Department of
EDUCATION
Office of Educational Improvement and Innovation
Public Service Building
255 Capitol Street NE
Salem, OR 97310-0203
503-947-5600
Fax 503-378-5156
http://www.ode.state.or.us/go/cte/

Oregon Department of Community Colleges and Workforce Development
Public Service Building
255 Capitol Street NE
Salem, OR 97310-0203
503-378-8648
Fax 503-378-3365
http://www.odccwd.state.or.us/prgapproval/

Career and Technical Education
Program of Study Application (Perkins Eligible)
2011 Version

Directions—please enter information into ALL the fields in this application. (If you have technical problems with this application, contact Ron Dodge—503-947-5653, ron.dodge@ode.state.or.us.)

Secondary School District:	St Helens SD 502
Secondary School ID Number:	**185**
Secondary School Name:	**St Helens HS**
Community College Name:	**Portland Community College**
Additional/Alternate College Name:	

CTE POS—Title:	**Drafting Technology**		
Career Area:	Industrial Engineering Systems--IE		
Cluster Area:	IE--Engineering		
Focus Area:			
Secondary CIP Code & Title:	1513 (4 digit)	Drafting/Design Engineering Technologies/Technicians	
Community College CIP & Title:	15.1301 (6 digit)	Computer Aided Design and Drafting (CAD)	
Secondary Program Title:	Drafting Technology		
Community College Program Title:	COMPUTER AIDED DESIGN AND DRAFTING		
Community College Award:	Associate of Applied Science		
Secondary School/District Administrator:	Andy Croley	andyc@sthelens.k12.or.us	
Secondary Curriculum Coordinator:		Enter email	
Regional Coordinator/Contact:	2A--Lynn Wilson-Dean	lynn.wilsondean@pcc.edu	
Community College Contact:	Kendra Cawley	kcawley@pcc.edu	
Secondary Lead teacher:	John Tainter	johnt@sthelens.k12.or.usl	
Teacher CTE Endorsement:	Select Teacher CTE EndorsementI&E Eng Tech	07/04/2011	
	Engineering Tech 024		
	Standard Tech Ed 018		
College Lead or Department Chair:	Truman, Glen F	gtruman@pcc.edu	
		Enter email	
Secondary CTE POS Visual **Hyperlink**: (or include a hardcopy of visual in Addendum B)	http://spot.pcc.edu/pavtec/HS%20POS%20Roadmap%20Templates/	☐ No link, but included in Addendum B	
CC CTE POS/Pathway Visual **Hyperlink**: (or include a hardcopy of visual in Addendum B)	http://www.pcc.edu/programs/drafting-design/	☐ No link, but included in Addendum B	

Submit complete application materials by email to your CTE Regional Coordinator.
(Regional Coordinator: Email application and addenda to this mailbox-- POS.Application@state.or.us)

CTE POS Course Lists—Secondary

Please list the CTE Program of Study Secondary Courses below. "Core Courses" are those in which the CTE teacher will:

- **Teach with intent and purpose the CTE POS knowledge and skills identified in the CTE POS' Skill Set**
- **Assess and record student achievement of those standards**
- **If your secondary school does not have course numbers, contact Ilene Spencer**
- **It is expected that it will take at least 2 credits to complete a skill set and prepare the student for the technical skill assessment.)**

Secondary Core CTE Courses

TSA* Required	School Course #	Secondary Course Name	# of Credits	5-digit NCES Code	Course Description (brief) (boxes below will expand)	Teacher Name	**CN?	Articulating College	College Course #	College Course Name
☐	211022	DRAFTING TECHNOLOGY 1	0.5	21102	This course is designed for the student who wants to learn the basics drafting for Engineering and Architecture. Students will use 3D CAD (Computer Aided Drawing) programs. These programs are Solid Works and Chief Architect.	Tainter	☒	PCC	DRF 117	DRAFTING FUNDAMENTALS
☐	211021	DRAFTING TECHNOLOGY 1	0.5	21102	This course is designed for the student who wants to learn the basics drafting for Engineering and Architecture. Students will use 3D CAD (Computer Aided Drawing) programs. These programs are Solid Works and Chief Architect.	Tainter	☒	PCC	DRF 270	OLIDWORKS FUNDAMENTALS
☐	211062	DRAFTING TECHNOLOGY 2	0.5	21106	This course is divided into two sections. In the 1st semester students will further develop their understanding of Mechanical Drawing using Solid Works. In the	Tainter	☒	PCC	ARCH 111	WORKING DRAWINGS

					2nd semester the student will further develop their understanding of Architecture using Chief Architect..					
☐	211061	DRAFTING TECHNOLOGY 2	0.5	21106	This course is divided into two sections. In the 1st semester students will further develop their understanding of Mechanical Drawing using Solid Works. In the 2nd semester the student will further develop their understanding of Architecture using Chief Architect.	Tainter	☒	PCC	DRF 117	DRAFTING FUNDAMENTALS
☐	211031	DRAFTING TECHNOLOGY ADVANCED	0.5	21103	At this point in the third year of drafting students will choose the area in which they wish to specialize. The student will use either Solid Works or Chief Architect. They will use conceptual design, design development, interior design and construction documentation in an architectural project. In the engineering side, the student will create and edit parametric parts, assembly models, and drawings with engineering being the basis or design. Portland Community College credit may be given.	Tainter	x	PCC	ARCH 111	Working Drawings
☐	211032	DRAFTING TECHNOLOGY ADVANCED	0.5	21103	At this point in the third year of drafting students will choose the area in which they wish to specialize. The student will use either Solid Works or Chief Architect.	Tainter	☒	PCC	DRF 270	SOLIDWORKS FUNDAMENTALS

					They will use conceptual design, design development, interior design and construction documentation in an architectural project. In the engineering side, the student will create and edit parametric parts, assembly models, and drawings with engineering being the basis or design. Portland Community College credit may be given.					

**TSA required—Technical Skill Assessment required course—required courses that, when completed, trigger TSA assessment eligibility for the student*
*** CN = College Now—course identification as College Now or articulated courses*

CTE POS Course Lists—Post-Secondary

Post-secondary Core CTE Courses: *List all courses that complete delivery of the identified Skill Set—those included in the Course/Skill Set crosswalk matrix*

Name of Certificate or Degree Program	Enter name of college program			Degree or Certificate:	Select certificate or degree
College Course #	Post-Secondary Course Name	Number of Credits	*College Now?	Course Description (brief) (boxes below will expand)	
DRF 117	DRAFTING FUNDAMENTALS	4	☒	INTRODUCES SKILLS NEEDED TO PRODUCE 2-D MECHANICAL DRAWINGS, INCLUDING ORTHOGRAPHIC PROJECTION, SECTIONS AND PICTORIAL DRAWING. COVERS DIMENSIONING BASICS AND SIMPLE ARCHITECTURAL PLANS AND SECTIONS.	
DRF 270	SOLID WORKS FUNDAMENTALS	3	☒	Introduces SolidWorks software as a 3-D design tool. Covers creation, retrieval and modification of 3-D and layout drawings using basic SolidWorks commands. Includes skills needed to create parametric models of parts and assemblies; generate dimensioned layouts; and Bill of Materials of those parts and assemblies.	
ARCH 111	ARCH 111 Working Drawings	3	☒	I 3 Covers standards of architectural drafting and preparation of construction documents for typical residential construction. Construction process and terminology will also be examined. Prerequisite: ARCH 110 and (ARCH 126 or ID 125) Recommend: ARCH 121, 124.	
arch 140	ARCH 140 Introduction to CHIEF ARCHITECT	3	☒	3 Introduces CHIEF ARCHI- TECT software as a design and drafting tool, its applications to architecture, and covers creation, retrieval and modification of drawings using basic commands. Course is also worth 60 LU credits to AIA members.	

** CN = College Now—course identification as College Now (or articulated courses)*

Please use the Excel spreadsheet posted online at (http://www.ode.state.or.us/search/results/?id=225), or use one you've created locally to crosswalk the identified Skill Set against the listed courses.
(See Addendum A under Element 1 below)

DIRECTIONS:
- **The lists of "Required elements for evaluation" at the end of each section below are documents expected to be included as addenda with this application.**
- **The Oregon Benchmarks (in the Accountability & Assessment section below) represent statewide goals that Oregon has set to ensure progress towards federal and state requirements.**

- **Expandable space is provided for comments. This can be filled from the "Strengths" and "Challenges" sections of the POS Application Guide found on the website.**
- **Attach appropriate documentation as described in the Addendum part of each Element section.**

Element 1: Standards & Content

☒ A. Relevant, rigorous standards-based content aligned with challenging academic standards;
☒ B. Shared secondary and post-secondary technical content which incorporates the knowledge and skills identified in the Oregon Skill Sets or other industry-based standards, which are validated through national and state employer input;
☒ C. The program is of sufficient size, scope and sequence to include curriculum and instruction leading to student attainment of academic and technical knowledge and skills for high school graduation, college entry, and careers within **high wage, high demand fields**.
☒ D. Systemic approach to CTE using industry-based academic and technical knowledge and skills where student performance is demonstrated through valid and reliable assessments aligned to industry standards; and
☒ E. Assure secondary and post-secondary students are prepared for **high demand and high wage careers and occupations** that are responsive to regional, state or global employment trends.
☒ F. Safety and drug-free workplace expectations are an integral, explicit and mandatory part of the CTE instructional program. Laboratory spaces with power equipment model a safe and clean learning environment. Available safety certification is required for students, as appropriate.
☒ G. Based on the Program Design and instructional plan where each student will:
- ☒ Recognize connections between academic and technical content;
- ☒ Meet diploma requirements, post-secondary entry requirements, and certificate/degree requirements;
- ☒ Demonstrate mastery of academic and technical content that is aligned with industry standards;
- ☒ Apply learning through authentic experiences, and
- ☒ Build confidence to compete in high wage, and/or high demand occupations.

Comments and additional information: Please address the questions for both the Secondary Partner and the Post-Secondary Partner found in the "Areas of Strength" and Priority Concerns" worksheet at the end of this section of the ***Readiness and Sustainability Tool***:

SUCCESSES:

1. In combined meetings of high school and PCC staff and after reviewing other skill sets, it was agreed to base the high school curriculum on the PCC Course Content Outcome Guides (CCOGs) of the entry level courses of the related PCC program and the Oregon Skill Sets. The rational for this decision includes the fact that the PCC CCOGs are based on considerable validation of PCC program advisory committees and either directly or indirectly on licensing and/or certification standards of the occupations for which the programs are preparing students.
2. I articulate with PCC in the drafting area
3. I utilize speakers from National Engineers Week like last year we had a speaker from the DMV come.
4. I work with Oregon Skill Sets by applying problems related to the skill sets in my curriculum. (standards-based activities)
5. I do Connections meetings with PCC in Drafting to understand what other schools and PCC are doing.

CHALLENGES

1. I find the correlation between PCC and the Oregon Skill sets easy to work with. There are skills that need to be incorporated into the program.
2. The drawings that are produced by students will tell me if they have accomplished the skill set. The challenge is get all students to accomplish the skill.
3. Another challenge is to have students pass the Skills USA competency test.

4. I would like to do more field trips with students. To correct this problem I would like to connect with another teacher and go to places like Boeing, Daimler Chrysler, Engineering and Architectural studios.

The academic community at Portland Community College (PCC) has developed and approved PCC Core Outcomes that are common to graduates of all PCC programs and aligned with general education goals. Core outcomes cover six areas—communication, community and environmental responsibility, critical thinking and problem solving, cultural awareness, professional competence and self-reflection.

CTE students at PCC are assessed on their ability to demonstrate certificate and AAS degree outcomes for their program area of concentration. The current methods of assessment may include one or more of the following: oral or written examinations, quizzes, written assignments, visual inspection techniques, safe work habits, task performance, and work relations.

PCC's Curriculum Support Office is in the process of gathering all current CTE Program Outcomes and publishing them to a website under their respective certificates and AAS degrees (http://www.pcc.edu/resources/academic/degree-outcome/index.html).

In the PAVTEC Work Sessions that included both PCC and secondary school staff, academic (reading, writing and math) entrance expectations of PCC and specifically PCC CTE programs were discussed and cross walked with high school course curricula. The curricula of the high school's CTE Programs of Study, combined with the school's diploma requirements, are designed to prepare students to meet or exceed those expectations.

Students in PCC's three building arts programs (**Architectural Design and Drafting**, Building Inspection Technology, and Interior Design) are "testing" a new approach to bridge the relationship between what they are learning in their two-term introductory to algebra classes (Math 60 and 65) with the requirements of their technical program work. The programs are offering sections of Math 60 and 65 during 2010-2011 that are **only** for students in the three building arts programs. The plan is for the "test" to help all students in the program and also help those who have struggled with math in the past by providing additional support, a cohort environment, required study group time, and using examples and problem sets that are related to students' future career choices.

Addendum A: Skill Standards/Content/Course Crosswalk

Directions: Create an Addendum A folder for properly identified examples of the items listed below:

Required documentation for Element 1:

- Identify industry validated technical skill standards/skill sets; list all Knowledge and Skill Statements for the Cluster, and include Focus Area KS statements if appropriate (Performance Indicators are not necessary for this documentation)

- Standards-to-course crosswalk/mapping—Please use the Excel spreadsheet posted online at (http://www.ode.state.or.us/teachlearn/pte/posexampleskillmatrixfield.xls), or use one you've created locally to crosswalk the identified Skill Set against the listed courses. All courses identified in the secondary and postsecondary course lists on pages 2 and 3 should be included.

Element 2: Alignment & Articulation

☒ A. An expectation that the elements defined in the Perkins Act will ensure a greater depth and breadth of student learning through the alignment and integration of challenging academic and technical standards in curriculum, instruction and assessment. [Sec.122(c)(1) & Sec. 134(b)(3)]

☒ B. A unified, cohesive sequence of content among secondary and post-secondary partners; a non-duplicative sequence of courses or learning experiences; students receive credit for prior learning whenever possible.

☒ C. Alignment of content between secondary and post-secondary education may include course articulation or other ways to acquire Post-secondary education credits (e.g. Oregon's Credit for Proficiency, Dual Credit, etc.).

☒ D. Articulation agreements are developed, implemented and supported at the institutional level to ensure long-term sustainability and cross-sector cooperation.

☒ E. Based on the program design and instructional plan, each student will:

- ☒ Not need to take a remedial course;
- ☒ Continually progress in knowledge and skills when ready;
- ☒ Earn high school or college credit based on performance; and
- ☒ Make the connection between educational preparation and entry into a caree**r**.

Comments and additional information*:** Please address the questions for both the Secondary Partner and the Post-Secondary Partner found in the "Areas of Strength" and Priority Concerns" worksheet at the end of this section of the ***Readiness and Sustainability Tool:

SUCCESSES:

A. My CTE program uses CAD programs: Chief Architect and Solid Works. We also use Microsoft Word, MS Powerpoint, various printers, computers, and overhead projectors (In focus). With the articulation agreement the students will learn the technical and academic skills that are required.

B. Thru PCC there is a career Plan of Study in the Engineering and Architectural area. All students have access to this site to see what is required to enter into their area of study. This correlates with St Helens High School and the courses offered here.

C. Thru PCC there is a Career Plan of Study in the Engineering and Architecture area. To keep the plan on course I have to follow the road maps. I am articulating my courses with PCC in Chief Architect and Solid works. The courses that I am articulating now are DRF 117 Drafting Fundamentals, Arch 111 Working Drawings, Arch 140 Chief Architect, and DRF 270 Solid Works Fundamentals.

D. Through PCC Dual Credit 2009-2010 Annual report shows articulation credit for St. Helens High School/Career and Technical Education.

E. We have Connections meetings at PCC to connect with PCC facility and other teachers in our content area.

F. The articulated courses are transferable to other colleges and to PCC.

CHALLENGES

A. I would like more involvement with PCC about my courses.

B. I feel I can accomplish this by setting up meetings with professors and going to see them at their work place.

C. I feel I can accomplish this by taking courses that relate to my curriculum at PCC.

CTE students count on their secondary academics and exposure to possible careers to help shape their futures. In this unstable economic climate, it is more important than ever to match secondary Programs of Study with post-secondary certificates or degrees that lead to high-wage, high-skill, and high-demand jobs based on updated regional or state labor market information.

Dual credit classes provide an opportunity for high school CTE students to transition smoothly from high school to college, in a non-duplicative program of study. Articulated courses also help in shortening time-to-completion of a degree or certificate. Having dual credit available to high school programs is a motivator for students to not only stay in school, but it also motivates students to do well in their classes as articulated courses are directly tied to a college transcript. Dual credit courses offer a broader, stronger high school curriculum and assists with increasing student readiness for college level work.

Dual credit facilitates productive interaction between high schools and the college for curriculum development while enhancing college-school-community relations. In addition, articulation agreements reduce the redundancy of courses between high school and college. Coordinated curriculum helps to assure students meet college standards.

The college's dual credit staff continues to work with high school CTE teachers to make sure students are properly registered for dual credit, and that grades are recorded for dual credit offerings. Dual credit registration is now on-line at the college so this will help facilitate the process for student's to register and participate.

Allowing high school students to receive college credit for CTE high school courses that meet college standards is an important part of students' successful transition to either post-secondary education or higher starting salaries. By providing specific guidance to meet college-level requirements, credit articulation agreements also help support higher quality secondary CTE courses and more qualified CTE teachers. It is important to acknowledge that a lot of barriers still exist that apply to awarding college credit for high school courses. Even when curriculum is aligned, there are issues relating to course delivery and/or instructor qualifications that are "deal-breakers" for dual credit. For Portland Community College, adherence to the faculty-defined Instructor Qualifications is tremendously important for maintaining accreditation standards. On the other hand, when students take a high school course that is substantially the same as a college course, there is reasonable concern that student effort may be duplicative.

In addition to the Institutional Articulation Agreements described above, course-to-course credit articulation agreements are in place for many courses, and will continue to be developed. Updated agreements are prepared annually in the fall by the college's dual credit staff and signed by appropriate secondary and post-secondary staff.

Addendum B: Alignment/Articulation Documentation

Directions: Create an Addendum B folder for properly identified examples of: 1) Evidence of partnerships and/or institutional collaboration, 2) alignment or articulation documentation, 3) POS visuals, including documentation created by any CTE POS partners, especially those created jointly.

Required documentation for Element 2:

- Provide evidence of institutional partnerships and collaboration

- Articulation agreement between secondary and post-secondary institutions, showing alignment of standards
- **Provide a CTE POS visual (road map, diagram, chart of courses through college) showing courses and activities available at secondary, multiple entry points at post-secondary, multiple exit points and bridged pathway options, as appropriate; CTE POS visual should illustrate clearly for student, the pathway focus of CTE POS, as well as options related to the CTE POS—(Note: If you have included a hyperlink to these visuals on Page 1 of this application, you do not need to include a copy in this Addendum)**

Element 3: Accountability & Assessment

☒ A. Business, community and education partners, such as an Advisory Committee, participate in evaluating program vision, goals and priorities such as:
- ☒ Assist in CTE program of study development and validation of industry skill standards for curriculum content and technical skill assessment, where appropriate,
- ☒ Play an active role in curriculum development, implementation and program evaluation,
- ☒ Participate in the CTE teacher recruitment, instructor appraisal process and ongoing faculty professional development.

☒ B. Each Perkins-eligible CTE program of study's performance shall be measured against the set of Perkins-required performance measures as described in Perkins IV Measurement Definitions. [Perkins Section 113 (2)(A-B)].

☒ C. Perkins performance data is used for data-driven, CTE program of study improvement decisions (See page 12 of this document)

☒ D. Based on the Program Design and instructional plan each where each student:
- ☒ Monitors their own progress through their demonstration of attaining standards
- ☒ Demonstrates their technical and academic proficiency in meaningful ways
- ☒ Adapts their program to meet their personal goals based on industry requirements and performance outcomes

---

Comments and additional information: Please address the questions for both the Secondary Partner and the Post-Secondary Partner found in the "Areas of Strength" and Priority Concerns" worksheet at the end of this section of the ***Readiness and Sustainability Tool***:

SUCCESSES

- In the Engineering and Architectural drawing class I have guest speakers come in to present to my students. I have had them in to look over their drawing and make suggestions. They have spoken on their professions and what it entails. It was suggested that with the articulation in Solidworks that the students take the same semester examination that PCC students take to qualify for a college grade in the articulated course.
- From the Technical skills core indicators for our district for the year 2008-2009 shows we are rght at the state average.
- Appropriate Program of Study modifications will be made based on the analysis of the data mentioned above.
- Looking for some assessment strategy such as Skill USA competency test.

CHALLENGES

- I find the most challenging part of preparing TSA to be time. Getting the curriculum to cover all the requirements and devise problems that will challenge and teach the students.
- I used PCC curriculum guide, but I would like to see the problems that the PCC instructor uses to develop my program further.
- I know I will be successful when students pass the Skills USA competency test and students receive a passing grade in class.

Instituting "valid and reliable" Technical Skills Assessments across a broad range of Programs of Study is a challenge that continues to need evaluation, development and implementation. In order to meet the ambitious Technical Skills Assessment reporting deadlines, all Perkins-eligible CTE programs at Portland Community College have begun collecting and sharing information about what each CTE program is currently doing for skills assessment, discussing technical challenges that interfere with other comprehensive assessment, reviewing existing and new assessment tools, selecting appropriate tools, matching technical skills assessment with useful industry standards, and sharing strategies about how to address academic deficiencies revealed by skills assessment. Many CTE departments are using current licensure or industry certification exams as their TSA, some are using nationally developed standardized tests, and others are creating their own assessments.

Element 3 (continued: Student Data)

Prior CTE Student Performance Data Analysis

Secondary Student Data Analysis—part 1

An analysis of prior CTE concentrator performance will help identify any performance measures that may need to be addressed to increase concentrator academic and technical skill attainment, as well as the other performance indicators. The analysis of prior CTE concentrator performance data may guide you toward identifying appropriate priority goals and strategies for CTE program improvement.

Prior CTE Concentrator Performance Reports with student performance targets are available at CTE Student Data Reports

In the fields below, enter the student data you have for prior year student data for up to 3 prior years. Also, enter this year's Target Performance goals, as well as actual Current Year School Wide Performance Data.

CTE Performance Indicator	Prior Year CTE Performance Year: 2008-2009	Most Recent School Wide Performance Year: 2008-2009	Most Recent State Wide Performance Year: 2008-2009	Target School Wide Performance Year: 2009-2010	Final Perkins IV Target Performance Year: 2013-2014
1S1—Academic Attainment (***Reading***)*	61.90%	64%	72.26%	60%	100%
1S2—Academic Attainment (***Mathematics***)*	54.76%	36%	66.38%	59%	100%
1S3—Academic Attainment (***Writing***)*	42.86%	51%	58.79%	n/a	100%
2S1—Technical Skill Attainment	95.77%	Enter 2S1 Data	95.21%		Enter 2S1 Data
3S1—High School Completion	97.67%	Enter 3S1 Data	97.49%		Enter 3S1 Data
4S1—High School Graduation	98.51%	87.6%	97.05%	68.1%	Enter 4S1 Data
5S1—Secondary Placement	67.23%	Enter 5S1 Data	75.51%		Enter 5S1 Data
6S1—Nontraditional Participation	26.67%	Enter 6S1 Data	43.07%		Enter 6S1 Data
6S2—Nontraditional Completion	n/a	Enter 6S2 Data	28.17%		Enter 6S2 Data

*Annual Statewide Academic Targets for All Schools and Districts

School Year	Reading	Mathematics	Writing
2008- 2009			
2009- 2010	60%	59%	60%
2010- 2011	70%	70%	70%
2011- 2012	80%	80%	80%
2012- 2013	90%	90%	90%
2013- 2014	100%	100%	100%

No Data Available for 2009 – 2010 using 2008 – 2009 where possible

No "Target School Wide Performance" Data for 2010 – 2011 Using 2009 - 2010

Secondary Student Data Analysis—part 2

Element 3 (continued: Student Data

NEED ANSWERS

***Please address the following* Guiding Questions for analysis of your CTE performance data listed on the previous page:**

1. How does your CTE concentrator performance compare to statewide performance on the CTE performance indicators?

Our CTE concentrator performance shows that the area of reading and writing and mathematics are lower than the state wide indicators

2. What might be the cause of your current performance if it lags behind statewide academic or CTE indicator performance?

As a whole school we have just started into building up the performance of the students. The students are just getting used to the mindset that their scores do count for their diploma from High School.

3. How does your program's CTE concentrator performance data compare with school-wide student performance data?

Our CTE concentrator performance shows that the mathematics of our students is better than the average student in school. The reading and writing are areas that need more concentration to bring their scores up.

4. Do you have indications that your CTE concentrators continue with their CTE program of study at the post-secondary level? Do any of these students require remediation before they continue with their program?

We do not have any indications that our CTE students will continue out of High School into the drafting program. I do have students that go into the Engineering programs at the university level and drafting at PCC. The student body, on the average, is older at PCC in the drafting engineering program than right out of High School.

5. What questions does your student performance data raise?

The questions raised from the data is, how can I increase more writing and math ability in my students. Am I giving enough word writing assignments? How can I have assignments that can be used in other classes for credit?

6. Key Question: What action steps will you take through this CTE POS design and implementation to assist students in improving performance?

Our school has all the teachers score written compositions by the students from the English department. The administration has requested that every teacher design more writing assignments in class about their subject. We have had department meetings and facility meetings about how to get more and better writing in our areas. I have students read books that show the process of using the CAD programs. I have them read technical manuals on various subjects. I have the students research on the internet various topics and report on them. Students write reports on magazine articles.

Post-Secondary Student Data Analysis—part 1

An analysis of prior CTE concentrator performance will help identify any performance measures that may need to be addressed to increase concentrator academic and technical skill attainment, as well as the other performance indicators. The analysis of prior CTE concentrator performance data may guide you toward identifying appropriate priority goals and strategies for CTE program improvement.

Prior CTE Concentrator Performance Reports with student performance targets are available at CTE Student Data Reports

In the fields below, enter the student data you have for prior year student data for up to 3 prior years. Also, enter this year's Target Performance goals, as well as actual Current Year School Wide Performance Data.

CTE Performance Indicator	Year 1 Prior CTE Performance Year: 2007-2008	Year 2 Prior CTE Performance Year: 2008-2009	Year 3 Most Recent CTE Performance Year: 2009-2010	Year 4 Next Target CTE Performance Year: 2010-2011	Year 5 Final Target CTE Performance Year: 2013-2014
			Data Not Available		
1P1(a)—Technical Skill Attainment (Locally Approved)	97.97%	97.71%			
1P1(b)—Technical Skill Attainment (State Approved)			Enter 1P1(b) Data	Enter 1P1(b) Data	Enter 1P1(b) Data
1P2—Academic Attainment	95.53%	95.92%	Enter 1P2 Data	Enter 1P2 Data	Enter 1P2 Data
2P1(a)—Credential, Certificate, or Degree Completion	54.85%	60.45%			
2P1(b)—Credential, Certificate, or Degree Completion			Enter 2P1(b) Data	Enter 2P1(b) Data	Enter 2P1(b) Data
3P1(a)—Student Retention or Transfer	71.08%				
3P1(b)—Student Retention or Transfer		67.96%	Enter 3P1(b) Data	Enter 3P1(b) Data	Enter 3P1(b) Data
4P1(a)—Student Placement	78.95%				
4P1(b)—Student Placement		76.51%	Enter 4P1(b) Data	Enter 4P1(b) Data	Enter 4P1(b) Data
5P1—Nontraditional Participation	22.99%	20.62%	Enter 5P1 Data	Enter 5P1 Data	Enter 5P1 Data
5P2(a)—Nontraditional Completion	19.26%				
5P2(b)—Nontraditional Completion		15.18%	Enter 5P2(b) Data	Enter 5P2(b) Data	Enter 5P2(b) Data

Post-Secondary Student Data Analysis—part 2

Please address the following guiding questions for analysis of your institution's CTE performance data listed on the previous page. These questions are intended for you to address how your program influences, or is effected by, your institution's CTE performance data:

1. What, if any, questions does your institution's performance data raise in regard to your program?

Portland Community College met the targets for five of the seven performance measures. On performance measure 3P1, Student Retention or Transfer, we met the target at the 90% threshold. On one performance measure, 5P2, Nontraditional Completion, we did not meet the target or the 90% threshold; however, because the formula was in the process of being evaluated and would be rewritten so that the details of the definition, and the numerator and denominator better aligned with program efforts, we were told not to be concerned with this performance measure until the update was made.

2. Describe any strategies that your program uses to influence CTE performance data at your institution (e.g. tutoring, professional development for educators, etc.).

Given that it can be difficult to track all of the CTE secondary students to all potential post-secondary sites, PCC measures performance by tracking the estimated percentage of students who meet the entry requirements of the aligned post-secondary program at high school graduation.

Portland Community College does measure on a term by term basis the number of entering students who test into developmental education courses. The college can disaggregate this data in many ways (i.e. age, zip code, high school (if provided)) but we are not yet able to link the data to the specific CTE programs that are POS. We are working on a way to mark these programs in our data system. The plan is for this to take place during the 2010-2011 academic year.

Addressed in answer to question 3.

3. Are there strategies/activities that you would like to incorporate, particularly in performance areas that may be below satisfactory level, in your program?

Every summer PCC's director of Institutional Effectiveness, two members of the data collection and research staff, and the college's Perkins Title I coordinator meet to review the Perkins performance measures, targets, and data results. The purpose of this meeting is to make sure that we know where we stand to date in regards to Perkins data collection, reporting and outcomes, and what our plans are for following academic year. Even though the college overall was successful in meeting the targets for the performance measures, we continue to develop strategies to better serve students of any particular category (gender, ethnicity, or special populations) who are not meeting the performance measure targets. This way we can make sure that the CTE Perkins-funded advisors and faculty are aware of the groups of participants and concentrators who are not meeting one or more performance measure(s) and make sure that we are providing them additional time, services and resources to improve our overall data results.

4. What actions will you take in your program to positively influence your institution's CTE student performance?

During fall 2009 through spring 2010 Portland Community College (PCC) and its Institutional Effectiveness Office (research) began looking at how we might improve our in-house data reports regarding the impact of Perkins funds at the college in Perkins-eligible CTE programs. We chose to expend efforts in this direction so that we could make more informative and strategic decisions regarding our use of the Perkins funds and their alignment with the purpose(s) of the grant. We also rewrote in-house data retrieval programs so that they better align with the Perkins' definitions for CTE students who are enrolled, served or a concentrator in CTE programs at the college. Most important, we have begun the process with the new in-house data reports to have a clearer idea of who we serve in our CTE programs, who is impacted by the Perkins funds, who should we be serving that we are not, and, finally, what is happening longer term to students who enroll in CTE programs (2008-2010 Perkins Student Longitudinal Progress Report). We were also interested in how long it is taking students at the college to make reasonable progress in our CTE programs. The conversations have only begun but the new in-house data is helping us focus on how we utilize and distribute the Perkins funds, what are the demographics and psychographics of the students we serve, what types of shifts do we need to make in our use of the Perkins funds, and are we using the funds at the college most effectively to assure the long term success of Programs of Study and our work with our regional high schools.

Element 4: Student Support Services

☒ A. Student organizations are an available program component and integrated into CTE programs of study instruction. The student organization structure provides leadership development opportunities that meet the following expectations:
- ☒ Instruction, Career Development and Assessment
- ☒ Community-Based Experiences
- ☒ Organizational Management and Administrative Experiences

☒ B. All CTE students will have informational guidance support and advising to assist them in progressing through a CTE program of study in an efficient and seamless manner (e.g. Pathway Templates, Education Plan and Profile, Career Information System).

☒ C. Programs comply with Title VI- Civil Rights Act of 1964; Title IX – Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; Vocational Education Programs Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, Sex, Religion, National Origin, Age or Disability; Title II of the Americans with Disabilities Acts of 1990.
- ☒ Appropriate access is provided for all students, including non-traditional and special populations.
- ☒ Program provides a non-biased and non-discriminating learning environment (race, color, national origin, gender and disability status).
- ☒ Program facilities provide physical access and instruction that accommodates students with disabilities including various learning styles (e.g. the use of visual, auditory, tactile, and kinesthetic teaching methods, and other appropriate forms of instruction).
- ☒ Program meets the needs of students for whom English is a second language.

☒ D. Based on the Program Design and instructional plan, each student will be able to:
- ☒ Identify the career path options he/she can follow to a chosen career;
- ☒ Receive consistent and informed messages about career and possible financial options for post-secondary education;
- ☒ Take ownership of their education through maintaining a current education plan and profile and/or portfolio, and
- ☒ Apply skills and traits in a variety of settings including student organizations.

Comments and additional information*:** Please address the questions for both the Secondary Partner and the Post-Secondary Partner found in the "Areas of Strength" and Priority Concerns" worksheet at the end of this section of the ***Readiness and Sustainability Tool:

SUCCESSES:

- To teach and give student leadership opportunities I have projects where designing and drawings are done in groups. They have semester projects, which may or may not be done with a partner. There are group contests. There are group assignments, like in land surveying.
- When guest speakers come to my classroom we always discuss careers and what it takes to enter these careers.
- All seniors at St Helens High School are required to take a course called Senior Projects. The main program that is used is the CIS program from the University of Oregon. The course is 1 semester long. The course is broken down into 4 main areas. It starts with learning about their personalities (1), then goes to career research (2), into schools of training scholarships and job related things like resumes (3), and then into a presentation of a project completed by the student (4).
- St Helens High School district complies with state mandates that allow students access to all programs regardless of race, color, sex, religion, national origin, age or disability.
- We work with the counseling department and Future Focus teachers to help students plan out their 4 year course at the High School. We cover various careers and research into them so that the students will be able to make good choices into their focus for the future. The counselors are knowledgeable about careers in the CTE area and direct students into what courses to take.

CHALLENGES:

- In our articulation with PCC the students have to register with PCC.
- Through the CIS program students learn what courses they may have to take in High School and Community College to receive the degree or certificate that they want.
- Students research the site (www.pcc.edu/pavtec/pathways) to find information about jobs that they would be interested in. They also go on to research what jobs are available on the job market now.
- If students complete the assignment I will know they have been successful in researching a career of their choosing.
- A concern that I have is to recruit more girls into the program.

Student Support Services Post-secondary Partners:

How will you work with recruiting and providing services for non-traditional, displaced homemakers, and other special population students for this specific POS?

As a standard for all CTE Programs, Portland Community College (PCC) is committed to providing equal access to all students through the removal of architectural and attitudinal barriers. All CTE programs at the college comply with a number of state and federal guidelines and Acts that require equal opportunities and access for all students. The Americans with Disabilities Act of 1990 (ADA) and the Amendments Act of 2008 is the primary driver of a lot of the decisions and policies with regard to the Disabilities Services Office.

The College's Disabilities Services Office ensures that students enrolled in CTE programs are provided specialized assistive technology services to accommodate disabilities in their CTE programs. Disability Access Services (DAS) is the district-wide department that provides the accommodations and services. Examples include adaptive equipment and computer technology, alternate media formatting (audio and electronic texts), in-class aides, media captioning, sign language interpreting and transcribing, and test accommodations.

All Career and Technical Education (CTE) programs at Portland Community College (PCC) recognize that promoting the successful participation and preparation of students in CTE programs that meet the non-traditional (NT) criteria is a priority. At the entry point of all CTE programs, students who fit the NT criteria are identified so that all levels of college resources (Perkins Student Resource Specialists, Tutoring Centers, Multicultural Centers, Women's Resource Centers, etc.) are aware that these students may need additional support in order to be successful in their chosen CTE program. Some of the students encounter few, if any, issues while others require a great deal of support to work through the academic, technical and social barriers. The greatest resources we have found are to align the students with others (mentors) in both the academic setting and workplace who, at one time, had chosen the same path and are now gainfully employed. These individuals are invaluable resources and offer a tremendous amount of support and encouragement on a personal, academic and technical skill level. PCC still struggles in successfully recruiting students for NT CTE fields. Aside from utilizing a number of the available resources available on a local, state and national level, we will also be doing more targeted recruitment from specific programs college-wide that are providing enhanced opportunities to targeted populations: Sylvania ROOTS Program, CAMP (College Assistance Migrant Program), Workforce Network, Talent Search, Gateway to College, MOTT (Moving On Toward Tomorrow), etc. Perkins funding is utilized to identify students who show interest in NT CTE programs at all levels of academic preparation to make sure they are able to quickly access CTE program personnel and other college resources to guarantee that the connections are made early enough to improve chances of CTE program success.

The Women's Resource Centers at Portland Community College are also an additional avenue for special population students (single parents and displaced homemakers) interested in CTE programs to seek resource information and support both on campus and in the community.

Single parents, displaced homemakers, and women returning to college can take advantage of four programs offered through the college's Women's Resource Centers: Project Independence, New Directions, Career Transitions and Life Tracks. The programs are tuition free and provide a variety of skills needed to becoming employed in a family-wage job. The primary goals of the programs are self sufficiency through college preparedness. Students gain access to a variety of educational and training opportunities on the road to becoming economically self sufficient. On-going support is offered after completion of the class. This is the aspect of the program that receives Perkins funding. On-going activities provided might include academic advising, placement assistance, student support services, and community resource referrals. Students are continuously helped with identifying and removing barriers, which impede their success. Classes are offered fall, winter and spring terms.

How will you provide advising and tutoring services to students in this POS?

Portland Community College uses the majority of its Perkins funding on 19 staff who serve as advisors and employment specialists in the college's CTE programs. Students entering CTE at the college are able to access these highly trained and specialized advisors for all aspects of their advising needs. Aside from general

advising needs, the staff helps students maneuver the financial aid process, resolve child care and housing issues, seek professional services through college or outside resources for medical and mental health needs, and arrange for group or individual tutoring.

Welding has become a more comfortable area of growth for women through PCC's welding department's expansion of individualized course offerings and the sculpture welding course. These courses get women in the door, and once they get in the shop and try welding, they realize that they can do "this welding stuff," and many of them decide to make it a career and not just an art form or a hobby.

Welding also has a career female welder instructor who has done the job in much more difficult circumstances than in present times, and she serves as a resource and an inspiration to our female students.

There are women in all three AAS degrees of Building Construction Technology. However, the physical nature of the hands-on construction somewhat limits how many women enter that field while many women are more comfortable in the design/build/remodel area. The Construction Management degree is drawing a number of women into a career that tends to be more lucrative and less physically taxing. Students have opportunities through the student organizations they've formed to do volunteer team projects out in the community with professionals, providing female students a great opportunity taking a turn at being a project manager at a site. This is also a great way for students to make professional contacts in their field.

Addendum D: Student Support Services Documentation

Directions: Create an Addendum D folder for properly identified examples of: student support services documentation.

Required documentation for Element 4: Please provide in Addendum D (see end of Application)

Give examples (documents, other evidence) of Comprehensive Guidance and Counseling that students will receive. These documents may include:

- Marketing materials for recruitment of non-traditional students to CTE courses
- Tools or skill inventories used to guide course/CTE POS selection
- **Secondary partner**: Documents illustrating relation to Oregon Diploma requirements:
  1. Academic applications (Extended Application)
  2. Education Plan and Profile
  3. Essential Skills
  4. Counseling and guidance materials
- **Post-secondary partner**: Documents illustrating:
  1. Recruitment and servicing of non-traditional CTE students, displaced homemakers, and other special population students
  2. Advising and tutoring practices and procedures

Element 5: Professional Development

☒ A. Professional development helps teachers and administrators develop and improve standards-based curriculum and learning experiences that address All Aspects of the Industry.
☒ B. Research and training is provided to help develop appropriate and useful assessment tools and strategies.
☒ C. Training and guidance is provided to help improve instructional delivery methodology that helps improve student performance and skill acquisition.
☒ D. Secondary teacher licensure is appropriately aligned with the CTE Program of Study and courses in the CTE POS fall within the appropriate NCES codes for that licensure.

Comments and additional information: Please address the questions for both the Secondary Partner and the Post-Secondary Partner found in the "Areas of Strength" and Priority Concerns" worksheet at the end of this section of the ***Readiness and Sustainability Tool***:

SUCCESSES

- We have review grading for State Writing test
- Math department works with students to be successful in State test.
- Administration has set time aside on Friday for professional development for special topics.
- Skills USA have provided helpful assessment of students' skills.
- TSPC shows proper course credentials.
- I am doing this CTE Program of Study Application.
- I will know that these strategies work by the test scores from the State.

CHALLENGES

- The challenge is to work the writing assessment process into the curriculum.
- More specific professional development on how to incorporate Literacy into CTE.
- I will know that I am successful when the State test scores increase.

Since 2009-2010, there has been a continued and increased emphasis on CTE staff and instructors participating in professional development opportunities related to the integration of academics and technical skills into CTE Programs of Study. Appropriate professional development opportunities have been identified and provided to CTE staff and instructors related to their professional development plans and aligned with the professional development needs and opportunities provided by our secondary partners.

PCC supports and promotes its mission, goals and values by continually developing the professional and personal capacity of all members of the community through the efforts of the Office for Staff and Organizational Development. The District Staff Development Office supports PCC's Staff Development Mission by:

- Advocating, promoting, communicating, and coordinating college-wide staff development opportunities
- Funding specific strategic staff development initiatives and programs
- Providing opportunity for professional and career growth to employees

Certification of Assurance

Directions: After filling in all the appropriate fields in this form, print out a copy of this Certification of Assurance page and acquire all the appropriate signatures. All signatures must be on one form, demonstrating the collaboration between all institutions participating in this CTE Program of Study. Mail complete, signed Assurance form to Ilene Spencer at: ODE, 255 Capitol St. NE, Salem, OR 97310

Name of CTE POS	Drafting Technology
Name of Secondary School	Saint Helens High School
Name of Community College	Portland Community College

SECONDARY LOCAL SUPPORT and CERTIFICATE OF ASSURANCE	I have reviewed this program application document for clarity, completeness and adherence to program quality standards, and support its approval. I agree that the CTE program area requirements for secondary CTE programs, including appropriate CTE certification for teachers, the rules and regulations for Public Law 101-392, and the requirements contained in the Oregon State Plan for Career and Technical Education will be complied with in the operation of the CTE programs and services offered by the district or through contract between the district and other agencies, institutions, or individuals. I agree to furnish CTE program data as requested by the Oregon Department of Education.	
School District Administrator Signature		**Date:**
Administrator's Name	Andy Croley	

LOCAL SUPPORT and CERTIFICATE OF ASSURANCE	The program advisory committee has been involved in the design and development of this program.	
Advisory Committee Signature		**Date:**
Advisory Committee Member's name	Neil Ford	

POST-SECONDARY LOCAL SUPPORT AND CERTIFICATE OF ASSURANCE	This community college has been involved in the design and development of this CTE program of study and agrees to continue collaboration meeting all 4 Core including alignment and articulation and reliable and valid technical skills assessment.	
Community College Administrator's Signature		**Date:**
CC Administrator's Name	Dean, Kendra Crawley	

For Regional Coordinator Use Only

Recommended Status:

☐ **RECOMMENDED FOR STATE APPROVAL (Perkins Eligible) Expiration Date:** ____

☐ **DISAPPROVED (and returned for revision)**

_____ **Date:** ____

Regional Coordinator Signature

For ODE/OCCWD Use Only

Approval Status:

☐ **FINAL ODE APPROVAL (Perkins Eligible)** **Expiration Date:** ____

☐ **FINAL CCWD APPROVAL**

_____ **Date:** ____

EII Education Specialist Signature

_____ **Date:** ____

OCCWD Education Specialist Signature