Tech Prep 101: An Introduction

September 14, 2016
Presentation Overview

Tech Prep Launched in Ohio

Funding Structure Mission Changes

Six Regions Standardized Service

1991 2011 Current
Perkins Charge for CTE

- Provide professional development
- Serve special populations
- Integrate rigorous academic and technical knowledge and skills
Perkins Charge for CTE

- Offer **seamless transition** from high school to further education
- Align programs with **high-skill, high demand occupations**
- Be **accountable** for results
- Collaborate with **business & industry**
Role of Tech Prep Centers

• Liaison to secondary and postsecondary partners to ensure Ohio maintains high-quality career-technical education programs
We Are Career Tech

Not Your Parent's Vocational Education

https://youtu.be/0tuvpFakfm0

ODE & ODHE
Management
State & Federal
Funding

23 Consortia
Local Governance
Entrepreneurial

Selected Pathways
Designated Tech Prep

1991  2011
Tech Prep: 2012 – Now

ODE & ODHE
- Joint Management
- Statewide Goals
- All Career Tech = Tech Prep

Collaboration
- 6 Regional Centers
- Staff at 28 Colleges
- Support 91 Districts
- 37 Postsecondary

Services
- Pathway Development
- Technical Support
- Curriculum Alignment
- Credit Opportunity

2012  NOW
Tech Prep Mission

• To increase student access to quality career-technical education pathways by connecting secondary and postsecondary partners and leading the development of state-approved Programs of Study
Tech Prep Vision

- To provide high-level support services to Ohio’s 91 career-technical education planning districts, 23 community colleges and 14 universities, impacting all career-technical education students in the state
Six Centers

Engaging Local

- CTPDs
- Colleges
- Pathways
- Employers

Ohio College Tech Prep
Building Quality Career Pathways
Tech Prep Grant Goal

• Connect secondary (7-12), college, adult and apprenticeship programs in meaningful Career Pathways and Programs of Study
### An Example of Courses with Secondary and Postsecondary Credits

<table>
<thead>
<tr>
<th>Secondary</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Postsecondary</th>
<th>1st Semester</th>
<th>2nd Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### High School Career-Technical Education Program Courses

- **High School Courses for Postsecondary Credit (Including Apprenticeship Hours) and the Corresponding Postsecondary Courses**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Recommended Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Visit education.ohio.gov/CareerConnections for reference information.

Course titles and sequences will vary between schools.

11/2014
Tech Prep Grant Goal

• Provide opportunities to earn college credit through College Credit Plus, statewide articulations and bilateral articulation agreements, or pathways into adult-focused CTE clock hour programs
<table>
<thead>
<tr>
<th></th>
<th>Bilateral Articulation</th>
<th>CTAG</th>
<th>College Credit Plus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>1 postsecondary and 1 or more high schools or districts—locally customized</td>
<td>Statewide recognized credit, high school and postsecondary courses are state approved</td>
<td>College owned course/college-specific grade—courses are often academic subjects—math, English, etc.</td>
</tr>
<tr>
<td><strong>Enrollment</strong></td>
<td>High school</td>
<td>High school</td>
<td>High school &amp; college; academic readiness required</td>
</tr>
<tr>
<td><strong>Curriculum</strong></td>
<td>High school curriculum matches postsecondary expectations/local partners collaborate</td>
<td>High school/postsecondary curriculum aligned to statewide standards</td>
<td>College course delivered to middle/high school students by college-credentialed Instructors</td>
</tr>
<tr>
<td><strong>Credit Type</strong></td>
<td>Articulated or proficiency (test-out) awarded upon postsecondary enrollment—usually not transferable</td>
<td>Credit valid at all Ohio public colleges—application &amp; college enrollment required</td>
<td>Graded credit issued on college transcript upon successful course completion</td>
</tr>
<tr>
<td><strong>Assessment Requirements</strong></td>
<td>postsecondary sets criteria—credit by exam, portfolio review and/or secondary teacher validation</td>
<td>License, certificate, WebXam—statewide standardized assessment</td>
<td>College administered assessment</td>
</tr>
</tbody>
</table>
Tech Prep Grant Goal

- Assist school districts, Ohio Technical Centers and colleges in efforts to adhere to statewide Career-Technical Credit Transfer (CT2) requirements and bilateral agreement expectations.
CTAG Support

- Curriculum Alignment/Gap Analysis
- 20+ Secondary/Postsecondary Workshops
- Joint Ventures with ODHE Coordinators
- Teacher & Student Outreach
Local Articulation

- Bilateral articulation fill gap for specialized local need
- Almost 4,000 bilateral articulation agreements captured in new state database
Tech Prep Grant Goal

- Develop exemplary Career Pathways and Programs of Study; process program approval and program renewal applications
Program Renewal Support

- FY 16 processed 2,100 new and renewal CTE26 applications, ensuring all applications meet quality standards
- Verify pathways
- Facilitate partner engagement
### Program Renewal, Content Standards and Technical Test Development Schedule
#### Version 4.0 – September 2015

<table>
<thead>
<tr>
<th>Program Renewal Year *</th>
<th>Date CTC-26 Due to Ohio Department of Education</th>
<th>Career Field – Plus, Family and Consumer Sciences (FCS) and Career-Based Intervention (CBI)</th>
<th>Standards New (Available Spring)</th>
<th>Standards Renewal (Available Spring)</th>
<th>Courses Developed (Available Fall)</th>
<th>Courses Required (Required Fall)</th>
<th>End-of-Course (EOC) Tests New (Available Fall)</th>
<th>EOC Tests Renewal (Available Fall)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY15</td>
<td>3/1/14</td>
<td>CBI and JTC</td>
<td>2014</td>
<td>2017</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>FY15</td>
<td>3/1/14</td>
<td>Engineering</td>
<td>2013</td>
<td>2017</td>
<td>2013</td>
<td>2015 (FY16)</td>
<td>2013</td>
<td>2018</td>
</tr>
<tr>
<td>FY15</td>
<td>3/1/14</td>
<td>Manufacturing</td>
<td>2013</td>
<td>2017</td>
<td>2013</td>
<td>2015 (FY16)</td>
<td>2013</td>
<td>2018</td>
</tr>
<tr>
<td>FY16</td>
<td>3/1/15</td>
<td>Construction</td>
<td>2013</td>
<td>2017</td>
<td>2013</td>
<td>2015 (FY16)</td>
<td>2013</td>
<td>2018</td>
</tr>
<tr>
<td>FY17</td>
<td>3/1/16</td>
<td>Marketing</td>
<td>2014</td>
<td>2017</td>
<td>2014</td>
<td>2016 (FY17)</td>
<td>2015</td>
<td>2018</td>
</tr>
<tr>
<td>FY17</td>
<td>3/1/16</td>
<td>Health</td>
<td>2013</td>
<td>2016</td>
<td>2013</td>
<td>2015 (FY16)</td>
<td>2013</td>
<td>2017</td>
</tr>
<tr>
<td>FY17</td>
<td>3/1/16</td>
<td>FCS and GRADS</td>
<td>2016</td>
<td>2018</td>
<td>2015</td>
<td>2017 (FY18)</td>
<td>2016</td>
<td>2019</td>
</tr>
</tbody>
</table>

Changes since last Schedule (Version 1.4): Dates changed for FCS and GRADS. No other areas have had renewal year deadlines changed.

Note:
- FY14=2013–2014 School Yr.
- FY15=2014–2015 School Yr.
- FY16=2015–2016 School Yr.
- FY17=2016–2017 School Yr.
- FY18=2017–2018 School Yr.
### ADD COURSES

#### REQUIRED TECHNICAL

<table>
<thead>
<tr>
<th>Course</th>
<th>Curriculum Code</th>
<th>Grade Levels</th>
<th>Remove</th>
</tr>
</thead>
<tbody>
<tr>
<td>175001 - Engineering Design</td>
<td>V71/120-020</td>
<td>1st</td>
<td></td>
</tr>
<tr>
<td>175002 - Engineering Principles</td>
<td>V71/120-280</td>
<td>2nd</td>
<td></td>
</tr>
<tr>
<td>176003 - Manufacturing Operations</td>
<td>V71/120-280</td>
<td>3rd</td>
<td></td>
</tr>
<tr>
<td>178010 - Plan Reading</td>
<td>V71/120-280</td>
<td>10th</td>
<td></td>
</tr>
</tbody>
</table>

#### COLLEGE CREDIT OPPORTUNITIES

<table>
<thead>
<tr>
<th>Course</th>
<th>Curriculum Code</th>
<th>Grade Levels</th>
<th>Remove</th>
</tr>
</thead>
<tbody>
<tr>
<td>MET 111 Manufacturing Processes</td>
<td>NA</td>
<td>Post: Y1/S1</td>
<td></td>
</tr>
<tr>
<td>MET 131 Computer Aided Drafting</td>
<td>NA</td>
<td>Post: Y1/S1</td>
<td></td>
</tr>
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</table>

#### REQUIRED NON TECH

<table>
<thead>
<tr>
<th>Course</th>
<th>Curriculum Code</th>
<th>Grade Levels</th>
<th>Remove</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra I</td>
<td>N/A</td>
<td>8th</td>
<td></td>
</tr>
<tr>
<td>Algebra II</td>
<td>N/A</td>
<td>11th</td>
<td></td>
</tr>
<tr>
<td>American Government</td>
<td>N/A</td>
<td>12th</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>N/A</td>
<td>5th</td>
<td></td>
</tr>
<tr>
<td>COMM 110 Public Speaking</td>
<td>N/A</td>
<td>Post: Y2/S2</td>
<td></td>
</tr>
<tr>
<td>CULT 110 Social Issues in Technology</td>
<td>N/A</td>
<td>Post: Y2/S2</td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td>N/A</td>
<td>11th</td>
<td></td>
</tr>
<tr>
<td>ENG 101 English Composition</td>
<td>N/A</td>
<td>12th</td>
<td></td>
</tr>
<tr>
<td>Engineering Physics</td>
<td>N/A</td>
<td>7th, 8th</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>N/A</td>
<td>10th</td>
<td></td>
</tr>
<tr>
<td>English 10</td>
<td>N/A</td>
<td>11th</td>
<td></td>
</tr>
<tr>
<td>English 11</td>
<td>N/A</td>
<td>11th</td>
<td></td>
</tr>
<tr>
<td>English 12</td>
<td>N/A</td>
<td>12th</td>
<td></td>
</tr>
<tr>
<td>English 3</td>
<td>N/A</td>
<td>8th</td>
<td></td>
</tr>
<tr>
<td>Geometry</td>
<td>N/A</td>
<td>10th</td>
<td></td>
</tr>
<tr>
<td>MAT 125 Algebra and Trigonometry</td>
<td>N/A</td>
<td>Post: Y1/S1</td>
<td></td>
</tr>
<tr>
<td>MAT 126 Functions and Calculus</td>
<td>N/A</td>
<td>Post: Y1/S1</td>
<td></td>
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<tr>
<td>MET 101 Intro to Mechanical Engineering Technology</td>
<td>N/A</td>
<td>Post: Y1/S1</td>
<td></td>
</tr>
<tr>
<td>MET 112 Manufacturing Processes 2</td>
<td>N/A</td>
<td>Post: Y1/S1</td>
<td></td>
</tr>
<tr>
<td>MET 113 Manufacturing Processes 3</td>
<td>N/A</td>
<td>Post: Y1/S1</td>
<td></td>
</tr>
<tr>
<td>MET 132 Computer Aided Drafting</td>
<td>N/A</td>
<td>Post: Y1/S1</td>
<td></td>
</tr>
<tr>
<td>MET 140 Engineering materials</td>
<td>N/A</td>
<td>Post: Y1/S1</td>
<td></td>
</tr>
<tr>
<td>MET 150 Statics and Strength of Materials</td>
<td>N/A</td>
<td>Post: Y1/S1</td>
<td></td>
</tr>
<tr>
<td>MET 160 Electrical Applications for MET</td>
<td>N/A</td>
<td>Post: Y2/S1</td>
<td></td>
</tr>
<tr>
<td>MET 230 Quality control and Six Sigma</td>
<td>N/A</td>
<td>Post: Y2/S1</td>
<td></td>
</tr>
<tr>
<td>MET 240 Hydraulics and Pneumatics</td>
<td>N/A</td>
<td>Post: Y2/S1</td>
<td></td>
</tr>
<tr>
<td>MET 285 Mechanical Engineering Technology Capstone Project 1</td>
<td>N/A</td>
<td>Post: Y2/S1</td>
<td></td>
</tr>
</tbody>
</table>
Tech Prep Grant Goal

• Ensure students are aware of and take advantage of postsecondary credit options
Start Pre-Health
As early as grade 7
(based on readiness)

Dental Assistant
Median Salary: $33,690
Job Growth (10 yr): 20.5%
Annual Openings: 416
Average Tuition (1 yr): $0 – $3,900/yr

Dental Hygienist
Median Salary: $65,510
Job Growth (10 yr): 26.3%
Annual Openings: 345
Average Tuition (2 yrs): $3,900/yr
Average Tuition (4 yrs): $9,600/yr

Dentist
Median Salary: $158,460
Job Growth (10 yr): 9.5%
Annual Openings: 186
Average Tuition (4 yrs): $35,000/yr

Workplace Visits
Job Shadow
Internship
Work

Supervised Experience
---
Work

Supervised Experience
Internship
---
Work

Internship
---
Work

Provided by middle schools, high schools, employers, Ohio Tech Centers, and colleges.

Preparing students for multiple options after high school:
gainful employment and/or postsecondary study.
Northwest Regional Center
Kathy Siebenaler Wilson

• The University of Toledo
• Owens Community College
• Northwest State Community College
• Terra State Community College
• Rhodes State College
• Edison State Community College
• Clark State Community College
Southwest Regional Center
Terry Benedict

- Cincinnati State Community College
- Miami University
- University of Cincinnati
- Southern State Community College
- Ohio University
- Shawnee State University
- Sinclair Community College
- Central State University
- Wright State University
Central Ohio Regional Center

Tom Kluding

- North Central State
- Columbus State Community College
- Central Ohio Technical College
- Marion Technical College
Northeast Regional Center
Andrew Cox
• Cuyahoga Community College
• Lakeland Community College
• Lorain County Community College
East Central Regional Center
Kelly Herold

• University of Akron
• Kent State University
• Youngstown State University
Southeast Regional Center

Ken Bowald

- Washington State Community College
- Belmont Technical College
- Eastern Gateway Community College
- Hocking College
- Rio Grande Community College
- Zane State College
Ohio College Tech Prep
Information

http://education.ohio.gov/Topics/Career-Tech/College-Tech- Prep