a representative of the administration are also recommended to serve on the committee.

Goals, Objectives and Activities of Advisory Committee

The Advisory Committee members evaluate the Career and Technical Education (CTE) cluster/pathway they are serving and advise the CTE coordinator and local administration on improvement of the cluster/pathway.

The following information offers several suggestions for an advisory committee's input, expertise, and action.

Analyze the course content: Suggested Activities may include but are not limited to:

Review and suggest content for courses of study and standards of proficiency in areas which are essential to becoming successfully employed in a career path.

Review sequence of courses that comprise the pathway.

Review Articulation Agreements.

Review course outlines, occupational outlook, course competencies, career development skills, and Career Cluster knowledge and skills.

Help develop educational objectives.

Review software packages, textbooks, resources and other supplementary materials.

Advise on the extent to which academic skills and work attitudes should be taught.

Review career exploration and awareness courses offered K-8.

Recommend standards for experience-based learning activities, work-based learning experiences, projects and programs.

Assist with Industry Credentials: Suggested Activities may include but are not limited to:

Advise on industry validated credentials available within the pathway occupations.

Assist with obtaining testing for industry credentials, licenses and certifications.

Evaluate facilities and program equipment: Suggested Activities may include but are not limited to:

Review existing equipment, facilities, and resources.

Review lab equipment (computers, printers, video, etc.) and compare with the current and future technology and industry standards.

Review lab (or shop) safety program.

Review room (shop, lab) layout, space requirements, workstations, lighting, ventilation, etc., and compare with industry norms and State Pathway Standards and recommendations.

(Cont. Next Page)

Committee members advise the LEA on improvement of the Pathway.



Goals, Objectives and Activities of Advisory Committee (Cont.)

Committee Members Can Assist in Establishing Internship Training Sites for Students.

Assist with Instructional and Learning Experience: Suggested Activities may include but are not limited to:

Advise on methods of instruction most appropriate for course content.

Provide plant tours and field experiences for students and teachers.

Identify or suggest resource personnel to enrich the instructional content.

Assist in establishing training stations where students can obtain the appropriate occupational work-based experience.

Assist in locating sample kits of raw materials, finished products, charts, posters, etc. for exhibit and instructional purposes in the classroom, lab, and shop.

Assist in obtaining school equipment and supplies on loan, as gifts, or at special prices.

Support Career and Technical Student Organizations and sponsor student incentives, prizes, and scholarships.

Suggest qualified persons for teacher vacancies or as substitutes.

Participate as a resource person to enhance the instructional process.

Sponsor Teachers for summer Externship opportunities.

Assist with Job Opportunities: Suggested Activities may include but are not limited to:

Assist in surveying manpower needs. (Consult wage and Job Outlook information on KSDE Website)

Advise on new and emerging occupations.

Advise on the changing nature of the competencies in occupational fields.

Assist in placing graduates or pathway concentrators.

Inform the school of opportunities to place students in full- or part-time jobs.

Establish and maintain current library resources pertaining to career opportunities.

Provide relevant information to teachers and counselors concerning desirable aptitudes, education, and experience background that applicants need for entry-level jobs and postsecondary education.

Advise on ways to recruit and retain students in pathways leading to careers that are nontraditional for their gender.

(Cont. Next Page)



3.

Professional Development

Illinois Curriculum

http://www.isbe.state.il.us/career/pdf/IT_C2-1.pdf

New Mexico Perkins Monitoring Instrument

<http://www.ped.state.nm.us/CTWEB/monitoring.html>

Ohio CTE Online Professional Development Offerings

<http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=1691&ContentID=67605&Content=81886>

Six District Educational Compact— Academic and Technical Integration in Ohio

<http://education.ohio.gov/GD/DocumentManagement/DocumentDownload.aspx?DocumentID=28591>

SUMMARY OF CONTENT AND TEACHING STRATEGIES

Objective 1: Explain the difference between hand tools, power tools, and equipment.

Anticipated Problem: How are hand tools, power tools, and equipment different?

- I. Clarify the difference between hand tools, power tools, and equipment.
 - A. **Hand tool**—An implement that acts as an extension of the human hand and is human powered
 - B. **Power tool**—An implement that acts as an extension of the human hand and has its own power source
 - C. **Equipment**—A machine or tool that is so large it cannot be easily carried or used by hand. It may be human powered, such as by a foot pedal or lever/crank, or it may have its own power source.

Many techniques can be used to help students master this objective. As an example, students could use Chapter 7 in Manufacturing Technology. Use VM–A to provide students with examples of common hand tools. Use VM–B to provide them with examples of common power tools.

Objective 2: Identify the processes performed by tools and equipment.

Anticipated Problem: What are the processes performed by tools and equipment?

- II. Processes performed by tools and equipment
 - A. **Measuring**—Using a numerical system to indicate the dimensions of a part or material
 1. Measuring systems: English and metric
 - B. **Separating**—Removing part of the original material while leaving the required size and shape
 1. Types: chemical and mechanical (by shear force, chip removal, etc.)
 - C. **Forming**—Shaping materials or components of products
 1. Bending, twisting, rolling, compressing, etc.
 - D. **Combining**—Putting components together into subassemblies or finished products
 1. Chemically, mechanically, thermally, by adhesion, by fusion (welding, brazing, soldering)

II. REQUIREMENTS FOR USES OF FUNDS (continued)				
CRITERIA	INDICATOR	DOCUMENTATION		COMMENTS
		SECONDARY	POSTSECONDARY	
<p>(5) Provide professional development programs to secondary and post-secondary teachers, faculty, administrators, and career guidance and academic counselors who are involved in integrated career and technical education programs, including:</p> <p>(A) in-service and pre-service training on</p> <ul style="list-style-type: none"> (i) effective integration and use of challenging academic and career technical education provided jointly with academic teachers to the extent practicable; (ii) effective teaching skills based on research that includes promising practices; (iii) effective practices to improve parental and community involvement; and (iv) effective use of scientifically based research and data to improve instruction. <p>(B) support of education programs for teachers of career and technical education in public schools and other public school personnel who are involved in the direct delivery of educational services to career and technical education students, to ensure that such teachers and personnel stay current with all aspects of industry.</p> <p>(C) internship programs that provide relevant business experience; and</p> <p>(D) Programs designed to train teachers specifically in the effective use and application of technology to improve instruction.</p>	<ul style="list-style-type: none"> • CTE teachers, administrators, and counselors afforded professional development opportunities. • System has a comprehensive plan for professional opportunities for all personnel. • Time is provided for teacher preparation and program development. • Meetings during the school year are available to discuss program improvements. • Business and industry members are represented on the program(s) of study advisory committee(s). • A variety of career activities are offered. 	<ul style="list-style-type: none"> • Communications announcing local and professional development activities. • List of personnel attending training • Agendas for local staff development • Professional development plan on file • Daily/master schedule on file • Documentation reflecting staff development or training received by instructor. • Documentation reflecting staff participation in professional organization activity. • Meeting attendance • Meeting agenda • Minutes • Guidelines • Job shadowing, guest speakers, career fairs, internships, etc. 	<ul style="list-style-type: none"> • Communications announcing local and professional development activities. • List of personnel attending training • Agendas for local staff development • Professional development plan on file • Documentation reflecting staff development or training received by instructor. • Documentation reflecting staff participation in professional organization activity. • Meeting attendance • Meeting agenda • Minutes • Guidelines • Job shadowing, guest speakers, career fairs, internships, etc. 	
Advanced Implementation	Initial Implementation	Planning/Development		Corrective Action Required

Education and Training: Implementation of the Core Technical Content Standards

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[Teaching Professions Technical Content Standards: Unit 2.5-2.6](#)
Password: rubric

[Education and Training Technical Content Standards: Unit 3](#)
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Password: rubric

[Education and Training Technical Content Standards Unit 5](#)
Password: rubric

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Presenters

Robin White, superintendent, Great Oaks Career and Technology Schools; Mary Jane Stanchina, executive director, Six-District Educational Compact; Howard Lawson, CTE director, Akron Public Schools

Presentation Title

Change Happens: Leadership Will Make the Difference

Overview

Three career-technical education leaders representing compact, joint vocational and comprehensive districts provide information about how they are setting direction for school districts.

Key Messages

- **Joint Vocational.** Leadership in CTE requires research and risk. Leadership is creating a culture of high expectations with rigorous, embedded staff development. With the decline in jobs and in Ohioans earning advanced college degrees and an increase in the need for more skilled workers, the state's CTE programs are well positioned to prepare the current and future work force. One traditional CTE advantage is its traditional ability to be flexible and make changes to meet business/industry needs. Academics are integrated with strategies such as the individualized academic and career plan (IACP). Great Oaks continuously focuses on its vision, which helps to drive needed change, including the ongoing addition of education partners. Great Oaks has 139 articulation agreements with 22 postsecondary institutions. Students (adult and secondary) can earn 26 college credits for academic subjects taken on the Great Oaks campus. Among offerings for adults at both the career center and college partner sites are a Gateway recovery program which allows adult students to graduate from high school and work on college credit simultaneously.
- **Compact.** The key to successful leadership of CTE is to collaborate and cooperate. Six-District, which includes six schools with a K-12 enrollment of 25,000 students, is lead by a committee of six superintendents. Knowledge of all aspects of CTE and ODE initiatives; state, regional and local economic and workforce development needs; and preK-16 alliances and district cultures is critical. The compact Executive Director is involved in a wide variety of school programs and operations including working with guidance, business management, special education and gifted and talented. District initiatives include capstone projects, career-academic alliances, individual academic and career plans. Academic and career teachers are building respect for what they each do. Postsecondary collaborations include early college, College Tech Prep, Articulation, Dual Credit, CT² Transfer, and scholarships. The compact plan, now in process, will be the vision for the future and identify direction to meet the changing landscape.
- **City.** The Akron Public School District has 27,000 students, 170 teachers, and 34 programs. While overall district enrollment is decreasing, CTE enrollment is up.

The CTE director has a seat on the superintendent's Business Advisory Council. Leadership for CTE involves a variety of skills and knowledge such as:

- Know your people.
- Know your political leaders.
- Keep focused on the best interests of your students.
- Understand curriculum.
- Believe in your people.
- Believe in what you do.
- Have high expectations of the staff and provide professional development to meet those expectations.
- Use data for decision making and get it from multiple sources.
- Be willing to make difficult decisions.
- Be willing to admit you made a mistake.
- Understand where you have positive influence.
- Market your programs.
- Keep an eye on your personal life.
- Provide a vision and a plan on how to implement that vision.

Presenter Quotes

"Give people authority and responsibility to do what they need to do. Then, monitor and thank them." – Howard Lawson

"Leadership is knowledge." – Mary Jane Stanchina

"CTE must be vital to the education and economic growth of communities." – Robin White

Further Information

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4.

Accountability and Evaluation Systems

Oregon CTE Program of Study Approval 2010

<http://www.ode.state.or.us/search/results/?id=225>

Maryland Hospitality Pathways

<http://marylandpublicschools.org/NR/rdonlyres/C46A5E1C-C622-4EBB-89F9-B29ABD3EB0A7/15786/CTEProgramsofStudyFebruary2008PDF.pdf>

California Data Sharing System Cal-PASS

<http://www.cal-pass.org/Newsletters/Volume6Issue1.pdf#page=1>

California Example of Data Analysis

<http://www.cal-pass.org/data/principles.aspx>

South Carolina Example of Data Analysis

http://ed.sc.gov/agency/Accountability/Regional-Services/documents/2009_10_Dashboard.pdf

Career and Technical Education (CTE)

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CTE Program Approval



Oregon Career and Technical Education is a program of study that integrates technical and career skill proficiencies with academic content and prepares students for the workplace, further education, training, and family and community roles.

Oregon CTE Program of Study Application 2010 (Word )  Updated



Please use this Word Form for transmitting an application to ODE for approval of a CTE Program of Study. Older versions of program applications will not be accepted after March 1, 2010.

Guide to Using the "Oregon CTE Program of Study Application 2010" (Word )  New



This Guide will help you understand the new CTE Program of Study Application and should help answer some of the questions that may come up in filling out the application.


Course to Standard Crosswalk Excel Sample Template (Excel )  New

Use this Excel template to crosswalk the Skill Standards identified for your CTE Program of Study to the courses in the program. **NOTE:** Expand/stretch bottom of Excel frame to see tabs at the bottom.


CTE POS Decision Chart Spreadsheet (Excel )  New

This Excel worksheet shows all of the CTE programs that are being converted to Programs of Study, and the timeframe for those conversions. Be sure to consult this spreadsheet to be sure your programs are approved in a timely manner, and that the programs listed in it correlate with what is listed on ODE's CTE Approved Programs web page.

CTE State Recognized Program Guide & Application has been updated for 2010. Use this Guide and Application if you are applying for approval of a secondary CTE POS component that will not immediately meet all the POS criteria, but which you plan to move to a POS in the next year or two. This State Recognized approval will allow for TSPC licensure/endorsement for teaching CTE courses. Word   New


Application for new Program of Study (Word )

Contacts

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Secondary/Post Secondary Transitions - Ed. Specialist, Business & Management

 Having problems finding something? *start at* **ODE SEARCH**
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Consumer Service, Hospitality and Tourism			
Career Cluster (Framework)	MSDE CTE Pathway Programs	Value Added	Development/Implementation Action
Food and Beverage	<i>Culinary Arts (ACF)</i> <i>CIP # 12.0550</i>	ACF Program Accreditation College Credit American Culinary Federation: www.acfchefs.org	<i>FY07 Pathway Program grants support initial accreditation costs including Self-Study Application and professional development for faculty.</i> <i>Developing statewide articulation agreements.</i>
	<i>Food and Beverage Management (ProStart)</i> <i>CIP # 52.0955</i>	ProStart Certification College Credit National Restaurant Assoc. Educational Foundation: nraef.org/prostart	<i>FY07 Pathway Program grant to support implementation of ProStart program.</i>
Lodging	<i>Hotel Management Lodging Management Program (LMP)</i> <i>CIP # 52.0954</i>	Certified Rooms Division Specialist (CRDS) College Credit www.lodgingmanagement.org	<i>FY07 program development meetings with industry experts, college faculty and LSS instructors.</i>
Travel Management	<i>Hospitality and Tourism (NAF)</i> <i>CIP # 52.0950</i>	College Credit	<i>AOHT Fast Track will be finalized and released by December 2006.</i>
Event Management		National Academy Foundation: www.naf.org	
Attractions and Recreation			
Sales: Customer Services	<i>Careers in Cosmetology</i> <i>CIP # 12.0450</i>	Cosmetology License Testing company: www.experioronline.com MD State Board of Cosmetology: dllr.state.md.us	<i>MSDE sponsored workshops including Redken Color, Milady Test Prep and Related Instructional Materials and procedures.</i>
Marketing and Communications Merchandising / Buying		Part of the Business, Management, Finance Career Cluster – <i>Marketing Pathway</i>	
Logistics		May cross-list with <i>PLTW Engineering</i> and/or <i>Business Management Pathway</i>	

Spotlight on Data:

Time Delays in Course-Taking

It is not uncommon for students to delay entrance into college and/or delay enrollment in key English and math courses. In some cases, these delays may be due to their level of achievement in high school. To examine this possibility, Cal-PASS researchers examined a sample of 68,004 high school students who enrolled in 12th grade English, graduated from high school, and then enrolled in a university English course. Note that community college enrollments were not included in this analysis. The figure below shows the relationship between the grade in 12th grade English and the average (mean) time between 12th grade English and their first attempted university English course.

Results show that most students attempted their first university English course in the fall term after high school graduation, regardless of their success (or non-success) in 12th grade English. For those who did delay enrolling in English past this first university term, students who had earned a C or below in 12th grade English tended to delay approximately one additional term on average than those who had earned an A or B in 12th grade English. The reason for this delay is unknown. It should be noted that those in the data set who earned an A in 12th grade English were three times more likely to enroll at a university than students who earned a C or below in 12th grade English.

Only students in a Cal-PASS consortium could be examined, so results may not generalize to the general population of university students.

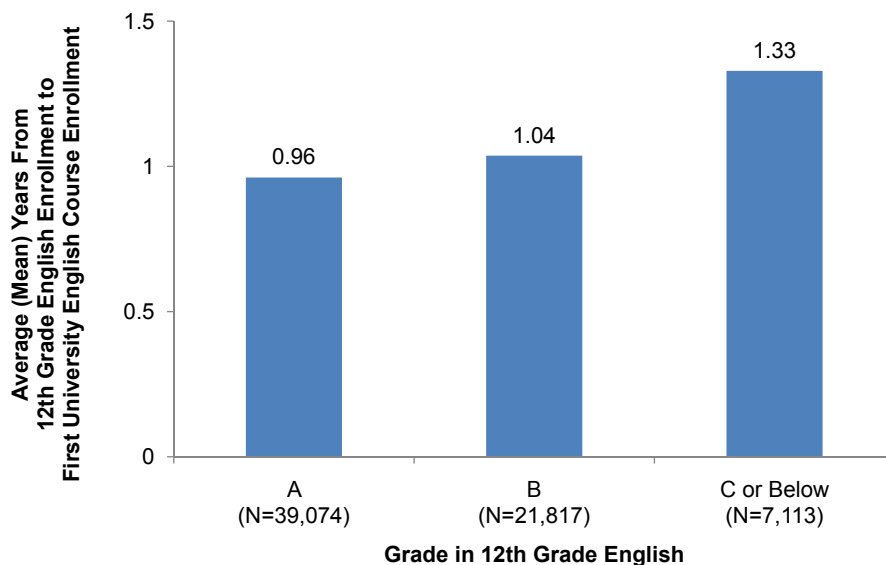
Regional Collaboration

With the recent addition of two Professional Learning Councils (PLCs) in the Santa Clarita Valley region, 64 discipline-specific, intersegmental councils with more than 1,200 faculty participants now meet monthly. PLC fields include math, English, English Language Learning (ELL), counseling, science and Career/Technical Education (CTE). Many PLCs coordinate their projects with other regions, increasing their shared resources and synergistic energy. For a snapshot of the innovations that Cal-PASS PLCs have developed, which tend to result in stronger student transitions from segment to segment, please see www.calpass.org/Councils.aspx.

Many PLC initiatives have led to increased student enrollment in college. In the spring of 2008, a counseling PLC offered a workshop to 71 high school seniors during the California Standards Test (CST) exam week and answered questions about college courses, financial aid, and the registration process. By the spring of 2009, 86 percent of these seniors were enrolled at the local community college, which then institutionalized the PLC's pilot project along with additional districts in the region. Eventually, 321 students had attended the workshops, and 75 percent of them went on to enroll in a course at the community college in fall '09. Students have indicated that the workshop contributed to their decision to transition from high school to community college:

~I don't have a computer, so I wouldn't have applied on my own. I'm glad I went to the presentation.

~Because I have to work full-time, I didn't think I could go to college, but I
continued on page 3



Average (Mean) Time in Years from a Student's 12th Grade English Enrollment to Enrollment in Their First University English Course



Informed by data, powered by inspiration and developed through collaboration—Cal-PASS partners identify problems, develop local solutions and scale them across regions and the state to achieve student success at every level.



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> GUIDING PRINCIPLES OF DATA SHARING

Background

Cal-PASS consortia are being organized for the purpose of sharing data concerning students within the K-12, community colleges and universities in defined geographical regions of California.

The data sharing practices function within a Memorandum of Understanding (MOU) signed by the Consortium members. This MOU delineates the regulations under which the data sharing takes place.

Statement of Purpose

The purpose of the Cal-PASS Data Sharing project is to share data among K-12 schools, community colleges and universities for the purpose of improving instructional programs and student learning and success in the schools, community colleges and the universities.

Guiding Principles

The following principles guide this data-sharing project:

➤ Data Storage

The Specific Data Sharing Consortium will upload, store, and retrieve the collective data on a dedicated server that is specially configured for this project. The server is located at the California Community College Chancellors Office in Sacramento. The server is maintained and operated by the technical staff of the project at no cost to the data-sharing consortium.

➤ Data Ownership

Each school, community college and university retains the right to its own data. The specific Data Sharing Consortium can claim no right to ownership of data produced for Consortium research. Moreover, institutional members of the Consortium are permitted access to data for uses previously approved by the Consortium.

➤ Data Uses

Information produced through this consortium is primarily for internal institutional use.



Public School Districts Totals
Students Declaring a Specific Cluster on their Primary e-IGP

Name of Cluster	Number of Districts	Number of Schools	Number of Students	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
Agriculture, Food, and Natural Resources	66	293	3706	1148	1053	848	628	31
Architecture and Construction	74	339	5869	1588	1758	1463	998	82
Arts, Audio-Video Technology, and Communications	77	366	19693	5002	5219	4725	4392	355
Business Management and Administration	77	355	7976	1537	2003	2119	2059	258
Education and Training	72	336	7643	1898	1755	1846	1902	242
Finance	44	210	1402	345	325	372	333	27
Government and Public Administration	61	259	3223	690	915	854	682	82
Health Science	83	383	27716	6585	7224	7196	6092	619
Hospitality and Tourism	62	279	3173	760	791	867	670	85
Human Services	74	343	7378	1980	2065	1790	1433	110
Information Technology	61	297	3786	990	1008	935	784	69
Law, Public Safety, Corrections, and Security	65	326	9081	2748	2557	2040	1535	201
Manufacturing	56	236	1856	350	531	526	406	43
Marketing	43	196	1518	292	319	453	412	42
Science, Technology, Engineering, and Mathematics	70	352	14750	3835	3947	3631	3056	281
Transportation, Distribution, and Logistics	72	324	4623	1074	1359	1245	877	68

Note: Students may declare more than one cluster or major on an e-IGP; therefore, only the first cluster or major chosen is used for reporting. The primary e-IGP is the approved and locked version of the e-IGP. Only that version is used for reporting. If an e-IGP is created and not designated as primary, then no data is pulled.

Because clusters are designated at the district level, some students may have chosen a cluster that is not offered at their school.

Total	118,770	29,726	31,470	29,665	25,382	2,527
Compare completed IGP's	123,373	30,794	32,821	30,905	26,258	2,595
Difference completed minus cluster totals	4,603	1,068	1,351	1,240	876	68
Difference for 8th to 11th only	4,535					

5.

College and Career Readiness Standards

California CTE Standards

<http://www.cde.ca.gov/ci/ct/sf/documents/ctestandards.pdf>

Mississippi Curriculum Development Process: Description and On-Line Reference

<http://www.mde.k12.ms.us/vocational/curriculum/>

Florida Hospitality Standards

http://www.fldoe.org/workforce/dwdframe/hosp_cluster_frame10.asp

Illinois Manufacturing Standards

http://www.isbe.state.il.us/career/pdf/IT_C2-1.pdf

Florida Curriculum Framework

http://www.fldoe.org/workforce/dwdframe/hosp_cluster_frame10.asp

California CTE Standards

Standards

1.2 Science

Specific applications of Physics standards (grades nine through twelve):

(3.a) Students know heat flow and work are two forms of energy transfer between systems.

(3.g) Students know how to solve problems involving heat flow, work, and efficiency in a heat engine and know that all real engines lose some heat to their surroundings.

(5.a) Students know how to predict the voltage or current in simple direct current (DC) electric circuits constructed from batteries, wires, resistors, and capacitors.

(5.b) Students know how to solve problems involving Ohm's law.

Specific applications of Investigation and Experimentation standards (grades nine through twelve):

(1.a) Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data.

1.3 History–Social Science

Specific applications of United States History and Geography: Continuity and Change in the Twentieth Century standards (grade eleven):

(11.5) Students analyze the major political, social, economic, technological, and cultural developments of the 1920s.

(11.5.7) Discuss the rise of mass production techniques, the growth of cities, the impact of new technologies (e.g., the automobile, electricity), and the resulting prosperity and effect on the American landscape.

(11.7) Students analyze America's participation in World War II.

(11.7.6) Describe major developments in aviation, weaponry, communication, and medicine and the war's impact on the location of American industry and use of resources.

(11.8) Students analyze the economic boom and social transformation of post-World War II America.

(11.8.7) Describe the effects on society and the economy of technological developments since 1945, including the computer revolution, changes in communication, advances in medicine, and improvements in agricultural technology.

(11.11) Students analyze the major social problems and domestic policy issues in contemporary American society.

(11.11.3) Describe the changing roles of women in society as reflected in the entry of more women into the labor force and the changing family structure.

State Standards for CTE

Mississippi CTE programs at the [secondary](#), [Tech Prep](#), [postsecondary](#) and [adult/workforce](#) levels use a standardized, statewide [curriculum](#) developed by the [Research and Curriculum Unit](#) at [Mississippi State University](#). The statewide curriculum is revised by a team of program area instructors every four years based on research in the field, as well as the results of surveys of program area instructors and related industry personnel. All Mississippi CTE curricula are based on national and state occupational standards, state academic standards and standards from the [Partnership for 21st Century Skills](#).

Keys to your
FUTURE

Mississippi Department of Education
Office of Vocational & Technical Education



MS OVTE | SERVICE AREA PROGRAMS | STUDENT ORGANIZATIONS | TECH PREP

CURRICULUM

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Every vocational program follows a standardized, state-wide curriculum. Each curriculum is revised by a team of program area instructors every four years based on research in the field, as well as the results of surveys of program area instructors and related industry personnel. Each curriculum references related national and/or state academic, workplace, technology, and industry standards in each unit or course. Exemplary, current references are listed for each unit or course as well.

Over 100 different curricula are offered through Mississippi Vocational Education and available to you online in a PDF document. Six vocational areas in both the Secondary and Postsecondary levels are available as well as curricula for Adult Short-Term Programs and the Tech Prep Courses.

Download Curriculum

[Secondary](#)

[Postsecondary](#)

[Adult Short-Term](#)

[Tech Prep](#)

You must either have installed or download and install the Adobe Acrobat Reader before downloading these documents. If you have tried to download a curriculum and the computer gives you an error message or the document(s) do not display, more than likely you do not have the Acrobat Reader installed on your computer. Click on the icon below only if you need help downloading the reader.



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Site Last Updated |:| August 26, 2006
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SOURCE: <http://www.mde.k12.ms.us/vocational/curriculum/>

Florida Hospitality Standards

Standards

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify careers in the hospitality and tourism industry.
- 02.0 Demonstrate knowledge of the hospitality and tourism industry.
- 03.0 Demonstrate employability skills necessary for success in hospitality and tourism occupations.
- 04.0 Explain the importance of employability skills and entrepreneurship skills.
- 05.0 Solve problems using critical thinking skills, creativity and innovation.
- 06.0 Demonstrate human relations skills necessary for success in hospitality and tourism occupations.
- 07.0 Describe the importance of professional ethics and legal responsibilities.
- 08.0 Use information technology tools.
- 09.0 Use oral and written communication skills in creating, expressing, and interpreting information and ideas.
- 10.0 Demonstrate proficiency in applying communication and technology skills in the hospitality and tourism industry.
- 11.0 Explain economic principles as related to the hospitality and tourism industry.
- 12.0 Identify marketing and business fundamentals related to the hospitality and tourism industry.
- 13.0 Identify sales techniques and procedures appropriate for use in the hospitality and tourism industry.
- 14.0 Demonstrate mathematics knowledge and skills.
- 15.0 Perform mathematical operations related to hospitality and tourism occupations.
- 16.0 Operate technology, computer systems, and the Internet.
- 17.0 Understand and demonstrate proficiency using a computer reservation system.
- 18.0 Demonstrate an understanding of computer reservation system records.
- 19.0 Demonstrate the importance of standardization in the airline industry.
- 20.0 Perform functions that are associated with the computer reservation system.
- 21.0 Recognize functions associated with making a lodging reservation.
- 22.0 Recognize functions associated with making a ground transportation reservation.
- 23.0 Recognize functions associated with a cruise reservation.
- 24.0 Assess the impact of technology and automation on the travel reservation industry.
- 25.0 Demonstrate proficiency in applying communication, leadership, and customer relations skills in the travel and tourism industry.

- 26.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 27.0 Apply employability skills necessary for success in the travel and tourism industry.
- 28.0 Demonstrate science knowledge and skills.
- 29.0 Demonstrate language arts knowledge and skills.
- 30.0 Perform designated job skills.
- 31.0 Demonstrate work ethics.
- 32.0 Explain marketing principles as they relate to travel and tourism.
- 33.0 Demonstrate sales and customer service techniques in the selling of travel and tourism products.
- 34.0 Describe the roles within teams, work units, departments, organizations, interorganizational systems, and the larger environment.
- 35.0 Demonstrate proficiency in applying higher level mathematical skills unique to travel and tourism.
- 36.0 Discuss the Internet as a travel and tourism marketing tool.
- 37.0 Discuss the needs of the business traveler.
- 38.0 Research conservation and Green initiatives in the hospitality industry.
- 39.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance.
- 40.0 Examine the impact of meetings, conventions, conferences, and incentive travel.
- 41.0 Examine facts and principles related to the cruise industry.
- 42.0 Examine facts and principles related to the air travel industry.
- 43.0 Examine facts and principles related to the ground travel industry.
- 44.0 Examine facts and principles related to the lodging industry.
- 45.0 Examine facts and principles related to leisure travel.
- 46.0 Describe the development of the tour package.
- 47.0 Explain options for selling travel and tourism products.
- 48.0 Create a sales promotion tool for a travel and tourism product.
- 49.0 Develop a plan for a career in the travel and tourism industry.
- 50.0 Demonstrate personal money-management concepts, procedures, and strategies.

Lesson C2-1

Identify Manufacturing Tools, Equipment, and Technologies

Unit C. Basic Technical Skills

Problem Area 2. Identify Tools and Equipment

Lesson 1. Identify Manufacturing Tools, Equipment, and Technologies

Illinois State Goal and Learning Standard. This lesson is correlated with the following State Goal and Learning Standard:

State Goal 1: Read with understanding and fluency.

Learning Standard C: Comprehend a broad range of reading materials.

Performance Descriptor I/4: Identify and analyze the meanings of specialized vocabulary/terminology.

State Goal 3: Write to communicate for a variety of purposes.

Learning Standard A: Students who meet the standard can use correct grammar, spelling, punctuation, capitalization, and structure.

Performance Descriptor E/6: Demonstrate appropriate use of various parts of speech.

State Goal 5: Use the language arts to acquire, assess, and communicate information.

Learning Standard C: Students who meet the standard can apply acquired information, concepts, and ideas to communicate in a variety of formats.

Performance Descriptor G/4: Design and present a project (e.g., written report, graphics, visuals, multi-media presentation).

Standards for Technological Literacy. Standard 19: Students will develop an understanding of and be able to select and use manufacturing technologies. Performance elements F, L: Manufacturing systems use mechanical systems that change the form of materials through the processes of separating, forming, combining, and conditioning them. Servicing keeps products in good operating condition.

Workplace Skills: D/1: Communicating on the Job; communicate orally with others. J/8: Demonstrating Work Ethics and Behavior; demonstrate a willingness to learn.



July 2010

**Florida Department of Education
Curriculum Framework**

Program Title: Hospitality and Tourism
Program Type: Career Preparatory
Career Cluster: Hospitality and Tourism

	Secondary	PSAV
Program Number	8845100	M811040
CIP Number	0208110400	0208110400
Grade Level	9-12, 30, 31	30, 31
Standard Length	4 credits	600 hours
Teacher Certification	BUS ED 1@2 TEACH CDE @7 MKTG 1 DIST ED @7 TRANSPORT @7G HOTEL TRNG @7G MKTG MGMT @7G	BUS ED 1@2 TEACH CDE @7 MKTG 1 DIST ED @7 TRANSPORT @7G HOTEL TRNG @7G MKTG MGMT @7G
CTSO	DECA	DEX
SOC Codes (all applicable)	434081 434181 413041	434081 434181 413041
Facility Code	222 http://www.fldoe.org/edfacil/sref.asp (State Requirements for Educational Facilities)	
Targeted Occupation List	http://www.labormarketinfo.com/wec/TargetOccupationList.htm	
Perkins Technical Skill Attainment Inventory	http://www.fldoe.org/workforce/perkins/perkins_resources.asp	
Industry Certifications	http://www.fldoe.org/workforce/fcpea/default.asp	
Basic Skills Level	N/A	Mathematics: 9 Language: 9 Reading: 9

Purpose

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Hospitality and Tourism career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the Hospitality and Tourism career cluster.

The content includes but is not limited to coursework that prepares students for employment in the travel and tourism industry as reservation and transportation agents, travel destination specialists, tour operators, transportation attendants, cruise ship consultants, or to provide supplemental training for those persons previously or currently employed in these occupations. This program includes components on planning, management, finance, technical and production

6.

Course Sequence

CCTI Health Sciences Career Pathway

<http://www.league.org/league/projects/ccti/ccluster/HS-37-POS.pdf>

Maryland Automotive Program Sequence

http://www.marylandpublicschools.org/MSDE/divisions/careertech/career_technology/programs/

Pennsylvania Articulation Agreement Process

http://www.education.state.pa.us/portal/server.pt/community/Career_&Technical_Education/7335/

Texas Course Sequence

<http://www.txcareerclusters.org/pages/programs/law.html>



SAMPLE

Health Science: Therapeutic Services Career Pathway Plan of Study for ► Learners ► Parents ► Counselors ► Teachers/Faculty

This Career-Pathway Plan of Study (based on the Therapeutic Services Pathway of the Health Science Career Cluster) can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. *This Plan of Study, used for learners at an educational institution, should be customized with course titles and appropriate high school graduation requirements as well as college entrance requirements.

EDUCATION LEVELS	GRADE	English/ Language Arts	Math	Science	Social Studies/ Sciences	Other Required Courses Other Electives Recommended Electives Learner Activities	*Career and Technical Courses and/or Degree Major Courses for Therapeutic Services Pathway	SAMPLE Occupations Relating to This Pathway		
<i>Interest Inventory Administered and Plan of Study Initiated for all Learners</i>										
SECONDARY	9	English/ Language Arts I	Algebra I	Biology	State History Civics	All plans of study should meet local and state high school graduation requirements and college entrance requirements. Certain local student organization activities are also important including public speaking, record keeping and work-based experiences. A foreign language is recommended.	<ul style="list-style-type: none"> Health Science I: Introduction to Health Science Information Technology Applications Health Science II: Health, Safety and Ethics in the Health Environment Health Science III: Employment in Health Occupations 	<p>Occupations Requiring Less than Baccalaureate Degree</p> <ul style="list-style-type: none"> ▲ Anesthesiologist Assistant ▲ Certified Nursing Assistant ▲ Clinical Medical Assistant ▲ Data Entry Coordinator ▲ Dental Assistant/Hygienist ▲ Dental Lab Technician ▲ EMT/Paramedic ▲ Home Health Aide ▲ Licensed Practical Nurse ▲ Massage Therapist ▲ Orthotist/Prosthetist ▲ Pharmacist/Pharmacy Technician ▲ Physical Therapist/Assistant ▲ Radiologic Technician ▲ Registered Nurse ▲ Respiratory Therapist ▲ Surgical Technician 		
	10	English/ Language Arts II	Geometry	Chemistry	U.S. History					
	11	English/ Language Arts III	Algebra II	Physics or other science course	World History Sociology					
<i>College Placement Assessments-Academic/Career Advisement Provided</i>										
12	English/ Language Arts IV	Pre-Calculus or Calculus or Statistics	Anatomy and Physiology	Psychology Economics	<ul style="list-style-type: none"> Health Science IV: Introduction to Therapeutic Services 	<p>Occupations Requiring Baccalaureate Degree</p> <ul style="list-style-type: none"> ▲ Athletic Trainer ▲ Audiologist ▲ Chiropractor ▲ Dentist ▲ Dietician ▲ Exercise Physiologist ▲ Nurse Practitioner ▲ Occupational Therapist ▲ Optometrist ▲ Physician (MD/DO) ▲ Physician's Assistant ▲ Psychologist ▲ Recreation Therapist ▲ Social Worker ▲ Speech Language Pathologist ▲ Veterinarian 				
<i>Articulation/Dual Credit Transcribed-Postsecondary courses may be taken/moved to the secondary level for articulation/dual credit purposes.</i>										
POSTSECONDARY	Year 13	English Composition	Algebra	Chemistry Biological Science			American Government Psychology	All plans of study need to meet learners' career goals with regard to required degrees, licenses, certifications or journey worker status. Certain local student organization activities may also be important to include. Work-based learning is an integral part of this pathway.	<ul style="list-style-type: none"> Health Science V: Therapeutic Services Preparation Continue Courses in the Area of Specialization 	<p style="text-align: right;">A-38</p>
Year 14	Speech/ Oral Communication Technical Writing	Statistics or Calculus	Microbiology	American History Sociology						
Year 15	Continue courses in the area of specialization.									
Year 16	<ul style="list-style-type: none"> Complete Therapeutic Services Major (4-Year Degree Program) 									

SAMPLE

STEP 2D: Program Sequence Matrix (Include the program sequences for High School, Associate's Degree, and Bachelor's Degree programs)

Identify the pathway options. Complete the program matrix for the 9-12 program, plus, for Tech Prep programs include the matrix for the two- or four-year college program of study. Indicate which courses receive CTE credit by placing the number of credits in parentheses after each CTE course title. Place an asterisk (*) next to the course identified as the concentrator course indicating that the student has completed 50% of the program.

The program matrix defines a planned, sequential program of study that consists of a minimum of four credits in CTE coursework including work-based learning and/or industry-mentored projects. Work-based learning experiences or industry-mentored projects must be included in the program to obtain approval. The program matrix includes the recommended academic and CTE courses identified for the pathway and postsecondary linkages (i.e., dual enrollment, Tech Prep, transcribed and articulated credit).

CTE programs typically begin after ninth grade and do not include career exploration courses. Courses such as computer applications and keyboarding are not included in the completer sequence because they provide prerequisite skills for both academic courses and CTE programs. Academic courses are counted only if they are tailored to serve mainly CTE students and have been revised to reflect industry skill standards. Technology Education or Advanced Technology Education courses are not acceptable for credit in the career and technology education program sequence.

Pathway/Program:	Automotive Technician		CIP Number (For MSDE Use)	47.0645
Graduation Requirements	Grade 9	Grade 10	Grade 11	Grade 12
English - 4	English 9	English 10	English 11	English 12
Social Studies - 3	US Government	World History	US History	
Mathematics - 3	Algebra 1	Geometry	Algebra 2	
Science - 3	Physical Science	Biology	Chemistry	
Physical Education - .5 Health Education - .5	.5 PE	.5 Health		
Fine Arts - 1	.5 Fine Arts	.5 Fine Arts		
Technology Education - 1	Technology Education			
CTE Completer Program – 5 *concentrator course			Suspension and Steering (1) Brakes (1)	*Electronic/Electrical Systems (2) Engine Performance (1) (**WBL)
Foreign Language - 2 and/or Advanced Tech Ed - 2	Spanish 1	Spanish 2		
<p>Provide a list of examples of careers students are preparing to enter and postsecondary options: Automobile Service Tech, Automobile Master Mechanic, Automobile Speciality Tech, Electronic Equipment Installer & Repairer - motor vehicle.</p> <p><i>* Concentrator course is the 2nd course in the sequence.</i> ***Work-Based Learning (WBL) is an integral component of the program. WBL should be incorporated into the program dependent upon LSS delivery system (i.e. integrated or capstone WBL experience).</p>				

Perkins Statewide Articulation Agreement Postsecondary Discussion Concerning Articulation of Credit With PDE developed CTE Program(s) of Study

There are many ways a postsecondary institution may conduct an examination of the PDE developed CTE Program of Study Secondary Competency Task List to determine the articulation and awarding of postsecondary credit to a specific PDE developed CTE Program of Study. Thus, each postsecondary institution will decide how the articulation discussion process will ultimately work at their local level. However, in conducting the BCTE pilot study involving the Perkins Statewide Articulation Agreement reporting process, several suggestions were made for facilitation of the review process from the pilot study sites.

The following steps are to be considered when postsecondary institutions gather campus faculty and deans in their CTE-related Classification of Instructional Program (CIP) area to discuss articulation and the awarding of postsecondary credit.

1. **Identify Associated CTE Classification of Instructional Programs.** Working with the postsecondary institution's Perkins contact, the institution's point of contact representative should first identify which PDE developed CTE Program(s) of Study are identified in their institution's Perkins Plan.
2. **Form a discussion group.** The local institution's point of contact representative meets with postsecondary institution administration and determines which campus faculty members and deans should be gathered to comprise and serve on the Articulation Review Committee (ARC) for examining the PDE developed CTE Program(s) of Study and determining the possibility for awarding course credit.
3. **Hold an orientation meeting.** Point of contact representative holds an orientation meeting with the Articulation Review Committee and distributes the specific PDE Program(s) of Study developed, including the Secondary Competency Task List for the POS. A list of developed POS are available at the PDE website listed below:
http://www.pde.state.pa.us/career_edu/cwp/view.asp?A=115&Q=129230&career_eduNav=|3842|
4. **Conduct an individual faculty review.** Prior to the next group discussion/meeting, individual campus faculty review the PDE developed Program of Study Secondary Competency Task List and identify alignment between the secondary tasks and possibility for course credit. Identify course number, course title and number of credits that will be articulated in a specific CTE related postsecondary institution CIP program. Allow one week of time for the individual faculty review to be completed.
5. **Conduct an ARC review.** Once the individual review is completed, the local institution's Point of Contact representative should re-convene the articulation review committee (ARC) group, discuss individual faculty findings, and conduct additional discussion activities detailed in numbers 7-8-9 below.
6. **Determine postsecondary CIPS that align for credit.** Arrive at a local, institutional decision concerning which associated CTE-related CIPs offered at the postsecondary institution will allow for the articulation of credit to occur. You may find more than one program where articulated credit could be awarded. Many PDE developed Program(s) of Study may align to several CIPS offered at the postsecondary institution. Refer to the example below:

Example: PDE Secondary Program of Study CIP 19.708 Child Care Support Services Management may align to the following postsecondary program offerings: 13.1202 Elementary Education/Teaching, 19.0706 Child Development, 19.0709 Child Care Provider/Assistant and 19.0708 Child Care Support Services Management. For a complete list of Postsecondary Related CIPS to the specific PDE developed Program of Study, see your institution's point of contact representative for this information.

7. **Collect data elements needed for articulation.** Once the institution selects the postsecondary CIPs where the articulated credit can be awarded, the local postsecondary institution will determine data elements. The Point of Contact serves as a recorder and captures the discussion and decisions made in terms of the following ***four data elements:***
 - a. *Which specific postsecondary CIP Program number(s) align(s) to the PDE developed Program of Study Secondary Competency Task List?*
 - b. *What are the specific postsecondary course numbers where credit will be awarded in that specific postsecondary CIP?*
 - c. *What are the postsecondary course titles where credit will be awarded in that specific postsecondary CIP?*
 - d. *What are the number of credits awarded for each postsecondary course which aligns to the PDE developed Program of Study Secondary Competency Task List?*

8. **Discuss additional course alignment opportunities for articulated credit.** In some cases, the Secondary Competency Task list included in a PDE developed Program of Study may be sufficient in depth to allow for general education credit to be awarded in other courses. Don't forget to check possible alignment for the awarding of articulated credit in general education course areas. Refer to the example below:

Example: When examining the PDE Program of Study developed for welding (CIP 48.0508- Welding Technology/ Welder), a pilot study postsecondary institution site found that the safety competencies embedded in the Secondary Competency Task List developed for this POS was sufficient to award 3 credits for the course: Safety in the Workplace.

9. **Report the data.** Give information stated in #6 above to your institution's point of contact representative so that person can enter this data into the www.collegetransfer.net website. You institution's point of contact representative has been given the necessary username and password access which allows the reporting of the data elements needed to successfully complete the articulation of credit process at this website. Also, the point of contact representative should discuss with appropriate institution personnel the manner in which the articulated credits awarded will appear on the student's transcript.

10. **Multiple POS?** If your institution has selected more than one PDE developed Program of Study, to work with this year in your Perkins Local Plan, and then begin the articulation process again at step 1.

Legal Services

Course Overview: Focuses on careers in planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

Career Goal (O*NET Code): Lawyer (23-1011), Administrative Law Judge (23-1021), Legal Secretary (43-6014), Magistrate (23-1023), Law Clerk (23-2092), Paralegal (23-1023).

Student Name: _____
Grade: _____
School: _____

SUGGESTED COURSEWORK

Middle School	8th	HS Courses: (Local districts may list high school credit courses here)
	9th	English I Algebra I Biology World Geography Languages other than English I Physical Education
	10th	Career-Related Electives: Principles of Law, Public Safety, Corrections and Safety English II Geometry Chemistry World History Languages other than English II
	11th	Core Courses: Law Enforcement I or Business Information Management or Public Management & Administration English III Algebra II Physics United States History Professional Communications
	12th	Career-Related Electives: Court Systems & Practices or Forensic Science or Sociology or Career Preparation I or Psychology or Problems and Solutions or Political Science I English IV AP Statistics Environmental Systems Government/Economics Fine Arts
		Career-Related Electives: Practicum in Law, Public Safety, Corrections and Safety or Law Enforcement II or Accounting I or Career Preparation II or Business Law or Political Science II

EXTENDED LEARNING EXPERIENCES

Curricular Experiences: Business Professionals of America Future Business Leaders of America SkillsUSA Technology Student Association	Extracurricular Experiences: Explorer Program Language Immersion Programs Mock Trial School Newspaper Student Government UIL Academic Competitions Yearbook
Career Learning Experiences: Career Preparation Internship Job Shadowing	Service Learning Experiences: Boy Scouts of America Campus Service Organizations Community Service Volunteer Girl Scouts of America Peer Mentoring / Peer Tutoring

COLLEGE CREDIT OPPORTUNITIES -- High School

Students should take Advanced Placement (AP), International Baccalaureate (IB), dual credit, Advanced Technical Credit (ATC), or locally articulated courses (Tech Prep), if possible. List those courses that count for college credit on your campus.

On-the-Job Training	Government Internship	Law Office	Legal Assistant	Professional Associations: American Bar Association National Association of Legal Assistants National Bar Association National Conference of Black Lawyers National Federation of Paralegal Association National Legal Aid and Defender Association State Bar of Texas Texas Academy of Family Law Specialists Texas Criminal Defense Lawyers Association
Certificates	Microsoft Office Specialist	OSHA CareerSafe	Career Options: Administrative Technician	Career Options: Legal Secretary Paralegal Court Reporter
Associate Degrees	Business Criminal Justice	Government Administration Law	Career Options: Court Clerk Law Assistant	Career Options: Private Law Practice Public Interest Law Negotiator
Bachelor Degrees	Criminal Justice English Pre-Law	Government History	Career Options: Government Legal Librarianship	Career Options: Instructor/Professor State/Federal Agency Admin. Judge
Graduate Degrees	Administration of Law Criminal Justice	Interpol/International Law Enforcement Law	Career Options: Administration of Legal Services Lawyer	

This plan of study serves as a guide, along with other career planning materials, for pursuing a career path and is based on the most recent information as of 2009. All plans meet high school graduation requirements as well as college entrance requirements.

7.

Credit Transfer Agreements

Ohio EMT Credit Transfer

http://regents.ohio.gov/careertechtransfer/ctags/outcomes/CTAG_EMT_I.pdf

Georgia Move on When Ready Legislation

http://www.doe.k12.ga.us/DMGetDocument.aspx/MOWR_Guidelines011910.pdf?p=6CC6799F8C1371F6A69629F4BFBCE78DBD08B7A73AEBE2DB9EB4924F8FF1A3E5&Type=D

Illinois Alignment Process

<http://www.itransfer.org/students.aspx>

Illinois Transfer Policy

<http://cte.ed.gov/docs/stateplan/IL5YearStatePlan.pdf>

Ohio Articulation Legislation

<http://regents.ohio.gov/careertechtransfer/archives/documents/HB66Language.pdf>

New Jersey Program Approval Process

<http://www.state.nj.us/education/voc/occprapp.pdf>

Florida Interinstitutional Articulation Agreements Development Process

<http://www.fldoe.org/articulation/pdf/interinstitutional-articulation-agreements.pdf>

Adopted

**Career Technical Credit Transfer (CT²)
Emergency Medical Technician-Intermediate
Career Technical Assurance Guide (CTAG)
October 17, 2008**

The following course or Career-Technical Assurance Number (CTAN) is eligible for transfer between career-technical education, adult workforce education, and post-secondary education.

CTEMTI003 – Emergency Medical Technician – Intermediate	Credits: Proposed 8 Semester and 12 Quarter
Advising Notes: Those persons holding current Ohio certification as an EMT-Intermediate (I) will be given what the receiving institution is offering as credit for its CT ² approved EMT-I course. The awarding of credit for the EMT-I course of study may decrease the time to associate degree completion, when such a degree is offered, but will not replace any portion of the EMT – Basic or the EMT-Paramedic curricula as the later two are separate courses of study. Prerequisite: A valid and current State of Ohio EMT Intermediate Certificate.	
Module I	Preparatory
Module II	Airway Management and Ventilation
Module III	Patient Assessment
Module IV	Trauma
Module V	Medical Emergencies
Module VI	Special Considerations
Clinical Experience and Pre-hospital Internship	
Minimum Hours = 130	
Note: Credit hours assigned to CTANs are “relative values,” which are used to help determine the equivalency of submitted coursework or content. Once approved by a validation panel as a CT² course, students will be given what the receiving institution is offering as credit for its approved course.	

The CTAN illustrates the learning outcomes that are equivalent or common in introductory technical courses. In order for completers to receive the indicated credit, institutions must document that their course/program content matches the learning outcomes in the CTANs. The program outcomes identified below represent the **technical course/content** found in EMT-Intermediate programs as defined by The State Board of Emergency Medical Services and the Ohio Revised Code 4765. In some cases, completers must also hold certain licenses and/or certifications or have satisfied specific external validators such as the examination to acquire an EMT-Intermediate certificate.

GUIDELINES FOR MOVE ON WHEN READY

Overview

Move on When Ready provides opportunities for high school juniors and seniors to enroll full-time in postsecondary institutions to earn both high school and college credits simultaneously. Funding for Move on When Ready is provided through the high school full-time equivalent (FTE) program count.

Student Eligibility

Students are eligible to participate in Move on When Ready if they are entering 11th or 12th grade, as determined by the system, and spent the prior school year in attendance at a public high school in Georgia. Participating students must have been enrolled for funding purposes during the preceding October and March full-time equivalent (FTE) program counts. Students who meet these qualifications can apply to eligible institutions for admission. Students seeking to enroll under MOWR **must** meet the dual enrollment admission requirements as set by the institution. Once admitted, the participating student will take all coursework at or through the eligible institution or virtual courses approved by the State Board of Education.

Eligible Institutions

Institutions eligible to participate in the Move on When Ready Program include the following:

- A unit of the University System of Georgia,
- A branch of the Technical College System of Georgia,
- A private independent nonprofit postsecondary institution eligible for tuition equalization grants, or
- A private proprietary postsecondary institution eligible for tuition equalization grants.


Participation may vary from institution to institution. Interested parties should contact the institution to verify eligibility and participation.

Coursework

Once admitted to an eligible postsecondary institution, the participating Move on When Ready student will take all coursework at or through the eligible institution or virtual courses approved by the Georgia State Board of Education. Courses may be taken during the traditional public school day or beyond the regular hours. Move on When Ready courses must be selected from the Accel, Dual Enrollment Matrix or GaDOE List of State-Funded 9-12 Course lists.

Testing Requirements

Move on When Ready students must meet all state assessment requirements, including End of Course Tests and the Georgia High School Graduation Tests, as referenced in State Board of Education Rule 160-3-1-.07 Testing Programs- Student Assessment.



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iTransfer

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Illinois Articulation Initiative

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Articulation Advocate

Transfer Resources

News

Are you at Right Place ?

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Welcome Students

Transferring schools is a complicated process and we are here to help. [Check this link if you are unsure of the process of transferring.](#)

If you're planning to attend **more than one** institution as you earn your degree, relax! The iTransfer Web site will help you plan ahead to transfer successfully between participating IAI schools and get that valuable piece of paper; a diploma! This page highlights items that we feel are particularly useful for students. We encourage all visitors to browse the [iTransfer website](#).

Illinois Articulation Initiative (IAI)

The Illinois Articulation Initiative (IAI) works best for **students who know they are going to transfer but undecided on the college or university** that will grant their baccalaureate degree. IAI is a statewide GECC transfer agreement, which is valid among more than 100 participating college or universities in Illinois.

Important links:

- [The IAI Gen Ed \(GECC\) worksheet for students who attended Multiple Schools](#)
- [The IAI Gen Ed \(GECC\) worksheet for students who attended Single School](#)
- [The Illinois Baccalaureate Majors' Recommendations \(IAI Majors\)](#)
- [Participating Schools](#)
- [Transfer information](#)
- [Your Guide to College Transfer - helping you transfer in Illinois pdf](#)

SOURCE: <http://www.itransfer.org/Students.aspx>

In addition, Illinois will approve career and technical education programs for funding based on Illinois State Board of Education criteria for program approval. Programs are approved as a part of the Regional Plans. Regardless of which instructional program is being developed to obtain program approval for funding, careful consideration must be given to the following program approval elements: The criteria for approving career and technical education programs are included in Appendix A. The Illinois Community College Board uses a similar process to approve programs at the postsecondary level; these criteria for approving career and technical education programs are included in Appendix B.

- i. Incorporate secondary education and postsecondary education elements;

A.2(a)(i) – Response

Joint planning that includes secondary and postsecondary representatives will be used to strengthen Programs of Study at the state and local levels. Regional consortia and community colleges are encouraged to use joint advisory councils that serve secondary and postsecondary levels. Where all tasks for any occupation cannot be taught through secondary course offerings, postsecondary articulation components, as appropriate, have been established.

- ii. Include coherent and rigorous content, aligned with challenging academic standards, and relevant career and technical content in a coordinated, non-duplicative progression of courses that align secondary education with postsecondary education to adequately prepare students to succeed in postsecondary education;

A.2(a)(ii) – Response

In addition to technical skills and industry certifications, program content must reflect the integration of academic and workplace skills. Curriculum must be aligned with the *Illinois Learning Standards* and industry certifications, when available. Dual enrollment, dual credit options are encouraged in coordination with the Illinois Community College Board and are viable components of the program of study.

- iii. 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

A.2(a)(iii) – Response

Dual or concurrent enrollment ensures involvement of all the appropriate agencies in identifying responsibilities and resources that can be shared to ensure expanded opportunities, efficiency, and quality of the programs. Articulation deals not only with curriculum development, but also with the delivery of programs and coordination of resources and services. Articulation agreements between regional delivery systems and

postsecondary institutions identify strategies to facilitate program alignment; student transition; shared facilities, equipment, and staff; and cooperative program planning and evaluation. The Illinois Articulation Initiative is a statewide effort to coordinate the transfer process, the types of transfer and resources available to students from participating Illinois colleges or universities.

- iv. Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree;

A.2(a)(iv) – Response

Experience in and understanding of all aspects of the industry is required, including alignment with industry certifications where available and appropriate.

- (b) How you, in consultation with eligible recipients, will develop and implement the career and technical Programs of Study described in (a) above;

A.2(b) – Response

Eligible recipients from the secondary and postsecondary levels of education will participate on the Programs of Study committees as they are being developed. They will assist in professional development statewide and regionally on the implementation of the Programs of Study.

- (c) How you will support eligible recipients in developing and implementing articulation agreements between secondary education and postsecondary education institutions;

A.2(c) – Response

The Education for Employment Regional Systems (regional consortia of schools) and postsecondary institutions will have access to a guide to assist them with the development and implementation of articulation agreements.

- (d) How programs at the secondary level will make available information about career and technical Programs of Study offered by eligible recipients;

A.2(d) – Response

Through consultation with local educators, the Illinois State Board of Education will make available Programs of Study models. These will be posted on the Illinois State Board of Education website and disseminated through the Education for Employment Regional Delivery Systems to local schools.

- (e) The secondary and postsecondary career and technical education programs to be carried out, including programs that will be carried out by you, to develop, improve, and expand access to appropriate technology in career and technical education programs;

Sec. 3333.162. (A) As used in this section, "state institution of higher education" means an institution of higher education as defined in section 3345.12 of the Revised Code.

(B) By April 15, 2007, the Ohio board of regents, in consultation with the department of education, public adult and secondary career-technical education institutions, and state institutions of higher education, shall establish criteria, policies, and procedures that enable students to transfer agreed upon technical courses completed through an adult career-technical education institution, a public secondary career-technical institution, or a state institution of higher education to a state institution of higher education without unnecessary duplication or institutional barriers. The courses to which the criteria, policies, and procedures apply shall be those that adhere to recognized industry standards and equivalent coursework common to the secondary career pathway and adult career-technical education system and regionally accredited state institutions of higher education. Where applicable, the policies and procedures shall build upon the articulation agreement and transfer initiative course equivalency system required by section 3333.16 of the Revised Code.

(C) By April 15, 2006, the board shall report to the general assembly on its progress in establishing these policies and procedures.

CTE PROGRAM RE-APPROVAL APPLICATION

FOR A CTE PROGRAM OF STUDY ONLY, in the template below, list information on the:

CTE Program of Study Postsecondary Partnerships / Connections.

Postsecondary Partnerships/Connections: List the Postsecondary County Vocational Schools (CVS), Apprenticeship Sponsors, Approved Private Training Providers, County College(s), and/or four - year colleges or universities to which the applicant has aligned coursework via the development of an articulation agreement for the CTE Program of Study. Indicate the industry credential, certificate program, or postsecondary degree with corresponding major that students can pursue that align with the secondary CTE Program of Study. There **MUST be at least one current signed articulation agreement established. Attach the current articulation agreement(s), signed by the superintendent and the college president, with your completed application for approval.**

Postsecondary Connections	Postsecondary CVS/Apprenticeship Sponsor/ Approved Private Training Provider/County College / Four-Year College/University	Name of the Industry Credential, Certificate Program, or Postsecondary Degree with corresponding postsecondary major
	<input type="checkbox"/> Articulation agreement attached	<input type="checkbox"/> Industry credential: _____ <input type="checkbox"/> Certificate program: _____ <input type="checkbox"/> Associates degree / major: _____ <input type="checkbox"/> Baccalaureate degree / major: _____
	<input type="checkbox"/> Articulation agreement attached	<input type="checkbox"/> Industry credential: _____ <input type="checkbox"/> Certificate program: _____ <input type="checkbox"/> Associates degree / major: _____ <input type="checkbox"/> Baccalaureate degree / major: _____
	<input type="checkbox"/> Articulation agreement attached	<input type="checkbox"/> Industry credential: _____ <input type="checkbox"/> Certificate program: _____ <input type="checkbox"/> Associates degree / major: _____ <input type="checkbox"/> Baccalaureate degree / major: _____
	<input type="checkbox"/> Articulation agreement attached	<input type="checkbox"/> Industry credential: _____ <input type="checkbox"/> Certificate program: _____ <input type="checkbox"/> Associates degree / major: _____ <input type="checkbox"/> Baccalaureate degree / major: _____

SAMPLE FORMAT: FLORIDA
Interinstitutional Articulation Agreements

The Interinstitutional Articulation Agreement, as required by section 1007.235, Florida Statutes, should begin with an introductory section that clearly identifies the parties involved, the term (a beginning and ending date) of the agreement, the make-up of the Articulation Committee involved in negotiating and drafting the agreement, and a description of the process by which the agreement is renewed or terminated. Following the introductory information, consider these required components:

1. Please provide contact information for district and college staff preparing the agreement.

Please provide the name, title, telephone number, and e-mail for staff members involved in the preparation of the agreement including one from the district and the other for the college.

2. Please provide a brief introduction to the agreement and a description of the process by which the agreement is renewed and terminated (including the role and composition of your Articulation Committee).

Please provide a brief description of your dual enrollment program. Specifically, state the role and composition of your Articulation Committee; and how you renew and terminate your interinstitutional articulation agreement.

3. Please list the courses and programs that are available to students eligible to participate in dual enrollment.

In addressing the courses and programs available to students, the *Dual Enrollment Course – High School Subject Area Equivalency List* is a great starting point, but should not be viewed as the limits of dual enrollment course offerings. Each district's agreement should take into consideration local needs including magnets, academies, workforce demands, and access to other acceleration mechanisms. Courses offered beyond the equivalency list (along with their locally designated high school subject/credit equivalencies) should be clearly delineated at this point in the agreement. In addition, this section should include a listing of the dual enrollment courses that are offered by the local college and, therefore, available to students as part of the Major Areas of Interest.

4. Please provide your plan for providing guidance services.

The college is responsible for providing guidance services to participating students on the selection of courses in the dual enrollment program. Please state the process by which these services will be provided should be outlined in this section. Each student, preferably through the use of FACTS.org, should develop a plan that includes a list of courses that will result in an Applied Technology Diploma, an Associate in Science degree, or an Associate in Arts degree, OR, if the student identifies a baccalaureate degree as the objective, the plan must include courses that will meet the general education requirements and any prerequisite requirements for entrance into the selected baccalaureate degree program. Advising is the key to students making appropriate selections, and the advising practices that support student course selection should be clearly articulated in this section.

5. Please describe the process by which students are notified of the option to participate.

Please state whether college and/or partnering school district will notify parents about the option for their children to enroll in dual enrollment courses. How and when will this be done? Be specific.

6. Please describe the process by which parents are notified of the option to participate.

Please state whether college and/or partnering school district will notify parents about the option for their children to enroll in dual enrollment courses. How and when will this be done? Be specific.

7. Please describe the process by which students and parents exercise their right to participate.

Please state the procedures that are in place for participation, along with firmly established deadlines. Your agreement should contain specific information regarding the following: application/forms for admission to the program; the recommendations/signatures required for participation; the person to whom students and parents should submit their paperwork; the process by which students register and withdraw from courses; maximum course loads; grade forgiveness; weighting of dual enrollment course grades; and the process by which grades are distributed.

8. Please describe eligibility criteria for student participation in dual enrollment courses and programs.**1). College-credit Dual Enrollment (Includes College-credit ATD, College Credit Certificate, AAS, AA and AA)**

Per section 1007.271(3), Florida Statutes, students must have an unweighted GPA of 3.0 and demonstrate readiness for college coursework through scores on the Common Placement Tests (as established in State Board of Education Rule 6A-10.0315).

2). Career and Technical Certificate Dual Enrollment (Postsecondary Adult Vocation, PSAV)

Per section 1007.271(3), Florida Statutes, participation in career and technical certificate dual enrollment requires a 2.0 unweighted GPA. Any exception to the GPA requirement and/or any additional program admission requirements (such as high school grade level) must be clearly delineated at this point in the agreement.

3). Early Admission

Per section 1007.271(7), Florida Statutes, early admission is described as full-time dual enrollment. Consequently, the eligibility criteria for college-credit dual enrollment also apply to students who enroll as 'early admit' in a postsecondary institution on a full-time basis.

9. Please describe the institutional responsibilities for student screening prior to enrollment and monitoring enrolled students.

A. Describe how students are screened for dual enrollment eligibility prior to enrolling in a dual enrollment course

Please state the requirements for initial eligibility prior to student enrolling in dual enrollment courses. Be specific about college credit, and career and technical dual enrollment courses. Please state if there are additional eligibility requirements for early admits.

In addition to initial eligibility requirements, eligibility for continued participation in the program must be addressed including a clear identification of which GPA is being considered (the college or high school), and how often the GPAs are reviewed.

B. Describe how students' progress is monitored in dual enrollment courses for continued

The delineation of responsibility for ongoing monitoring of participants must be included in the agreement at this point.

In addition to outlining the academic criteria for continued enrollment in the program, this section is a good place to identify behavioral expectations in dual enrollment courses. For example: which entity's code of conduct and consequences will be enforced? Maturity/discipline issues arise regularly, and addressing them in the agreement leaves less room for dispute when these incidents occur.

Legislative Note: Senate Bill 1908, passed during the 2008 Legislative Session, includes a provision requiring the IAA (pursuant to s. 1007.235, F.S.) to stipulate that the college granting the postsecondary credit for a dual enrollment course is responsible for assigning grades for those courses. School districts are prohibited from changing any grade (once assigned by the college) when posting it to the high school transcript.

10. Please describe the criteria by which the quality of dual enrollment courses and programs are to be judged and maintained.

Dual enrollment courses are college courses both in content and outcomes. Dual enrollment instructors must meet the teaching credentials established by the Southern Association of Colleges and Schools (SACS). This agreement must outline the procedures for maintaining the teaching and content integrity of courses. Such procedures should include a plan for recruiting, selecting and evaluating faculty and monitoring of course content. This is the section of the agreement that should make reference to the *Dual Enrollment Statement of Standards*. It is recommended that a copy of the *Statement of Standards* be incorporated into the agreement as an attachment.

11. Please describe institutional responsibilities for the cost of dual enrollment courses and programs.

The financial challenges associated with dual enrollment can be overcome with a strong agreement that employs cost-sharing and cost-saving measures. Combining resources is a realistic way to cover the costs associated with the program. Specific instructional cost arrangements should be delineated in this section of the agreement. For example, who pays for the instructor(s)?

While school districts are responsible for the purchase of their students' textbooks, there are a variety of ways to handle the textbook process. How textbooks are selected, the length of time for use, the manner in which students obtain their books, book return policies, etc. should all be specifically delineated in the agreement.

Students with disabilities must be accommodated as required by law in dual enrollment classes. Several issues related to this topic should be negotiated and spelled out in this agreement. Which entity covers the cost of accommodations? Whose criteria are adhered to when determining the need for accommodations (school district or college)?

12. Please describe the responsibilities for providing student transportation.

This section should clearly outline who is responsible for the cost of transportation for courses taught at locations other than the high school campus. If it is the student's responsibility to provide his or her own transportation, this should be stated in the agreement.

13. Please describe the mechanisms and strategies for reducing the incidence of postsecondary remediation in math, reading, and writing for the first-time enrolled recent high school graduates.

This section should specify the process by which the local articulation committee will: analyze the unique problems that have been identified in this district and develop corrective actions; measure and communicate outcomes; collaborate on the development of strategies for better preparation of students upon graduation from high school; analyze the costs associated with the implementation of postsecondary remedial education and secondary-level corrective actions; and identify the strategies for reducing such costs.

Senate bill 1908, passed during the 1008 Legislative Session, requires that assessment be used by high schools in evaluating the college readiness of selected students prior to 12th grade (beginning in 1008-09). High schools are also required to provide 12th grade students who score below the minimum cut scores with remedial instruction prior to graduation. New high school math, reading, and writing courses were added to the Course Code Directory during the 2008-09 school year to address this requirement. Specifics relating to the process for testing students and the course offerings available at the high school must be outlined in the agreement. In addition, as data becomes available, it should be utilized to assess the effectiveness of the testing program and the associated high school instruction intended to reduce remediation at the college level.

14. Please describe the mechanisms and strategies for promoting career and technical programs of study.

Many districts have a separate "tech prep" articulation agreement in place that thoroughly addresses a plan to make students aware of the program, promotes enrollment, and articulates students through a sequential program of study leading to a postsecondary career or technical education degree or certificate and, when appropriate, an industry credential. If such an agreement exists, it should be referenced in this section and provided as a hyperlink or Web page to this agreement.

Many districts and colleges have separate "Career Pathway" articulation agreements in place that address the transition from secondary career and technical education (CTE) programs to postsecondary CTE programs. These agreements detail specific programs of study available to high school students seeking to continue in the field by enrolling in a linked postsecondary certificate or degree program and indicate the number of articulated credits available for each program of study.

15. Please provide a plan that outlines the mechanisms and strategies for improving the preparation of elementary, middle, and high school teachers.

This section of the agreement must outline a plan for the school district and college to address the ongoing preparation of teachers in the district. The plan should cover both pre-service and in-service activities developed with the intent of improving teacher preparation at all levels and addressing local critical teacher shortages.

16. Please address additional policies and provisions not captured in previous questions.

If you wish to attach information in addition to what is requested in this IAA submission system, please insert hyperlinks to the relevant documents here. In the event that you do not have additional information to add to your agreement, you must enter N/A. This submission system is designed such that you must respond to each item before you can submit your IAA successfully.

17. Review agreement.

18. Please upload a copy of your signature page.

The final section of this agreement is the execution, which includes the appropriate signatures of Florida college and school district representatives. This submission system is designed such that you must upload the signature page before you can submit your IAA successfully.

For additional information or assistance in completing your interinstitutional articulation agreement, refer to: <http://www.fldoe.org/articulation/>

8.

Guidance Counseling and Academic Advisement

Ohio Student Portfolio Online

http://www.ocis.org/materials/Online_Guides/studentguide.htm#IACP

New Jersey Guidance Policy

<http://www.state.nj.us/education/voc/cmajors.htm>

South Carolina Career and Technical Education Guide

<http://ed.sc.gov/agency/Standards-and-Learning/Career-and-Technology-Education/documents/EducatorsGuideClusterGuide.pdf>

Career Pathway Planner



This component of your portfolio lets you do some serious planning starting with choosing one or more of the sixteen career fields that interest you.

Stating your career goal is another important first step in the planning process.



[Home | My Portfolio | Log out]

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My IACP - Roberta Clemens

Student Guide

My Portfolio

Career Fields

A career field is an organizing and curricular tool grouping occupations and broad industries that share a fundamental base of knowledge and skills required for success in pursuing employment and further study. The occupations in OCIS are clustered around these career fields. Select the career fields that appeal to you at this time. You can also select a new field or review previous selections.

[Definitions of the Career Fields.](#)

Current entry edited on nn/nn/nn. [[New](#) | [History](#)]

<input type="checkbox"/> Agricultural & Environmental Systems	<input type="checkbox"/> Health Science
<input type="checkbox"/> Arts & Communication	<input checked="" type="checkbox"/> Hospitality & Tourism
<input type="checkbox"/> Business & Administrative Services	<input type="checkbox"/> Human Services
<input type="checkbox"/> Construction Technologies	<input type="checkbox"/> Information Technology
<input type="checkbox"/> Education & Training	<input type="checkbox"/> Law & Public Safety
<input type="checkbox"/> Engineering & Science Technologies	<input type="checkbox"/> Manufacturing Technologies
<input type="checkbox"/> Finance	<input checked="" type="checkbox"/> Marketing
<input type="checkbox"/> Government & Public Administration	<input type="checkbox"/> Transportation Systems

Save Information

Cancel



Office of Career and Technical Education

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Developing and implementing a comprehensive guidance and counseling system to facilitate career awareness and exploration for all students

A. District boards of education, in fulfillment of the Core Curriculum Content Standards, shall develop and implement a comprehensive guidance and counseling system to facilitate career awareness and exploration for all students.

1. District boards of education shall implement a developmental career guidance and career awareness program, linked to the Core Curriculum Content Standards, which:
 - i. is infused throughout the K-12 curriculum as appropriate for all students;
 - ii. is supported by professional development programs; and
 - iii. takes into consideration the Career Development Standards of the National Standards for School Counseling Programs of the American School Counselor Association.
2. District boards of education shall provide developmental career guidance and career awareness, linked to the Core Curriculum Content Standards, designed to:
 - i. assist students in making and implementing informed educational and occupational choices, including opportunities to change career focus;
 - ii. develop a student's competencies in self-management, educational and occupational exploration, and career planning;
 - iii. make students aware of the relationship among personal qualities, education, training, and the world or work;
 - iv. encourage students to create and maintain portfolios consisting of student accomplishments related to the Cross-Content Workplace Readiness Standards; and
 - v. acquaint students with the relationship between achieving academic standards and the attainment of career goals.
3. District boards of education shall, for students with disabilities age 14 through 21 (or younger, if determined appropriate by the IEP team), incorporate transitional services, including career guidance and counseling, into each student's IEP.

B. District boards of education, in fulfillment of the Core Curriculum Content Standards, shall develop and implement a system of career exploration, for all students, which:

1. Offers students the opportunity to more fully explore career interests within, but not limited to, one or more of the following clustered disciplines linked to the Core Curriculum Content Standards and as measured by the statewide assessment system according to N.J.A.C. 6A:6-4:
 - i. Arts and Humanities;
 - ii. Business and Information Systems;
 - iii. Mathematics, Science, and Technology; and
 - iv. Health and Human Services

2. Allows districts to select the appropriate format for offering career-exploration activities based on district resources, community needs, and student interest;

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3. Allows districts to select the delivery format that may include:

- i. An integrated curriculum, based on the Core Curriculum Content Standards, that provides students the opportunity to acquire information about their career interest and/or take advanced courses linked to their career interests; or
- ii. The development of specialized programs that reflect the needs of students and the community;

4. Instills the concept of the need for continuous learning throughout one's life.

C. District boards of education shall offer all high school students opportunities to more actively experience career exploration by participating in structured learning experiences linked to Core Curriculum Content Standards.

1. District boards of education shall design structured learning experiences as rigorous activities, integrated into the curriculum, and linked to the Core Curriculum Content Standards.

2. Interested students may voluntarily select structured learning experiences that are:

1. Co-curricular or extra-curricular activities; or
2. External experiences such as volunteer activities, community service, paid or unpaid employment opportunities, or participation in an apprenticeship program.
3. District boards of education shall ensure that students participating in school-sponsored, paid external structured learning experiences:
 - i. Are supervised by school personnel in accordance with the requirements for cooperative education (N.J.A.C. 6:43);
 - ii. Are conducted at sites registered with the Department of Education via the Worksite Registration System; and
 - iii. Conform to federal and state law.

4. The Commissioner shall establish a mechanism to recognize the contributions of students who engage in a structured learning experience that involves volunteer and/or community service activities.

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(609)292-4469

Refocus Guidance on Career Clusters

Expert and caring career guidance is the heart of an effective career cluster system.

The annual CAPS day at Wren High School is the time when a year of intense career guidance comes together for the school's 1,450 students. So what does CAPS mean? The administrators have been doing CAPS so long they joke that they aren't sure what it originally stood for, but they think it stands for Career Action Planning Sessions.

Regardless of its origin, CAPS is the day the entire school, which is in the Piedmont near Greenville, meets on a Saturday in the school cafeteria.

School advisors sit down with each student and his or her parents or guardian. Together, they review the student's plans for graduation, including his or her choice of one of four career clusters: Health and Human Services; Business and Information Services; Arts and Humanities; and Engineering and Technologies.

The group talks about what courses the student has already taken, and they sign him or her up for the classes he or she will take the next year. Parents are impressed that they've worked with their sons or daughters and set up a plan with them that meets their individual needs. Getting the parents' input really makes it a collaborative effort.

CAPS is just a part of the comprehensive career guidance program at Wren High School, though. Each and every faculty member—including the principal and the librarians—has an assigned group of about twenty students as advisees. The adult advisors and their teenage charges maintain this relationship from beginning to end of each student's time at the school. By the senior year, the advisors get to know the students pretty

well. Such comprehensive career guidance is the hub of an effective career cluster system. Students can take thousands of possible routes through school and into careers; the challenge is to help individual students find their right roads to success and match them with the resources they need to get there.

Create IGPs for All High School Students

Effective career guidance begins in kindergarten, but in the upper grades it relies heavily on Individual Graduation Plans or IGPs. In sound guidance systems, students don't come to the task of creating an IGP cold. They have gotten plenty of information and experience through extensive career awareness and exploration activities in their elementary and middle school years.

An IGP is a document or portfolio in which a student, in consultation with his or her advisors and parents, guardians, or legal designee, selects a career goal and plans a program of study through high school and on to a two-year college, four-year college, apprenticeship, the military, employment, or another postsecondary option. In an IGP, a student records such information as

- personal, school, and career interests;
- awards; and
- choice of career cluster;
- intended class schedules;
- standardized test scores;
- post-high school goals;
- personal data;
- awards; and
- results of career assessment interpretation and career counseling.

IGPs also usually include the student's choice of a career major within his or her cluster. (See "Five Key Career Cluster Goals" on page 2). A thorough IGP can be the basis for a college application or employment resume.

Effective IGPs are updated at least once a year as a young person's interests and experiences change. In fact, flexibility is an essential part of any effective career cluster counseling system. Rather than locking students into one path, the role of counselors, faculty advisors, and parents/legal designees is to help students explore options and change directions if needed.

Empower Counselors

Naturally, moving to a career cluster system requires counselors to change how they serve students and how they think about their jobs.

With career development taking center stage in students' studies, counselors should see themselves as knowledgeable guides who help students learn the lifelong skill of career decision-making. They need to extend their horizons to look beyond educational goals, such as getting students into college. Instead, they should focus on the ultimate objective of schooling—preparing all young people to lead personally and professionally successful lives.

To help achieve this, schools need to empower counselors through extensive professional development opportunities. Schools must have professional staff trained not only to provide savvy career advice, but to help students overcome barriers to success such as drug abuse, family problems, economic evolution, or low self-esteem.

Take a Holistic Approach

Good career guidance, however, is a responsibility for the whole school, not just counselors. Adopting a cluster system requires schools to rethink counselors' workloads and responsibilities and to weave career development throughout the entire curriculum. Career guidance at Wren High School is really a collaborative effort. The school's system has evolved as the cluster system has grown and student needs have changed.

The staff of faculty advisors tailors guidance to their advisees' grade levels. In ninth grade, for example, advisors lead students in discussions of issues such as resolving conflict and following rules at school and work. Seniors, on the other hand, receive advice on topics such as finding funds for college, applying to postsecondary programs, and preparing resumes.

At Wren High School, changing how guidance is done has brought many benefits. Most importantly, students there feel a much greater sense of empowerment when they work with advisors and parents to plan their education and career paths. The new system has also had unexpected bonuses, such as increased parental involvement.

Guidance To-Dos

Goal: Refocus on Clusters

- Design a standards-based, comprehensive school guidance plan that involves all faculty members.
- Offer standards-based, age-appropriate career guidance in all grades, from kindergarten to high school graduation.
- Create Individual Graduation Plans (IGP) with students and parents.
- Guide students in periodic career assessment and updates to IGPs.
- Facilitate work-based and community-learning opportunities for students.
- Offer recognition for students who participate in collaborative career guidance activities.
- Offer recognition for students who graduate with career cluster majors.

Career Clusters in Action:

Wren High School, Piedmont
www.anderson1.k12.sc.us/schools/wrhs



Follow the South Carolina Career Guidance Model

Career guidance in South Carolina is based on three grade-specific themes: **career awareness in elementary school, career exploration in middle school, and career preparation in high school.** Each level of career development should include a range of career assessments, counseling, and learning activities, such as research projects, work-based learning experiences, standards-based career guidance, and career information sessions.

The South Carolina Career Guidance Model sets out in specific detail what K–12 schools should do to ensure that every student gets the guidance information he or she needs to make informed education and career decisions. The Internet-based document, which is available at www.careerguidancemodel.org and can be viewed on page 3, tells educators what standards-based structure and career programming are required and recommended for students in grades K–5, 6–8, and 9–12.

Developed by the South Carolina Career Guidance Advisory Committee, which includes more than 75 guidance counselors, the model presents information about resources, standards-based effective exercises, programs, publications, software, and other tools that schools can use to carry out and complete guidance activities.

The Career Guidance Model can provide a concrete foundation upon which to build an effective career cluster guidance system because it is aligned with the South Carolina Academic Standards for English/language arts, mathematics, science, social studies, and health.

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9.

Teaching and Learning Strategies

Illinois Manufacturing Standards

http://www.isbe.state.il.us/career/pdf/IT_C2-1.pdf

Technology Students Association Animatronics Competition

<http://tsaweb.org/sites/default/files/HS-Animatronics-tri-fold-lite.pdf>

National Research Center Career and Technical Education Program of Study Joint Technical Report

http://136.165.122.102/UserFiles/File/Tech_Reports/

[POS Joint Technical Report Jan 2010.pdf](#)

Lesson C2-1

Identify Manufacturing Tools, Equipment, and Technologies

Unit C. Basic Technical Skills

Problem Area 2. Identify Tools and Equipment

Lesson 1. Identify Manufacturing Tools, Equipment, and Technologies

Illinois State Goal and Learning Standard. This lesson is correlated with the following State Goal and Learning Standard:

State Goal 1: Read with understanding and fluency.

Learning Standard C: Comprehend a broad range of reading materials.

Performance Descriptor I/4: Identify and analyze the meanings of specialized vocabulary/terminology.

State Goal 3: Write to communicate for a variety of purposes.

Learning Standard A: Students who meet the standard can use correct grammar, spelling, punctuation, capitalization, and structure.

Performance Descriptor E/6: Demonstrate appropriate use of various parts of speech.

State Goal 5: Use the language arts to acquire, assess, and communicate information.

Learning Standard C: Students who meet the standard can apply acquired information, concepts, and ideas to communicate in a variety of formats.

Performance Descriptor G/4: Design and present a project (e.g., written report, graphics, visuals, multi-media presentation).

Standards for Technological Literacy. Standard 19: Students will develop an understanding of and be able to select and use manufacturing technologies. Performance elements F, L: Manufacturing systems use mechanical systems that change the form of materials through the processes of separating, forming, combining, and conditioning them. Servicing keeps products in good operating condition.

Workplace Skills: D/1: Communicating on the Job; communicate orally with others. J/8: Demonstrating Work Ethics and Behavior; demonstrate a willingness to learn.





ANIMATRONICS

OVERVIEW

Animatronics refers to a robotic device that emulates a human or an animal, or brings an inanimate object to “life.” Disney and Six Flags theme parks use animatronics in some of their attractions. Participants will produce an animatronics device complete with an appropriate display. The animatronics device must use control technology in its performance. The device must not suggest anything that is inappropriate by language, sound or movements. Evaluation is based on performance, device artisanship, and documentation of design efforts.

PURPOSE

Work as part of a team to demonstrate knowledge of mechanical and control systems by designing, fabricating, and controlling an animatronics device that will communicate, entertain, inform, demonstrate and/or illustrate a topic, idea, subject or concept. Sound, lights and surrounding environment are to accompany the device.

ELIGIBILITY

- A. One (1) team entry per chapter is permitted.
- B. There is a limit of three (3) representatives per team for the semifinalist presentation/interview.

TIME LIMITS

- A. Entries must be started and completed during the current school year.
- B. Participants are given five (5) minutes to set up their presentation equipment prior to their presentation.
- C. The presentation must last no longer than five (5) minutes.
- D. The presentation time begins when students give background information about the project from their notebook and must conclude on or before the five (5) minute time limit. Point deductions will be assessed for exceeding the time limit. The

judges' interview is not considered part of the presentation time.

ATTIRE


Professional dress as described in Competitive Events Attire is the minimum requirement.

PROCEDURE

- A. Participants check in their entries at the time and place stated in the conference program.
- B. Each team will submit a notebook and model at the designated check-in time specified in the conference program.
- C. During check-in, each team selects a demonstration time from the available times posted. When selecting a demonstration time, teams should avoid conflicts with other events for which team members are registered.
- D. Participants report for the presentation/interview at the selected demonstration time with the project, display and notebook. Only participants are allowed to set up equipment and present the project.

REGULATIONS

- A. The display may not exceed 48" wide, 48" high and 30" deep.
- B. The animatronics project model must have three (3) or more separate movements. A skin or covering is required. The covering must be removable in order to show the judges the skeleton and mechanics of the project.
- C. Sound, lights and sensors must be incorporated in the project model.
- D. All entries must be the original work of the team. Where applicable, all ideas and sound must be cited. Failure to follow this procedure results in disqualification.
- E. A standard three (3)-ring binder, with a clear front sleeve for a cover page, is required. The cover page must include the event title, the conference city and state, and the year. The inside of the binder must include the following single-sided, 8 1/2" x 11" pages:
 1. Title page with the event title, the conference city and state, the year and the team/chapter ID number (identification numbers are issued on site and therefore may be handwritten); one (1) page

 Read the General Rules and Regulations in the front of this guide for information that applies to all of TSA's competitive events.

2. Table of contents
 3. Purpose of the animatronics device; one (1) page
 4. Design and test log, including date, test duration, problems, redesigns and other comments; maximum five (5) pages
 5. List of resources that includes materials, parts, software, hardware and sources of information used in the development of the project; one (1) page
 6. A print out of the computer program controlling the project; pages as needed
 7. Plan of Work Log that indicates preparation for the event, as noted by date, task, time involved, team member responsible, and comments (See Plan of Work Log); one (1) page
 8. Permission letters for copyrighted material, if incorporated; pages as needed
- F. The animatronics device may not contain a wet cell battery.
- G. The animatronics device may not use an AC power source.
- H. Should the device suggest anything that is inappropriate by language, sound or movement, immediate disqualification will result.
- I. A team that fails to appear for its demonstration forfeits judging.

EVALUATION

Teams are evaluated on their written work, model function, programming structure and efficiency. Refer to the official rating form for detailed information.

NOTES

You can learn more about animatronics by visiting the following web sites:

www.animatronica.co.uk/default.asp

www.nimbacreations.com

www.animalmakers.com

www.garnerholt.com

www.dreamation.com/Animatronics.htm

National Research Center Career and Technical Education Program of Study Joint Technical Report

The *Mature POS* study did not find much alignment between CTE and academic courses, and curriculum integration within either type of course was even rarer in most of the sites visited. Two of the technical high schools had made efforts to offer complementary academics with their CTE courses. In the rest of the sites, although many of the POS listed academic courses on paper, it was not clear that rigorous or even relevant academics were actually being taught to students in the POS. Rather, academic courses were a parallel but separate sequence. It is very difficult to align academic course content (e.g., English) with more than one industry or career area (e.g., culinary, welding, health) at a time, and many academic teachers had students from multiple POS in their classes. It was easier for the CTE teachers to include academic content in their courses; and although we saw some of this, it was not happening in a systematic way (i.e., with curriculum mapping).

A contrast to the prevailing situation was seen in a few classes that use project-based learning. At a *Rigorous Tests* school, for example, a pre-engineering teacher described a project he assigns to his freshman students. He chooses a 10-year time span (e.g., 1750-1760). Students find an inventor or invention from that era, research the invention, and write a two-page report about it. They then build a model of the invention. The model is not meant to function but must be built to scale. Students then present it to the class. One computer science teacher, building on his extensive business background, runs his classroom much like a software development company. To complete a whole-class, multi-week video game project, students function as a team, occupying a variety of roles like programmer/coder, debugger, graphic designer, audio technician, and librarian/archivist. Students in this program also serve as each other's teachers, producing screen capture videos of their programming techniques that are featured on the teacher's website and played in class. These observations were made in a school where the faculty had received intensive professional development in project-based learning before the school was opened, with follow-up sessions offered the next summer to the new cohort of teachers. The school is supported in this activity by the superintendent's office, which helped fund the purchase of the professional development materials.

These examples illustrate that it is easier for CTE teachers to include academics in their classes than it is for academic teachers to make their content relevant to students who are from several different occupational areas. An implication of this observation is that the emphasis in integration should be on ensuring that CTE teachers have the skills to identify opportunities for academic enhancement inherent in their curricula and the knowledge and confidence to teach the academic content they identify.

10.

Technical Skills Assessment

Maryland Construction Technical Assessment

http://www.marylandpublicschools.org/MSDE/divisions/careertech/career_technology/programs/

Maryland Program Advisory Committee Technical Standards Review

<http://www.marylandpublicschools.org/NR/rdonlyres/F8A34712-B21E-4DC2-A186-9144565375F2/2881/11212003PoliciesProceduresforDevelopingCTEPrograms.doc>

Florida Industry Certification Approval Process

<http://www.fldoe.org/workforce/perkins/pdf/1011SecondInvent.pdf>

Florida Technical Skill Inventory Selection

<http://www.fldoe.org/workforce/perkins/pdf/AppendixF.pdf>

STEP 2B: COURSE DESCRIPTIONS AND END OF COURSE ASSESSMENTS – Insert each CTE completer course title. Describe each course based on what students are expected to know and be able to demonstrate as a result of their participation. Check the assessment instrument(s) that will be used to document student attainment of the knowledge and skills included in each course and specify additional information as appropriate.

Course Title: Foundations of Building and Construction Technology (Core) – all pathway options (one credit)

Course Description:

The Foundations of Building and Construction course is the Core Curriculum of the Construction and Development Cluster. The NCCER Core Curriculum is taught within this course and is bases for all construction skills. NCCER strongly recommends that trainees successfully complete the Core Curriculum before advancing to Level One of their chosen field. The course of study descriptions correlates to the modules of the NCCER national standards and related work-based learning opportunities. The following modules are designed to be completed in approximately 72.5 hours of instruction and allows for an estimated 27.5 hours of related “hand-on” applications/work-based learning opportunities to reinforce and extend the learning.

The course of study includes demonstration of student mastery of the following topics:

- Basic Safety. Includes personal protective equipment, performance safety, and what to do if an accident occurs.
- Introduction to Construction Math. From basic addition to multiplying fractions, this module prepares students to do the calculations they’ll be performing on the job site.
- Introduction to Hand Tools. Covers basic tools and equipment used in the field. Also covers maintenance instructions and safety tips.
- Introduction to Power Tools. Provides instructions for tools powered by electricity, batteries, and pressurized air, such as drills, saws, grinders and sanders, and other common construction equipment. Also covers maintenance instructions and safety tips.
- Introduction to Blueprints. Introduces students to different types of plans and how they represent a finished building. Shows the parts of blueprint in detail, including symbols, title block, and gridlines.
- Basic Rigging. Covers the slings, hardware, hoists, and hitches used in rigging operations. Also highlights critical safety issues and accepted rigging techniques and practices.
- Hands-On Experiences. Provides hands-on experiences in each of the trades areas, Carpentry, Masonry, Construction Electricity and/or HVAC so that students can gain a working knowledge of the construction industry.

Given the emphasis on providing a broad introduction to the Career Cluster in this course, a module from the Level One curriculum will be provided (listed below). Additional modules and/or academic remediation (including communication and employability skills) may be provided given an estimated additional 35 hours of instructional time in the first credit/course.

- Orientation to the Trade/Introduction to HVAC, industrial Maintenance and other Construction Pathways. Covers the basic principles of heating, ventilation, and air conditioning; and industrial maintenance as well as career opportunities in construction, training, and apprenticeship programs.
- Schools may explore the use of SkillsUSA Professional Development Program (PDP) resources to enhance career development and workplace readiness knowledge and skills.

End of Course Assessment

Check the assessment instruments that will be used to document student attainment of the course knowledge and skills.

- Teacher-designed end-of-course assessment
- School system-designed end-of-course assessment
- Vendor-developed exam: (specify) _____
- Licensing exam: (specify) _____
- Certification or credentialing exam: (specify) (see description below)
- Nationally recognized examination: (specify) _____

Student’s must pass the NCCT for the **Construction Core** to be entered into NCCER’s National Registry. The National Registry provides a nationally recognized certification in the industry. Upon completion of the Core, students move to the Craft Level curriculum and assessments for their chosen option/trade.

Maryland Program Advisory Committee Technical Standards Review

Next, the PAC reviews the technical skill standards most closely aligned with the program to ensure that they are relevant and current. The standards serve as the foundation for the development of curriculum, instruction and assessment strategies. The PAC identifies the technical and workplace skills (Skills for Success) as well as the academic standards that students need to master to succeed in the program. The standards include the:

1. core knowledge and skills that all students in the cluster will master;
2. academic, technical and workplace skills embedded in the program;
3. knowledge and skills learned best through participation in industry-mentored projects and/or supervised work-based learning experiences; and
4. knowledge and skills that require more extensive experience or industry training and certification.

Preliminary 2010-2011 Perkins IV Technical Skill Attainment Inventory (By Secondary Program)

Division of Career and Adult Education

Program	Code	Certification Title	Certifying Agency
8718100	3-D ANIMATION TECHNOLOGY		
	ADOBE011	Adobe Certified Associate (Flash)	Adobe Systems
	ADOBE004	Adobe Certified Expert (InDesign)	Adobe Systems
8203400	ADESK026	Autodesk Certified Associate- 3dsMax Design	AutoDesk
	ACCOUNTING OPERATIONS		
8212500	BRAIN008	Bookkeeping Fundamentals	Brainbench
	AIOPB001	Certified Bookkeeper	American Institute of Professional Bookkeepers
	NOCTI016	NOCTI Accounting Advanced	National Occupational Competency Testing Institute (NOCTI)
	NOCTI015	NOCTI Accounting Basic	National Occupational Competency Testing Institute (NOCTI)
	ADMINISTRATIVE ASSISTANT		
8600080	ADOBE012	Adobe Certified Associate (Photoshop)	Adobe Systems
	MICRO061	Microsoft MCAS Bundle Certification	Microsoft Corporation
	MICRO069	Microsoft MCAS Bundle Certification (3 of 5)	Microsoft Corporation
	MICRO017	Microsoft Office Master	Microsoft Corporation
	NOCTI001	NOCTI Administrative Assisting	National Occupational Competency Testing Institute (NOCTI)
AEROSPACE TECHNOLOGIES			
8117000	ADESK021	Autodesk Certified Professional - AutoCAD	AutoDesk
	ADESK024	Autodesk Certified Professional - Inventor	AutoDesk
	FEDAA013	FAA Ground School	Federal Aviation Administration
	FEDAA011	FAA Private Pilot	Federal Aviation Administration
AGRICULTURAL COMMUNICATIONS			
8103400	ADOBE012	Adobe Certified Associate (Photoshop)	Adobe Systems
AGRICULTURAL MACHINERY MECHANICS			
8106800	NOCTI012	NOCTI Agricultural Mechanics	National Occupational Competency Testing Institute (NOCTI)
	AGRITECHNOLOGY		
	MICRO069	Microsoft MCAS Bundle Certification (3 of 5)	Microsoft Corporation
	NOCTI011	NOCTI Production Agriculture	National Occupational Competency Testing Institute (NOCTI)

Thursday, June 10, 2010

Preliminary 2010-2011 Perkins IV Technical Skill Attainment Inventory (By Secondary Program)
 (Some CAPE industry certifications have not been added to the Perkins Inventory at this time. The Final 2010-2011 Perkins Inventory will contain all CAPE industry certifications upon posting in Fall 2010.)

Department of Education Action –

In December, 2006, DOE's Division of Workforce Education (Division) surveyed local school districts in the state to have them identify industry certifications the districts were using for their career and technical education (CTE) students. The Division conducted a similar survey of community colleges and technical centers in August, 2007. Division staff consolidated the results of those surveys in developing two draft inventories, one for use with secondary students and one for use with postsecondary students, of certifications related to CTE programs being conducted by school districts, community colleges and technical centers.

Program Specialists in the Standards, Benchmarks and Frameworks (SBF) Section reviewed the draft inventories to ensure that listed certifications were appropriate for the various CTE programs. Their recommendations to add, delete or revise the inventories were incorporated into the drafts, and on September 20, 2007 the Division sent out the draft inventories to CTE directors in school districts, community colleges and technical centers for their review. Directors' responses received by October 1 have been reviewed by SBF staff and, where appropriate, the inventory has been accordingly revised.

APPROVAL PROCEDURES

Original Inventories –

The Division of Workforce Education used the following procedures to approve the original lists of certifications to be included in the industry certification inventory.

1. Division staff consolidated the lists of industry certifications submitted by the school districts, technical centers and colleges, arranged them alphabetically by program name and eliminated duplications.
2. Program Specialists in the Standards, Benchmarks and Frameworks (SBF) Section reviewed listed certifications to determine whether the certifications were appropriate for evaluating technical skill attainment for the related programs. A certification was considered appropriate for the program if:
 - a. In the professional opinion of the Program Specialist, the assessment instrument on which the certification is based appropriately evaluates technical skill attainment related to the program curriculum;
 - b. The certification is occupationally specific;
 - c. The certification is a state or federally regulated professional licensure; or
 - d. The certification instrument is congruent with a nationally or internationally recognized set of professional competencies or credentialing standards for professional practice.
2. Certifications endorsed for approval by SBF staff were submitted to the Bureau of Accountability and Research (BAR) for review.

3. Certifications recommended by BAR will be submitted to the Chancellor of the Division of Workforce Education for final approval. When a certification is approved by the Chancellor, the original approved Industry Certification Validation Worksheet will be returned to BAR to be filed and a copy sent to SBF.
4. BAR will maintain a file of approved certifications and ensure that the approved certifications are entered into the certification database and placed on the Workforce Education website and will send notices to:
 - The Division of Community Colleges;
 - Deans of Community College Career and Technical Education Programs;
 - Directors of School District Career and Technical Education Programs;
 - Directors of Technical Education Centers;
 - WEDDAC; and
 - MISATFOR.

Any proposed certification not endorsed by SBF or recommended by BAR or approved by the Chancellor will be excluded from the original inventory.