

Career and Technical Education Program of Study Application 2017 Version (Full Application)

Directions—please enter information into ALL the fields in this application. If you have technical problems with this application, contact Ron Dodge POS.Application@state.or.us.
(For detailed information on how to complete this application consult the [Guide to Using the Oregon CTE Program of Study Application 2017](#).) **DEADLINE for submission: June 30, 2017; (Early Bird: April 28, 2017)**

CTE POS—Title:	Manufacturing
Career Area:	Industrial Engineering Systems--IE
Cluster Area (& appropriate secondary CTE licensure):	IE--Manufacturing
Focus Area (if applicable):	
Secondary CIP Code: (Link to CIP website)	480000 (6 digit)
Community College CIP Code: (Link to CIP website)	14.3601 (6 digit)

Secondary School Name:		Forest Grove High School
Secondary School District:		Forest Grove School District
Secondary School ID Number:		1134
Secondary Teacher Name	Email	Current CTE License
Jami Duyck (Lead Teacher)	jduyck@fgsd.k12.or.us	IES--Manufacturing

Secondary Technical Skill Assessment (TSA): Use the code from this table for your selected TSA.	2AREG014
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CC Technical Skill Assessment (TSA): Use the code from this table for your selected TSA.	2AREG052 or 2AREG053
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Primary Oregon Community College Name: (Contact POS.Application@state.or.us to add multiple colleges)	Portland Community College
College Point of Contact:	PCC Sally Earll sally.earll@pcc.edu
Community College CTE Program Title(s):	Machine Manufacturing Technology
Community College Award:	Associate of Applied Science

Visual/Roadmap: (Insert link, or identify location where sample of visual can be found)	https://drive.google.com/drive/folders/0B2MMRvjYf1pANmc4a2t3Tkh0d1k or https://drive.google.com/drive/folders/0B2MMRvjYf1pANmc4a2t3Tkh0d1k
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Regional Coordinator/Contact:	2A--Beth Molenkamp elizabeth.molenkamp@pcc.edu
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CTE Teacher: Submit complete electronic application materials to your CTE Regional Coordinator.

Regional Coordinator: Email application and addenda to this mailbox-- POS.Application@state.or.us , or follow an alternative process described in Step 8 of the **Submission Process** on the last page of this application.

DEADLINE for submission: June 30, 2017

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CTE POS Course Lists—Secondary

Directions:

1) Please list below the CTE Program of Study Secondary Courses in which the instructor will:

- Teach with intent and purpose the CTE POS knowledge and skills identified in the CTE POS Skill Set, and
- Assess and record student achievement of those standards

2) Mark as “TSA” those courses that are necessary for students to take before they are required to take the Technical Skill Assessment for this POS.

Note: Additional CTE courses may be listed (and supported with Perkins funds) if they support the identified skill set; but do not mark those as “TSA” Required”

Secondary Core CTE Courses (Please be complete; this information will be entered into the CTE Program Update database and all fields are required)

TSA* Required	School Course #	Secondary Course Name	# of Credits	5-digit NCES Code	Course Description (brief) (boxes below will expand)	Articulating College (if applicable)	College Course #	College Course Name
<input checked="" type="checkbox"/>	13202 1	Metals 1	.5	13002	Metals I is a credit by proficiency course designed to provide students with a general exploratory experience in metalworking and a basic knowledge of related careers. This is accomplished through the use of hand tools, machines and materials that are basic to the metals industry. Projects will be used as a vehicle to learn the use of tools and machines. Students must provide their own protective clothing and follow all safety rules in order to insure the safety of all persons involved.	Select College		
<input checked="" type="checkbox"/>	13202 2	Metals 2	.5	13052	Metals II is a credit by proficiency course designed to offer students occupational opportunities in the metals trades and related career fields. Welding skills with 7024 electrodes, MIG and TIG will be used on various types of material, both ferrous and non-ferrous as well as plasms cutting. Students must provide their own protective clothing and follow all safety rules in order to insure the safety of all persons involved. PCC credit is available.	Portland Community Col	WLD 111	WLD 111: SMAW 7024 and OAC

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<input checked="" type="checkbox"/>	13202 3	Metals 3	.5	13052	Metals 3 is an introductory into machining with basic operation and safety of lathe and vertical milling operations.	Select College		
<input checked="" type="checkbox"/>	13202 4	Metals 4	.5	13053	Metals 4 is a capstone class where students design, plan, construct, and finish a personal project using the skills they developed through the program. The technical skill assessment can be completed in this course.	Portland Community Co	WLD 111	SMAW 7024 and OAC
<input type="checkbox"/>						Select College		
<input type="checkbox"/>						Select College		
<input type="checkbox"/>						Select College		
<input type="checkbox"/>						Select College		
<input type="checkbox"/>						Select College		
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<input type="checkbox"/>						Select College		
<input type="checkbox"/>						Select College		

**TSA required—Technical Skill Assessment required course—required courses that, when completed, trigger TSA assessment eligibility for the student*

CTE POS Course Lists—Post-Secondary

Post-secondary Core CTE Courses:

- Enter the name of the college program that is the postsecondary component of this POS
- Select the highest level of this component offered by the college
- List only the courses included in the Course/Skill Set crosswalk matrix

Name of Certificate or Degree Program		Manufacturing	
Highest award available in Program:		Select certificate or degree	
College Course #	Post-Secondary Course Name	Number of Credits	Accelerated College Credit/College Now?
MCH 100	Machine Too Basics	1	<input type="checkbox"/>
MCH 105	Blueprint Reading I	1.5	<input type="checkbox"/>
MCH 135	Basic Measuring Tools	1.5	<input type="checkbox"/>
MCH 120	Machine Shop Math	2	<input type="checkbox"/>
MCH 115	Geometric Dimensions and Tolerancing	3.5	<input type="checkbox"/>
MCH 125	Speeds and Feeds	1	<input type="checkbox"/>
MCH 130	Machine Shop Trigonometry	2.5	<input type="checkbox"/>
MCH 150	Precision Measuring Tools	3.5	<input type="checkbox"/>
MCH 205	Vertical Mill Machines and Operations	4	<input type="checkbox"/>
MCH 280	Cooperative Education	5	<input type="checkbox"/>
MCH 272	Mastercam Level I	4	<input type="checkbox"/>
MCH 278	CNC Operation - Mill	4	<input checked="" type="checkbox"/>
WLD 111	Shielded Metal Arc Welding		<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>

Course-to-Skill Set Crosswalk/Matrix

Please use one of the Excel spreadsheets posted online at (<http://www.ode.state.or.us/search/page/?=3584>) (or use one you've created locally) to crosswalk the identified skill set to the listed secondary and post-secondary courses.

- You should use the same matrix for both secondary and post-secondary courses.
- It is only required to map courses to the standards (Knowledge and Skill Statements); it is not necessary to map the performance indicators, duties, or tasks.
- Be sure to identify the selected skill set in your matrix, the secondary and postsecondary components.
- If your selected skill set is not from the [Oregon Skill Sets](#) website, please identify its origin and how it was industry validated.

☒ **Secondary:** (check this box to indicate secondary course-to-skills crosswalk is complete and attached)

☒ **Post-secondary:** (check this box to indicate post-secondary course-to-skills crosswalk is complete and attached)

CTE POS Design Elements

There are five Elements necessary for a robust Career and Technical Education Program of Study—all are critical to being State approved in Oregon

GENERAL DIRECTIONS FOR COMPLETING THE ELEMENTS SECTIONS:

- In the first part of each Element section, click on each checkbox for criteria that applies to your Program of Study
- For those criteria that don't apply at this time, explain in the Comments box at the end of the section why those criteria are not met and how you will address them before the program is up for revision (POSs are usually approved for four years) Programs that do not meet all elements at the time of application may be temporarily approved as a "State Recognized Program" (SRP) until missing elements are completed; SRP's can convert to POS anytime and be immediately eligible for Perkins funds, per local grant administrator's budget.
- In the second part of each Element section, there is the expandable space provided for Comments, as mentioned above. Use this box to explain missing check marks in the criteria statements above, point out strengths of your program, or identify special circumstances you need to have considered during ODE review of this application
- If you already have documents or files that help demonstrate the strength or potential of each Element, simply attach those documents or files in the appropriate Addendum folder, or provide links to online documents, when submitting this application, rather than write lengthy responses in the Comment box. (Consult the [Guide to Using the Oregon CTE Program of Study Application 2017](#) for details about how to use Addenda if submitting supporting documents or files.)

Element 1: Standards & Content

Standards and Content are the foundational elements for designing and improving Perkins-eligible Programs of Study

This POS design includes:

- ☒ A. Relevant, rigorous technical skill standards-based content, including or 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. 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. A systemic approach to instructional delivery of academic and technical knowledge and skills where student performance is demonstrated through valid and reliable technical skill assessments (TSA) aligned to industry standards
- ☒ E. A plan for continuous improvement of program design and instructional delivery that provides the opportunity for each CTE POS student to:
 - ☒ Meet diploma requirements, post-secondary entry requirements, and/or certificate/degree requirements
 - ☒ Demonstrate mastery of academic and technical content that is aligned with industry standards
 - ☒ Apply learning through authentic experiences
 - ☒ Develop skills and build confidence to compete in high wage, high skill, and/or high demand occupations.

- **Directions for using the Comment box**—Expandable space is provided for comments. This Box is intended for explanations for missing checks above, or notes regarding program strengths worth consideration during POS review. If you already have documents or files that do this more quickly, simply attach those documents or files (or links to them) to this application in an appropriate Addendum folder. (Consult the [Guide to Using the Oregon CTE Program of Study Application 2017](#), for more details.)

Please address these questions through your comments in **Element 1 Comment Box** below (or attach documentation in an appropriately identified file/folder):

- Address any unchecked box above
- Explain how this POS is aligned with challenging academic standards at the HS and CC levels
- Identify those who participated in the decision of which skill set to use for this POS
- Who participated in the crosswalk of the skill sets to HS and CC courses

Element 1 Comment Box: The metals program is designed to expose students to a wide range of metal working applications. Aligning the welding portion, and main focus of the program with WLD 111 gives students an entry point into the welding program at PCC after high school. The machining portion opens the door for students interested in machining to PCC's machining program. Students

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develop projects during classes which are authentic and interesting for student engagement. Welding and machining are listed as high-wage, high-skill, and high-demand jobs. Course content is also reviewed by the advisory committee to ensure industry standards are addressed.

The crosswalk was designed by high school and community college partners.

Element 2: Alignment and Articulation

Alignment and Articulation are key to getting Program of Study partners working together to build career pathways for CTE students

The alignment of this POS includes:

- ☒ A. A unified, cohesive sequence of content among secondary and post-secondary partners contained in a non-duplicative sequence of courses or learning experiences.
- ☒ B. Alignment of content between secondary and post-secondary education partners may include course articulation or other ways to acquire post-secondary education credits (e.g. Oregon's Credit for Proficiency, Dual Credit, Oregon Transfer credit, etc.).
- ☒ C. Articulation agreements are developed, implemented and supported at the institutional level to ensure long-term sustainability and cross-sector cooperation.
- ☒ D. Based on the program design and instructional plan, each student will:
 - ☒ 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 career.

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Please address these questions through your comments in **Element 2 Comment Box** below (or attach documentation in an appropriately identified file/folder):

- Address any unchecked box above
- Briefly describe the level of alignment and/or articulation that exists for this POS (you may also identify non-Perkins eligible alignments that exist with private schools, universities, etc.)
- Briefly describe the alignment and/or articulation activities that have occurred, and who participated from HS and CC levels

Element 2 Comment Box: The manufacturing program at Forest Grove High School works closely with the welding and machining programs at Portland Community College. We articulate WLD 111 in Metals 2 which allows students to attend PCC after graduation and skip the wait list for entry into the program because they have returning student status rather than new student. We have acquired numerous pieces of equipment and consumables for the program because of the close relationship we have with the PCC welding program. The summer welding program offered by PCC has been vital to the expansion and improvement of the manufacturing program at Forest Grove by adding additional welding processes.

Element 3: Accountability & Evaluation

Accountability and Evaluation are core elements for Perkins eligibility—they provide data illustrating the value of CTE to students' future plans

In this POS design:

- ☒ A. Performance will be measured against the Perkins-required performance measures as described in Perkins IV Measurement Definitions identified in Oregon's State Plan (re: Data Collection)
- ☒ B. Business, community and education partners (specifically, an Advisory Committee) participate in CTE Program of Study design and development, including:
 - ☒ Assistance in evaluating program vision, goals and priorities
 - ☒ Validation of industry skill standards for curriculum content and technical skill assessment, where appropriate
 - ☒ Participation in the CTE teacher recruitment, instructor appraisal process, and ongoing faculty professional development
- ☒ C. Perkins performance data is used for data-driven, CTE program of study design and improvement decisions
- ☒ D. Students have the opportunity to learn in a contextual career related environment that allows them to:
 - ☒ Monitor their own progress through their demonstration of attaining technical and academic skill standards
 - ☒ Demonstrate their technical and academic proficiency in meaningful ways, e.g., Technical Skill Assessment, etc.
 - ☒ Adapt their program to meet personal goals based on industry requirements and performance outcomes

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Please address these questions through your comments in **Element 3 Comment Box** below (or attach documentation in an appropriately identified file/folder):

- Address any unchecked box above
- Identify the data used in designing this POS, and the effect that the data had on the design
- Identify the members of the Business Advisory Committee
- How will the POS be evaluated, and by whom?
- How will you know if the POS is successful?
- What process will you use to decide any changes that need to occur because of the POS evaluation?
- **Required:** List the TSA(s) code used for this POS on Page 1 ([ODE approved list](#))

Element 3 Comment Box:

This program of study was developed based on the past 10 years of classroom experience, community member feedback, industry partner feedback, and community college articulation. The advisory board is made of the high school instructor, high school administrator, local business owners/managers, articulated PCC program faculty, and local industry professionals. The program of study will be evaluated by the state and the advisory committee. The program of study will be successful if the students completing the program are ready to gain further education or employment in the manufacturing field if they choose to do so. With feedback from the advisory committee, the program of study will be updated as local industry needs change. As program growth and funding occur, the manufacturing program will expand to meet the needs of students and industry, so students are prepared to enter the industry. The TSA was locally produced for our manufacturing program: 2AREG014
<http://www.ode.state.or.us/search/page/?=3230>

Advisory Committee members:

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Glen Spiesschaert, Spiesschaert Enterprises, Inc.
Jim Hertel, Duych Machine
Joh Cirlincione, RDF&P
John Knox, Knox Farms

Element 4: Student Support Services

Student Support Services include the ways that all students are made aware of the career and education opportunities available in the CTE career Pathway that is the focus of this POS.

In this POS design:

- ☒ A. 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. Career Pathway Templates, Education Plan and Profile, POS visual guides, Career Information System, etc.).
- ☒ B. 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;
- ☒ C. Compliance is evident with Federal regulations, including 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; therefore, this POS provides:
- ☒ Appropriate access for all students, including non-traditional and special populations.
 - ☒ A non-biased and non-discriminating learning environment (with respect to race, color, national origin, gender and disability status).
 - ☒ Program facilities with 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).
 - ☒ Responsiveness to the needs of students for whom English is a second language.
- ☒ D. Opportunities for structured student leadership are a program component and integrated into CTE POS instruction. This POS integrates either:
- ☒ 1) One of the state chartered CTSO's: ☐ DECA, ☐ FBLA, ☐ FCCLA, ☒ FFA, ☐ FNRL, ☐ HOSA, or ☐ SkillsUSA **or**
 - ☐ 2) Another local or national organization that meets the criteria listed in the ODE [Student Leadership criteria](#) document.
 - The locally developed student organization or experience provides leadership development opportunities that meet the following expectations (see details in linked document above):
 - ☐ Context related instruction, career development , and practical assessment
 - ☐ Community-based learning experiences
 - ☐ Organizational management and administrative experiences

➤ **Directions for using the Comment box**—Expandable space is provided for comments. This Box is intended for explanations for missing checks above, or notes regarding program strengths worth consideration during POS review. If you already have documents or files that do this more quickly, simply attach those documents or files (or links to them) to this application in an appropriate Addendum folder. (Consult the [Guide to Using the Oregon CTE Program of Study Application 2017](#), for more details.)

Please address these questions through your comments in **Element 4 Comment Box** below (or attach documentation in an appropriately identified file/folder):

- Address any unchecked box above
- Briefly describe the POS-specific student support services that HS and CC students will receive in this POS that will support their success in the courses
- How will those student support services help inform and prepare HS and CC students for their next educational and career steps?
- Briefly describe the specific efforts that will be made to recruit all types of students into this POS (both HS and CC levels)
- Briefly describe any student leadership opportunities that will be available for both HS and CC

Element 4 Comment Box: Forest Grove High School has a high level of commitment to student support services. We have a dedicated instructional assistant to assist students with disabilities, English language barriers, special populations in the manufacturing program, and we make recruitment efforts specifically for non-traditional students. Recruitment posters, in class discussion, and our career center help inform and recruit students into the manufacturing program. Students have access to the course curriculum guide for educational and career planning, as well as a planning program called Naviance which supports career exploration and preparation. We have a

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college and career center where students can get information on careers, scholarships, internships, and apprenticeships.

Forest Grove High School Curriculum Guide: can be found in the counseling center and on the school website

Naviance: <https://connection.naviance.com/family-connection/auth/login/?hsid=fghs>

Recruitment posters are available in classrooms and throughout the school

PCC student handbook and information is given to every dual credit student, available in classroom and at PCC.

Students at Forest Grove High School have the opportunity to be involved in the Forest Grove FFA Chapter, which is a chapter of the National FFA Organization.

The Chapter Program of Activities is located in the Ag Office, and more info can be found at <https://www.ffa.org/home> and <http://oregonffa.com/>

1. Relevant Links:

PCC WEBSITES OF PROGRAMS <http://www.pcc.edu/programs/>

MACHINE MANUFACTURING TECHNOLOGY WEBSITE <http://www.pcc.edu/programs/machine-manufacturing/>

MACHINE MANUFACTURING TECHNOLOGY COOPERATIVE EDUCATION

<http://www.pcc.edu/catalog/default.cfm?subjectCode=MCH&courseNumber=280&fa=dspResults>

MACHINE MANUFACTURING TECHNOLOGY CATALOG

<http://catalog.pcc.edu/programsanddisciplines/machinemanufacturingtechnology/>

MACHINE MANUFACTURING TECHNOLOGY ADVISING GUIDE

<http://www.pcc.edu/programs/mechanical-engineering/documents/advising-guide.pdf>

GRAD PLAN <http://www.pcc.edu/resources/advising/grad-plan/>

ADVISING SERVICES <http://www.pcc.edu/resources/advising/>

COUNSELING SERVICES <http://www.pcc.edu/resources/counseling/>

CAREER COUNSELING <http://www.pcc.edu/resources/careers/resource-centers/career-exploration.html>

CAREER CENTER <http://www.pcc.edu/resources/careers/resource-centers/>

START LAB <https://www.pcc.edu/resources/orientation/documents/orientation-schedule.pdf>

ESOL PROGRAM ADVISORS <http://www.pcc.edu/prepare/esol/sylvania/>

ESOL PROGRAM <http://www.pcc.edu/prepare/esol/>

INTERNATIONAL ADVISORS <http://www.pcc.edu/about/international/>

DISABILITY SERVICES <http://www.pcc.edu/resources/disability/>

OFFICE OF AFFIRMATIVE ACTION AND EQUITY <http://www.pcc.edu/about/affirmative-action/>

DIVERSITY TRAINING <http://www.pcc.edu/about/affirmative-action/training.html>

TRANSFER INFORMATION <http://www.pcc.edu/programs/university-transfer/>

SOU BAS BUSINESS MANAGEMENT TRANSFER INFORMATION

<http://www.pcc.edu/programs/university-transfer/transfer-guides/SOUBAS.html>

OIT BAS TECHNOLOGY AND MANAGEMENT TRANSFER INFORMATION

<http://www.oit.edu/distance-education/programs/technology-management>

OREGON TRANSFER GUIDES <http://www.pcc.edu/programs/university-transfer/transfer-guides/>

OUT OF STATE TRANSFER GUIDES <http://www.pcc.edu/programs/university-transfer/transfer-guides/out-of-state.html>

2. Technical Skill Assessment: <http://www.ode.state.or.us/search/page/?id=3230>

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3. All expectations have been met. The following information provides supporting evidence for the Expectations: Student Support Services per each original statement.

A. Students receive information, guidance, and/or counseling specific to this CTE Program of Study, including career and job market information, and college program information. Evidence: Students in the Machine Manufacturing Technology program at PCC have a specialized advisor who is knowledgeable about PCC systems as well the nuances of the field and the program. The PCC website shows the many diverse CTE programs available as well as how to get started in one, a career center as well as offers advising and career counseling services.

B. Students participate in CTE POS specific career related learning experiences or related work experience. Evidence: Students are required to take MCH 280 CE: Machine Technology (4 cr.) to meet their required degree elective requirements. This is an internship experience that is offered in a real world setting.

C. Students' education planning is developed around information specific to this CTE Program of Study. Evidence: Students and advisors work with the GRAD PLAN program to create a personalized degree plan based on the students' level of entry at PCC and the program requirements. In addition, the catalog of programs and degrees offers guidance on educational planning.

D. Extended application projects or capstone experiences are developed within the context of this CTE Program of Study. Evidence: Students complete a series of extensive applied projects throughout the program starting in their first year. They will experiment and understand a variety of materials as well as complete projects from the preplanning phase through completion.

E. Written information is provided to all students in this CTE Program of Study informing them of available articulated college (or university) credits, dual credit, expanded options, scholarships, and other postsecondary opportunities. Evidence: PCC has extensive and detailed information available in their transfer website and in the transfer guides that are available showing the paths of articulation from PCC CTE programs to university programs. The program advising specialist reaches out to students through email, class visits and one-on-one meetings about transfer options, scholarships, extra-curricular opportunities, and available college resources. .

F. Efforts are made to provide information to students who are considered non-traditional by gender to the occupations resulting from this CTE Program of Study. Evidence: PCC is committed to reaching out to all students regardless of their gender. The CTE program advisors are empowered to reach out to high school students through high school visits, annual student preview day, and career fairs. In addition, the program participates biennially in the NW Career Youth expo and participates in the event "Girls in Technology," which is aimed solely at high school girls and CTE/technology programs.

G. Access and recruitment to courses in this CTE POS are provided for all students including, but not limited to all Oregon and federal protected classes. Evidence: PCC is firmly committed to creating a diverse student body through continued and regular education of staff and faculty as well as by offering ongoing support to students and staff through the Office of Affirmative Action and Equity.

H. Accommodations are made to assure students with special needs can participate in this CTE POS. Evidence: The Disability Services office at PCC is able to help accommodate students with documented disabilities receive services they may qualify for.

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I. Assistance is provided for students wishing to participate in this CTE POS for whom English is not their native language. Evidence: Most CTE programs require an English and Reading level minimum placement of WR 115 and/or RD 115. PCC offers ESOL courses for students who wish to improve their English language proficiency prior to entering into their CTE program of choice. For students who are studying on an international visa, international advisors that specialize in helping non-native speakers enter into the ESOL program are available.

Postsecondary TSA: 2AREG052 or 2AREG053

Secondary TSA: 2AREG014

Element 5: Professional Development

Professional Development for POS teachers should be designed on the needs identified by data, and should focus on continuous improvement of student opportunities within this POS.

The planned professional development for this POS will:

- ☒ A. Connect to teacher effectiveness evaluations.
- ☒ B. Help teachers and administrators develop and improve standards-based curriculum and learning experiences that promote the integration of coherent and challenging academic content and industry-based technical standards, including opportunities for the appropriate academic and CTE instructors to jointly develop and implement classroom-based curriculum and instructional strategies.
- ☒ C. Include professional development that is high quality, sustained, intensive, and focused on instruction designed to increase the academic knowledge and understanding of industry standards
- ☒ D. Encourage applied learning methodology that contributes to the academic and CTE knowledge of the student
- ☒ E. Provide research and training opportunities that help teachers develop appropriate and useful assessment tools and strategies.
- ☒ F. Provide training and guidance geared to help improve instructional delivery methodology that helps improve student performance and skill acquisition, particularly skills needed to work with and improve instruction for special populations.
- ☒ G. Assist teachers in accessing and utilizing CTE accountability data, student achievement data, and data from assessments

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Please address these questions through your comments in **Element 5 Comment Box** below (or attach documentation in an appropriately identified file/folder):

- Address any unchecked box above
- Briefly describe how PD will be planned and implemented, based on the needs of the POS
- Briefly describe any planned joint PD ventures for HS and CC teachers, as well as regional trainings

Element 5 Comment Box:

Forest Grove School District provides professional development opportunities yearly to improve student engagement, collect and review student data, teacher performance improvement, as well as offering time for Professional Learning Communities. PLCs allow teachers of similar subject areas to discuss student performance, compare student data, and improve instructional practices for increased student success.

PCC offers yearly articulation meetings to provide feedback and evaluation of manufacturing programs and how to improve and adjust to meet industry standards.

PCC offers summer workshops for instructors to improve and develop industry relevant skills and knowledge to be able to pass those skills and knowledge onto to students.

OATA offers fall and summer conferences for teachers including sessions and curriculum specific to manufacturing.

Advisory board meetings allow industry partners to share apprenticeship, internship, and job shadow opportunities, as well as support and recommendations for instructor development.

CTE Teacher: Submit complete electronic application materials to your CTE Regional Coordinator.

Regional Coordinator: Email application and addenda to this mailbox-- POS.Application@state.or.us, or follow an alternative process described in Step 8 of the **Submission Process** on the last page of this application. **DEADLINE for submission: June 30, 2017**

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.** Email completed COA with ALL signatures to POS.Application@ode.state.or.us.

Name of CTE POS	Manufacturing
Name of Secondary School	Forest Grove 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 109-270, 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.	
Secondary School District Administrator Signature		Date: 3/6/17
Administrator's Name	Tami Erion, Vice Principal	

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: 3/6/17
Advisory Committee Member's name	Glen Spiesschaert	

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 5 Core Elements, especially alignment and articulation and reliable and valid technical skills assessment.	
Community College Administrator's Signature		Date:
CC Administrator's Name	Sally Earll	

For Regional Coordinator Use Only	
Recommended Status: <input type="checkbox"/> RECOMMENDED FOR STATE APPROVAL (Perkins Eligible) <input type="checkbox"/> DISAPPROVED (and returned for revision)	
Regional Coordinator Signature	Date: _____

For ODE Use Only	
Approval Status:	
<input type="checkbox"/> FINAL STATE APPROVAL (Perkins Eligible)	Expiration Date: _____
Education Specialist Signature	Date: _____

The CTE brand logo, brand-positioning, theme, and brand extensions are the property of NASDCTEc.

Submission Process

Instructions

Submit complete electronic copies of the application materials by following this procedure:

1. **Do not send PDF applications.** Please send in original Word format.
2. Be sure you are using the correct year's application from [ODE's website](#).
3. Create a file (main folder) for storing all documents to be submitted
4. Title the folder using the name of the secondary school, the name of the Program of Study, and the year of submission, e.g., "OregonTownHSAccounting2016."
5. Create subfolders clearly named for each Element's Addendum that you are including with the application, e.g., "OregonTownHSAccounting2016Addendum1," "OregonTownHSAccounting2016Element1," or "OregonTownHSAccounting2016StandardsContent."
6. If submitting unique documents for individual schools in a Regional Application, create subfolders for each school within the appropriate Element's Addendum folder, e.g., "OregonTownHSAAddendum1."
7. Place the completed POS Application and a scanned copy of the completed Assurance document in the main folder; put any other documents included with the application in their appropriate subfolders. (Please name documents and folders so that they are clearly identified.)
8. Each application needs to include a completed Assurance page with all signatures included on one page—please, no duplicate Assurance pages with partial signatures.
(For Regional Programs of Study, however, each secondary institution will need to have its own Assurance page; for those Regional applications, please secure Community College signatures first, then photocopy for each secondary partner and acquire secondary signatures; then scan and place all originals in the main POS folder with the application.)
9. Please be sure all required documents, links, and examples are in their appropriate folders before performing Step 8.
10. Prepare files for submission:
 - a. Submit each POS application main folder with its subfolders one POS at a time.
 - b. Use the electronic download process using ODE's FTP portal. Go to the ODE Secure File Transfer site (<https://district.ode.state.or.us/apps/xfers/>) and follow the online directions for sending your POS folder to POS.Application@state.or.us. For technical help with this procedure, call Kenzie Mozejko—503-947-5636.
 - c. Alternatively, you may save folders on a Jump Drive or CD-ROM and send to ODE, in care of: Kenzie Mozejko, Oregon Department of Education, PSB 2nd Floor, 255 Capitol St. NE, Salem, OR 97310.

CTE Teacher: Submit complete electronic application materials to your CTE Regional Coordinator.

Regional Coordinator: Submit application and addenda using the FTP process described in 10 above, to this mailbox:

POS.Application@state.or.us). (Alternatively, using Step 10(c) above, a jump drive or CD ROM can be used to send files to ODE.)

DEADLINE for submission: June 30, 2017

Early Bird deadline (assures feedback before teachers leave for summer): April 28, 2017

(You may delete this page before submitting this application.)