Michigan Career & Technical Education Technical Toolkit

Table of Contents

Welcome and Overview	1
Technical Toolbox Objectives	1
CTE Certification Support Materials	2
Career and Technical Education Teacher Certification FAQ	2
Professional Development of Provisionally Certified CTE Teachers	2
Professional Development of Annually Authorized CTE Teachers	3
Approved Educational Institutions for CTE Teachers	4
Professional Development Growth Plan for Annual and Provisional Teachers	5
Networking Guide	6
Mentorship	7
Core Components of a CTE Program.	8
Getting To Know Your CTE Program	9
Classroom and Laboratory Facility (RIGOR)	9
Career and Technical Student Organizations (RELATIONSHIPS)	11
Experiential Learning (RELEVANCE)	15
Advisory Committees	18
CTE Teacher Calendar of Activities	20
APPENDIX A - Resources for CTE Educators	22
National CTE Web Resources	22
Michigan CTE Web Resources	23
Grants	24
Youth Leadership	24
Experiential Learning	24
Advisory Committees	25

Michigan Career & Technical Education Technical Toolkit

Welcome and Overview

Welcome to the exciting world of experiential teaching and learning through the lens of Career and Technical Education (CTE). If you are reading this document you are either a newly certified teacher with a provisional teaching certificate and Interim Occupational Certificate (IOC) or are coming to education from business and industry with an Annual Authorization. In either instance you are an early-career educator who wants to make a difference in the lives of young people. For the purposes of this document we are defining an early-career CTE educator as someone who has been teaching for five or fewer years in field.

According the U.S. government, Career and Technical Education is defined through the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV). As part of CTE, each program is comprised of 10 components. These components are critically important to the framework of a CTE program. These components can be found as the following link: http://cte.ed.gov/file/POS_Framework_Unpacking_1-20-10.pdf.

Technical Toolbox Objectives

The Technical Toolbox is designed as a source of information and guidance for new teachers in the Career and Technical Education field. This is not designed to be a large-scale all encompassing document, but one that is brief and provides the early-career educator with a quick reference guide to important information about Career and Technical Education. To that end, this document is divided into the following overarching sections:

- CTE Support materials for early-career teachers; and
- Career and Technical Education resources.

Support materials include information related to the professional development needs of early-career CTE instructors. This may include progression toward an advanced degree if you are currently provisionally certified. If you are annually authorized this may include development of a plan to acquire initial provisional certificate in your CTE teaching area.

Career and Technical Education resources include materials to help better understand the components of a typical CTE program. These resources include: 1) youth leadership; 2) experiential education; 3) advisory committees; 4) development of a Calendar of Activities (example provided); and 5) additional resources that may help in the management of a successful CTE program.

CTE Certification Support Materials

Professional development is a critical component of any CTE educator position. Early career provisionally certified and annually authorized educators must adhere to the Michigan Department of Educations requirements for certification and recertification. The Michigan Department of Education Office of Preparation Services "Facts on Teacher Education" is a document that provides information about Michigan teaching law, types of certification, Michigan certification requirements, teaching licensure renewal, and progression toward provisional and professional teaching certification. This document can be found at: http://www.michigan.gov/documents/mde/Facts_About_Teacher_Certification_In_Michigan_23_0612_7.pdf (Michigan Department of Education Office of Professional Preparation Services, 2014).

Career and Technical Education Teacher Certification FAQ

https://www.michigan.gov/documents/mde/CTE Teacher Certification FAQ 436394 7.pdf

Professional Development of Provisionally Certified Teachers

This section is for those individuals who are provisionally certified and hold an IOC in their field of study.

Now you have a teaching certificate, what's next?

Even though you have completed your degree requirements and student-teaching at your college or university, your professional development does not end here. Being an educator includes being a lifelong-learner. As a CTE teacher, you are strongly encouraged to continue on with your education through an advanced degree program related to your field of study or Career and Technical Education. An advanced degree will provide you with valuable tools that will help with technical content knowledge, teaching skills, and programmatic management.

What type of degree and area of study should I consider?

There are a wide range of advanced degrees that could be considered depending on your program, area of study, and future interests. Many Michigan institutions offer advanced degrees (e.g., M.S., M.A., Ed.S., Ph.D., Ed.D.). Additionally, many institutions provide education specifically related to CTE including: Central Michigan University, Eastern Michigan University, Ferris State University, Madonna University, Michigan State University, Northern Michigan University, Wayne State University, and Western Michigan University.

When choosing a program of study some things to consider include:

- Location of institution
- Desired program
- Online opportunities
- Relevance of program to current teaching requirements
- Cost of program
- Personalization of program toward career goals

One very important aspect of a graduate degree program is that it is specific to your desired learning goals. If the goals of a program align to your personal goals, then you will be much happier with the end result and the path it takes to degree completion.

Professional Development of Annually Authorized Teachers

This section is for those individuals who were in business and industry and are now teaching under an annual authorization based on related work experience.

You have an Annual Authorization, what are the next steps?

To continue teaching for the short- and long-term it is important that you take the necessary steps to become fully certified. The first step is to consult with the appropriate individual at the Michigan Department of Education in the specific CTE program to develop a plan for the next step in certification. The second step is to find an institution that prepares CTE teachers in your teaching area. For example, MSU only certifies teachers in the area of Agriscience and Natural Resources, therefore you may be limited to where you can take coursework. Many institutions can be found throughout the State of Michigan that certify teachers. There are a few institutions that certify teachers in one specific area.

Below are a list of institutions that prepare CTE teachers and the contact person that would be most helpful in moving you from an Annual Authorization to Provisional Certification/IOC.

Approved Educational Institutions for CTE teachers

Below is a list of Michigan approved post-secondary CTE institutions. Note that certain post-secondary institutions prepare CTE teachers in only one or several areas.

Institution	Location	Contact
Central Michigan University	Mt. Pleasant, MI 48859	Mrs. Shannon Ebner-Buning ebner1sl@cmich.edu 989-774-3309
Eastern Michigan University	Ypsilanti, Michigan 48197	Dr. Phillip L. Cardon cardonp@yahoo.com 734-487-1161
Ferris State University	Big Rapids, MI 49307	College of Education & Human Services Technical Education 231-591-5361
Madonna University	Livonia, MI 48150	Ms. Nora Baker nbaker@madonna.edu 734-432-5647
Michigan State University	East Lansing, MI 48824	Dr. Matt R. Raven mraven@msu.edu 517-432-0293
Northern Michigan University	Marquette, MI 49855	Mr. Michael Rudisill mrudisil@nmu.edu 906-227-1763
Wayne State University	Detroit, MI 48202	Dr. Geralyn E. Stephens ad9472@wayne.edu 313-577-0991
Western Michigan University	Kalamazoo, MI 49008	Dr. Linda Dannison linda.dannison@wmich.edu 269-387-3713

Professional Development Growth Plan for Annual and Provisional CTE Teachers

This 5-year plan is for the following degree: Graduate Degree _____ Provisional Certification _____ Fall 20____ Spring 20____ Summer 20___ ____ Credits ____ Credits Credits Spring 20___ Summer 20____ Fall 20____ ____ Credits Credits Credits Fall 20 Spring 20 Summer 20 Credits Credits Credits Fall 20____ Spring 20____ Summer 20____ Credits Credits Credits Fall 20____ Spring 20____ Summer 20____ ____ Credits Credits Credits

TOTAL CREDITS TO COMPLETION OF PROGRAM

Networking Guide

Networking is an important part of the CTE profession. Networking is defined as information gathering utilizing colleagues, CTE career professionals, and business and industry professionals. The more people in your network, the more successful you will likely be in developing a CTE program that is relevant to your students and community.

Name	Position, Title, and Affiliation	Email Address	Mailing Address	Phone	Record of Contact
Name	and Allination	Address	Address	Phone	(Date and Comment)

Mentorship

As a provisionally certified or annually authorized CTE teacher, it is critically important that you have a support network to be successful over the long-term. As part of the requirements of a public school district, you should have a locally arranged mentor within your school district. Your mentor should be assigned to you by the administration at your school district. If you teach in a program that has multiple teachers, then this individual would probably be within your CTE field. However, if are the only CTE educator at your school or career center, then you may be assigned another CTE program educator or a teacher who has many years of experience. It is critically important that if you are the only CTE teacher within your field that you seek out a mentor outside your district that teaches in the same area. Many CTE programs will support your needs through the professional development organization related to your teaching field.

According to the University of Wisconsin-Madison – Teaching and Learning Excellence, mentorship is important to the overall success of an educator. This website defines a quality mentor, establishes criteria for determining a mentor-mentee relationship, and provides a framework for a successful mentor-mentee connection (https://tle.wisc.edu/teaching-academy/peer/mentorsrole).

Core Components of a CTE program

There are three core components of all CTE programs. Those three components include classroom and laboratory instruction, youth leadership, and experiential or work-based learning (Figure 1). An equal distribution of all three circles creates the ideal CTE program. Additionally, the rigor, relevance, and relationships (the 3R's) assist in defining the specific components of the CTE program (Figure 2). *Rigor* includes providing students with academically challenging coursework in both the classroom and laboratory. *Relevance* includes the application classroom and laboratory experiences to the workforce. *Relationships* include utilizing leadership principles (communication, managerial leadership skills, personal development, and career success) in the context of the classroom, laboratory, and workforce.



Figure 1. The three components needed for a Career and Technical Education (CTE) program.

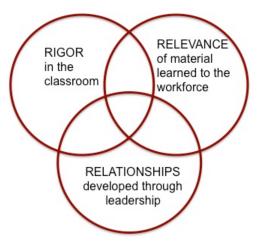


Figure 2. The 3R's of Career and Technical Education as related to the respective CTE components.

Getting to know your CTE program

A complete CTE program includes the following components: 1) classroom and laboratory learning; 2) a Career and Technical Student Organization (CTSO); and 3) and work-based or experiential learning.

Classroom and Laboratory Facility (RIGOR)

Classroom and laboratory learning can take place in a variety of forms within a CTE program. This is the basis for students building knowledge to be applied in practice. It is important that you create a program with an appropriate sequence of courses based on advisory committee input, community need, and personal and educational background. The CTEIS Instructional Design Form will assist in developing appropriate courses and where each segment will be taught in the sequence of each of the courses.

http://www.ptdtechnology.com/Portals/4/PTD/Files/CTEIS/UserDocs/4483D/4483_InstructionalDesignForm.pdf

As you begin your career as a CTE educator you may consider the following questions about your classroom and laboratory learning facility in an effort to better understand your program:

Classroom and Laboratory Questions

Questions to ask	Have
	you
	asked?
Where do I park and do I need a parking permit?	
Do I have the appropriate keys and does the school have a security code?	
Is my room clean and materials in key locations appropriate for student learning?	
Have I developed the appropriate course curriculum?	
Have I prepared for student instruction?	
Have I prepared to facilitate instruction?	
Do I have appropriate management techniques in place for learning/discipline?	
Do I have appropriate assessments in place based on course and program objectives?	
Do I have a recruitment program in place to promote the program to future students?	
Do I have appropriate materials in place to provide support and guidance to students?	
How do I access the school website to update information about myself and my	
program.	
Have I created an Advisory Committee for my CTE program and are we scheduled to	
meet at least two times per year?	
Have I driven around the school district to determine where my students are from (in	
a general sense)?	

Have I visited businesses and industry related to my CTE area that can help make my	
program successful?	
What is my yearly budget?	
Do I have CTE added cost funds, what are those, and how do I access those funds?	
How do I get the basic supplies for my classroom?	
Who orders my supplies? How do I order supplies?	
Where do I sign up for the computer lab(s)?	
What is the dress code for teachers? For students?	
What is the social media policy?	
Does the school pay my professional organization membership dues and attendance	
at annual meetings?	
What is the protocol for taking a field trip?	
What is the school policy on animals?	
What grading system does the school use?	

Career and Technical Student Organization (RELATIONSHIPS)

A Career and Technical Student Organization (CTSO) is the medium for students to learn and grow their leadership and personal growth skills while a student in your CTE program. Michigan currently has nine CTSO organizations that are identified and recognized within CTE programs. Below is a list of those organizations and a link to learn more about creating and maintaining an appropriate CTSO.

Organization		Resource Link
Business Professionals of America	BPA	www.bpa.org
DECA	DECA	www.deca.org
Future Business Leaders of America-Phi Beta Lambda	FBLA-PBL	www.fbla-pbl.org
Family, Career and Community Leaders of America	FCCLA	www.fcclainc.org
Future Educators Association	FEA	www.futureeducators.org
National FFA Organization	FFA	www.ffa.org
Future Health Professionals	HOSA	www.hosa.org
Skills USA	Skills USA	www.skillsusa.org
Technology Student Association	TSA	www.tsaweb.org

CTE Youth Leadership

The purpose a CTSO is to help students develop valuable skill sets, which will increase their capabilities in the workforce. For students, a CTSO should increase communications, interpersonal, and public speaking skills to provide the needed tools to become effective future leaders. Students should learn and enhance personal development skills; learn how to select a job, get a job to obtain career success; and how to gain leadership positions both in their community and career. Students will accomplish these principles by learning about leadership and communication by speaking to groups, leading individuals and groups, development of managerial leadership skills, personal development, and career success. Much of the CTSO work completed by students should be incorporated within classroom lessons and concepts providing students with knowledge and hands-on experience related to course curriculum.

Objectives of youth leadership include:

Understanding Leadership:

This objective allows students to fully develop their leadership abilities, which will enable them to become effective leaders. Students will gain experience working with a wide variety of people from fellow students, teachers and members within the community, giving them a well-rounded view of what it means to be a leader. Students will be able to understand their leadership impact once participating in and learning about the following:

- Leadership Types and Styles
- Personality Types and Their Relationship to Leadership and Human Behavior
- Learning Styles and Leadership
- Developing Leaders
- Leading Teams and Groups

Communications and Speaking to Groups:

Becoming an effective communicator is vital in today's workplace. Through various activities, competitions, and community engagement projects, students will acquire appropriate communication strategies and determine where those strategies are most beneficial in specific situations. By focusing on the following, students will be able to develop strong skills, which will assist them in developing their professional careers:

- Communication Skills
- Prepared Speaking
- Conducting Meetings

Managerial Leadership Skills

Working in a CTE program will give students insight into the type of managerial skills, which will be crucial for their extended careers. Focusing on the following topics will allow students the opportunity to develop these skills before entering the workforce:

- Problem Solving and Decision Making
- Goal Setting
- Time Management
- Positive Reinforcement and Motivation

Personal Development

Students will develop a sense of who they are and their ambitions in life while working alongside individuals with similar interests. The goal of this objective is for students to become self-assured and confident in their professional and social lives. The following skills will allow students to develop relationships with their fellow colleagues, managers, supervisors, and anyone the individual works with in their professional work environment. Personal development skills include:

- Self-concept
- Beliefs
- Attitude
- Ethical practices in the workplace

Career Success

The CTE program allows students to develop hands-on training and experience within a field which interests them both personally and professionally. This objective provides an opportunity to focus on job opportunities that are available to students and will help them appreciate the necessary steps to take in order to succeed within these fields. Career Success allows students to develop resources and skills, which will benefit them for the rest of their lives by:

- Selecting a career and finding a job
- Getting the job: resumes, applications and interviews
- Developing employability skills: keeping the job

A Career and Technical Student Organization (CTSO) is a student leadership organization that is associated with your respective CTE program. As part of your CTSO there are many components that can help to make a program successful. First, it is important for you as the instructor to realize that you are not only the **teacher** of the CTE program, but you are also the **advisor** of your respective CTSO. As the advisor, your job is to advise and not "do" for the students. It is there the CTSO and as such those students need to take on the leadership positions and authority for their CTSO. Below are some questions to better help you think about important aspects of a typical CTSO.

CTSO Checklist

Have you:	Yes 🗸
Helped your students to create a CTSO officer team	
Helped your students to create a CTSO constitution/bylaws	
Helped your students to develop a CTSO calendar of activities or program of	
activities for the upcoming year	
Helped your students develop a calendar that includes activities that build	
leadership capacity in ALL CTE program students	
Helped your students develop a calendar of activities that includes community	
development	
Helped students determine appropriate ways to showcase their learned leadership	
skills	
Discussed experiential learning with school administrators to help them better	
understand concepts of students becoming leaders and your need to work with	
students both in and out of the classroom to develop leadership and participate in	
activities that will assist them in their future careers.	
See APPENDIX A for additional resources regarding CTSOs	

Experiential Learning (RELEVANCE)

Experiential learning is defined as school-supervised work experiences focusing on the professional areas where a student wants to improve. The program allows for the application of concepts and principles learned in the classroom in order to enhance their overall performance. The activities are "hands-on," individualized, and generally completed outside of the classroom. Experiential learning enables students to have hands-on experience within a field and environment that interests them outside of the classroom. Each student is required to have an experiential learning/work-based program that consists of projects within one or more of the five major areas, *exploratory*, *entrepreneurship*, *placement*, *research/experimental*, *and analytical*. Students may combine the areas and/or supplement them with minor activities through improvement and supplementary projects. A comprehensive program will include both improvement and supplementary activities. These activities include:

- Being related to any subject matter taught within the CTE program
- Requiring an investment of time or money by the student
- Being a learning experience for the student
- Being able to be supervised
- Reflecting a student's occupational goals

The goal of experiential learning is to lead to occupational literacy or establishment of a professional career. Work-based learning related to supervised experiences should provide practical, real-world experience and development of a positive work ethic and realistic occupational expectations. A quality experiential learning/work-based experience will meet the following proficiencies as well as those listed under each category. In order to accomplish a foundation of knowledge in the areas which students are interested in professionally it is necessary to:

- Ensure that all students have a personalized learning plan, which maps out strategies for achieving their educational and professional goals;
- Educate students to the level of college and career standards to the point of proficiency within these areas;
- Focus on each student to ensure they are receiving adequate experience and ensure that each student is making measurable progress; and
- Stay updated on innovative teaching strategies in order to provide the most beneficial learning experiences to the students

Standards

Experiential learning programs must be held to a high standard, as this experience is critical to a student's performance within the workforce. The standards for CTE programs are based on:

- Being included as an integral and intracurricular part of the instructional program;
- Instruction by educators who have a solid technical foundation of expertise in their respective area and willing to provide students with the ability to improve their leadership, communication, cooperation, and application of technical skills;
- Guidelines which are implemented to assure equal opportunity for all individuals and participation to all eligible students striving to improve;
- Objectives which students are able to achieve; and
- Member abilities to participate in leadership and technical skills at all levels.

Standards for each Michigan CTE program can be found at Michigan CTE Navigator (http://ctenavigator.org/)

CTE Mission Statement

In order to meet the future demands of the economy, CTE programs will work to build collaborative connections among education, economic development, and workforce development to ensure the alignment of success and program delivery. The program strives to be innovative and quick to respond to employer needs through the use of academic and technical content. We project that students who enroll in these programs will be prepared as global citizens with an innovative and entrepreneurial spirit and who are boundless in their ideas and endeavors to stimulate positive economic change.

Source: http://www.careertech.org/career-technical-education/cte-vision.html

Experiential learning or the "doing" stage is the practice of applying what has been done in the classroom and laboratory to the context of work or work-based practice. Experiential or work-based learning should be supervised by both teacher and work supervisor. The model for experiential or work-based learning should include dialogue among all three participants (student, teacher, supervisor) while working collaboratively to develop student knowledge of the specific program. A checklist will help the teacher better understand goals of experiential learning.

Experiential Learning Checklist

Have you:	Yes 🗸
Worked with students to develop an experiential project that: 1) has SMART goals	
(See Appendix B), 1) has educational value, 2) can be conducted outside of the	
normal class time, and 3) is directly linked to classroom or laboratory instruction	
Helped your students develop appropriate work-based learning projects based on	
their interests in the CTE classroom (see specific areas above)	
Helped your students to develop projects that increase in scope and size over time	
Discussed experiential learning with school administrators to help them better	
understand concepts of work-based learning and your need to visit students at their	
worked-based learning sites	
Developed a calendar of times and dates in which you plan to visit students at their	
placements	
Developed a way to keep track of your visits (record book)	
See APPENDIX A for additional resources regarding Experiential Learning	

Advisory Committees

Advisory committees are a fundamental element to upholding the quality and development of CTE programs. The primary purpose of the advisory committee is to assist educators in establishing, operating, and evaluating programs that aid the needs of students, business and industry. This committee serves as a source of information for educators updating their educational lessons, resources and equipment, and serve as a strong connection to the community. The advisory committee is also a reliable source of competency testing for students. This committee should have a broad representation from the business, industrial, educational, and labor community in order to promote productive discussion.

Criteria for an Advisory Committee member

Due to the interest in maintaining high quality Career and Technical Education programs, careful consideration should be used when selecting the members of an advisory committee. These individuals will be a foundation for the success of the program and its growth. The following criteria can serve as a guide for identifying individuals who will serve as invaluable resources to the program:

<u>Experience</u>: Members must have had successful first-hand experience in the respective areas being served. These individuals have developed respect and merit throughout their field and between their associates.

<u>Willingness to Commit Time:</u> Members selected must be willing to make allotted time sacrifices for the betterment of these programs.

<u>Character</u>: Members, typically recommended to serve by their colleagues, exhibit a strong sense of responsibility and civic-mindedness.

Functions of an Advisory Committee

Although the individual boards of education are ultimately responsible for all decisions in regards to the programs, the advisory committee assists in the decision-making process by giving advice.

A well-functioning advisory committee will:

- Evaluate current programs to determine if they are providing realistic and current preparation and training for students
- Act as a change agent to increase the CTE program's relevance
- Help secure training stations and assist in the placement of program graduates
- Provide input and support for legislation and corresponding funding at the local, state and federal levels
- Act as a communications link to assist in the development of community understanding of and support for this education program

However, an advisory committee should avoid:

- Becoming a pressure group which supports one idea verses another
- Consisting of multiple alumni members or being an alumni organization
- Controlling the direction of the program and the educator
- Changing mandated recommendations

The advisory committee will consist of enough members to sufficiently run a successful meeting if one or two members are absent. They consist of a committee chairperson who will help the CTE educator set meetings and schedule and prepare agenda items. The vice chairperson will oversee these duties given the absence of the chairperson. All of the other members assist in working to evaluate the program and its progress. Minimum meeting dates should be established, as well as written objectives for these meetings, in addition to the overall goal of the advisory committee. The purpose of these committees is to not only assist with the program, but also to improve the education of individuals throughout the district, which will help to build a stronger relationship between the program and the community.

CTE Teacher Calendar of Activities

August

- Prepare your classroom for the upcoming year (Make sure it is clean and orderly)
- Purchase materials needed for the school year
- Determine your budget and how to access funds
- Determine CTE added-cost dollars for your program
- Develop a general calendar of important dates
- Talk with the administration about important dates you will be on field trips with students
- Develop lesson plans for the first month of school
- Talk with co-workers and develope collaborative relationships
- Sign up for any fall semester college courses needed to advance your teaching credentials

September

- Meet with or elect a new officer team for the respective CTSO
- Work with the CTSO to develop a constitution and calendar of activities for the upcoming year
- Visit and build relationships with community partners
- Visit students at their work-based placements
- Determine appropriate CTSO activities for the month
- Lesson plan for the next month

October

- Visit and build relationships with community partners
- Visit students at their work-based placements
- Determine appropriate CTSO activities for the month
- Parent-teacher conferences
- Lesson plan for the next month

November

- Visit and build relationships with community partners
- Visit students at their work-based placements
- Determine appropriate CTSO activities for the month
- Lesson plan for the next month

December

- Visit and build relationships with community partners
- Visit students at their work-based placements
- Determine appropriate CTSO activities for the month
- Lesson plan for the next month
- Determine needs of program and responsibilities over winter break
- Sign up for any spring semester college courses needed to advance your teaching credentials

January

- Visit and build relationships with community partners
- Visit students at their work-based placements
- Determine appropriate CTSO activities for the month
- Lesson plan for the next month

February

- Visit and build relationships with community partners
- Visit students at their work-based placements
- Determine appropriate CTSO activities for the month
- Lesson plan for the next month

March

- Visit and build relationships with community partners
- Visit students at their work-based placements
- Determine appropriate CTSO activities for the month
- Lesson plan for the next month

April

- Visit and build relationships with community partners
- Visit students at their work-based placements
- Determine appropriate CTSO activities for the month
- Lesson plan for the next month
- Sign up for any summer semester college courses needed to advance your teaching credentials

May

- Visit and build relationships with community partners
- Visit students at their work-based placements
- Determine appropriate CTSO activities for the month
- Lesson plan for the next month
- Work with students to plan and have a banquet for your CTSO to celebrate accomplishments over the past year
- Develop a calendar and work with administration to determine a summer schedule for your program

June

- Visit and build relationships with community partners
- Develop/change curriculum as necessary and appropriate for the upcoming year
- Visit students at their work-based placements

July

- Visit and build relationships with community partners
- Develop/change curriculum as necessary and appropriate for the upcoming year
- Visit students at their work-based placements
- Meet with leadership of student CTSO to determine calendar for the following year

APPENDIX A – Resources for CTE Educators

Resources and the ability to find resources in a timely manner are important for the success of any CTE educator. The following list, although not exhaustive, is a starting point to find information for the practicing CTE educator. The goal of these resources is to help aid progress both in and out of the classroom in understanding CTE from the National level, Michigan CTE, grants, development and maintenance of a CTSO, and experiential learning. These resources serve as a foundation for development and maintenance of CTE programs.

National CTE Web Resources

Website Overview	Website Link
Perkins Collaborative Resource Network	http://cte.ed.gov/
Perkins Collaborative Resource Network (State	http://cte.ed.gov/stategrants/index.cfm
Formula Grants)	
National CTE At-a-Glance	http://www.careertech.org/career-technical-
	education/
National CTE Vision	http://www.careertech.org/career-technical-
	education/cte-vision.html
Michigan CTE Profile	http://cteworks.careertech.org/state-
	profile/details/michigan
National CTE Education Resources (by state)	http://www.khake.com/page36.html
CTE Online (curriculum and resources)	http://www.cteonline.org/
CTE Online (classroom resources)	http://www.cteonline.org/portal/default/Resour
	ces/ResourceOverview?action=2&view=overvi
	<u>ew</u>
Association for Career and Technical Education	https://www.acteonline.org/cte/#.U2DgQGfQc
(What is CTE?)	<u>cA</u>
Agriculture Teacher's Manual	https://www.ffa.org/documents/edr_teachn
	<u>bk.pdf</u>

Michigan CTE Web Resources

Website Overview	Website Link
Michigan Department of Education Career and	https://www.michigan.gov/mde/0,1607,7-
Technical Education	140-6530_2629_53968,00.html
Office of Career and Technical Education FAQ	http://www.michigan.gov/documents/mde/OC
	TE FAQ September 2012 398816 7.pdf
Administrative Guide for Career and Technical	http://www.michigan.gov/documents/mde/Ad
Education in Michigan	ministrative Guide for CTE 369521 7.pdf
Career and Technical Education Information System (CTEIS)	https://www.cteis.com/default.aspx
CTEIS Instructional Design (Examples)	http://www.ptdtechnology.com/Portals/4/
	PTD/Files/CTEIS/UserDocs/4483D/4483
	_InstructionalDesignForm.pdf
Michigan CEPD County List	http://www.ptdtechnology.com/Portals/4/
	PTD/Files/CTEIS/CEPD%20Look%20Up.
	pdf
Michigan CTE Navigator (Michigan CTE Standards and resources)	http://ctenavigator.org/
Michigan Standards for Teacher Preparation	http://www.michigan.gov/mde/0,4615,7-140-
	6530_5683_6368,00.html
MDE Child Labor Law Youth Employment in	http://www.michigan.gov/mde/0,4615,7-
Michigan	140-6530_2629_59590,00.html
MDE CTE Content Standards	https://www.michigan.gov/documents/md
	e/CTE_Content_Standards_290484_7.pdf
MDE CTE Michigan 2 + 2 Alignment Plans	https://www.michigan.gov/mde/0,4615,7-
	<u>140-6530_2629_53968-220322,00.html</u>
MDE CTE Skills Assessments	http://www.michigan.gov/mde/0,4615,7-
	<u>140-6530 2629 53970,00.html</u>
Michigan Teacher Certification	http://www.michigan.gov/mde/0,4615,7-140-
	6530_5683_14795,00.html
Facts On Educator Certification in Michigan	http://www.michigan.gov/documents/mde/Fact
	s_About_Teacher_Certification_In_Michigan_
	<u>230612_7.pdf</u>
Michigan Educator Certification Status	https://mdoe.state.mi.us/MOECS/PublicCreden
	tialSearch.aspx
Michigan Online Educator Certification System	http://www.michigan.gov/mde/0,1607,7-140-
	6530_5683_57223,00.html

Grants

Website Overview	Website Link
United States Department of Labor Grants	http://www.dol.gov/opa/media/press/eta/ETA2
	<u>0140580.htm</u>
Michigan Department of Education Grants	http://www.michigan.gov/mde/0,1607,7-140-
	5236,00.html

Youth Leadership

Website Overview	Website Link
U.S. Department of Education (CTSO Definitions)	http://www2.ed.gov/about/offices/list/ova
	e/pi/cte/vso.html
ACTE – CTE Clearinghouse Career and Technical	https://www.acteonline.org/general.aspx?id
Student Organizations	=2215#.U2fCO9zReao
Virginia CTE Resource Center	http://www.cteresource.org/verso/courses/9096
	/leadership-development-extra/untitled~9096

Experiential Learning

Website Overview	Website Link
Michigan Definition of Experiential Learning	http://www.michigan.gov/documents/mde/expe
	riential_learning_memo_8-28-
	<u>07 207984 7.pdf</u>
David Kolb (Kolb's Experiential Learning Cycle)	http://www2.le.ac.uk/departments/gradsch
	ool/training/eresources/teaching/theories/k
	<u>olb</u>
Web Sites on Experiential Learning	http://njaes.rutgers.edu/learnbydoing/webli
	nks.html
UNESCO – Teaching and Learning for a Sustainable	http://www.unesco.org/education/tlsf/mo
Future	ds/theme_d/mod20.html
Association for Experiential Education	http://www.aee.org

Advisory Committees

Website Overview	Website Link
MDE Program Advisory Committee Tool Kit	http://www.michigan.gov/documents/mde
	/Program_Advisory_Committee_Tool_Kit_
	05-08_289345_7.pdf
Advisory Committee Handbook: Michigan	Stankewicz, B., Advisory Committee
Department of Education	Handbook: Michigan Department of
	Education. Lansing, MI: VTE Marketing
	Center.
Standards for Excellence	Showerman, R. (1991) Standards for
	Excellence. Lansing, MI. Michigan.
	Department of Education