GREEN-Focused
CTE PROGRAM OF STUDY

Statewide Program of Study

Sustainable Building
Oregon Team

Secondary Perspective

Marybeth Stiner
Portland Public Schools

Programs of Study

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

National Framework

1. Legislation and Policies
2. Partnerships
3. Professional Development
4. Accountability and Evaluation Systems
5. College and Career Readiness Standards
6. Course Sequences
7. Credit Transfer Agreements
8. Guidance Counseling and Academic Advisement
9. Teaching and Learning Strategies
10. Technical Skills Assessments

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Oregon's Framework

1. Content and Standards
2. Alignment and Articulation
3. Accountability and Assessment
4. Student Support Services
5. Professional Development

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Transition in Portland Schools

- Transition from CTE Approved Programs (Perkins III) to CTE Approved Programs of Study (Perkins IV)
- Years 1 and 2 – Develop one approved program of study per high school building receiving Perkins funding
- Year 3 – Develop approved Programs of Study for all district Business, Health Sciences, and Human Resources programs

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Transition in Portland Schools

- Year 4 – Develop approved Programs of Study for all Industrial and Engineering Systems programs
- Year 5 – Develop approved Programs of Study for all Arts and Communications and Natural Resources programs

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Professional Development

- Focused regional collaboration with Portland Community College
- General CTE district development of POS framework elements

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Regional Collaboration

- Program alignment and articulation
  - Roadmaps
- Reserve grant targeted funds
  - Program of Study “101”
  - Alignment of standards
  - Technical skill assessment
  - Student support services

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District Development

- Alignment of course/program content with academic standards
- Alignment of course/program content with industry standards
- Research on technical skill assessment
- Integrating writing and reading in CTE lessons
- Accessing appropriate instructional technology

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Community College Perspective

Todd Sanders
Portland Community College

Portland Community College's Sustainable Training for Technical Educators

National Science Foundation
Advanced Technical Education
Project #0802576

www.pcc.edu/stte

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NSF-ATE
General Overview

- 3-year, $698,095 NSF ATE grant (2008-2011).
- Focus: High Performance Design, Build & Operations for Residential and Small Commercial Applications
- Core Activities (Curriculum Development)
  - Professional Internships for PCC faculty
  - Summer Sustainability Institute for high school, 2- and 4-year college faculty.
  - Dissemination

CTE
Core Departments

- Architectural Design & Drafting
- Building Construction Technology
- Facilities Maintenance Technology
- Interior Design
- Landscape Technology

NSF ATE
Summer Sustainability Institute - SSI
www.pcc.edu/stte

- HS, CC, & College STEM Faculty
- "Train the Trainer"
- July 12-16, 2010

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The Premier Source for Sustainable Building & Climate Solutions

Oregon Institute of Technology

Green Building Services GBS

EnergyTrust of Oregon

Investing in Portland's Future
PDC
PORTLAND DEVELOPMENT COMMISSION

GBD ARCHITECTS

State Perspective

Tom Thompson
Oregon Department of Education

Statewide Context

- Phased transition of over 600 programs of study
  - Locally developed
  - State approved
- Regional collaboration emerging
- Strong statewide interest in the green economy

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The Green-Focused Project

- Federal technical assistance
  - National facilitator
  - Access to other experts
- Partnership between industry and education
- Focus on green careers
  - Sustainable building
- Model for future statewide Programs of Study
  - Emerging national standards

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Standards and Content

- Standards-based POS allowing some flexibility in delivery
  - Technical standards for design/build careers
    - *Identify building materials, fasteners, adhesives, and their uses.*
    - *Develop technical drawings drafted by hand and computer-generated plans to design structures.*
  - Relevant academic standards (building science)
    - *Perform math operations such as estimating and distributing materials and supplies to complete jobsite/workplace tasks.*
  - Interwoven standards related to green (LEED)

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Green Standards and Content

- Understand the **rationale** for sustainability and green building.
- Explain the issues, concepts, strategies, and practices of sustainable **site planning** and land use.
- Identify **water-efficiency** and management issues, concepts, strategies, and practices associated with green building.

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Green Standards and Content

- Understand how **energy** is used in buildings and how energy-saving materials, systems, and techniques are utilized in green buildings.
- Identify **indoor environmental quality** issues, concepts, strategies and practices associated with green building.
- Understand how **materials** selection and use is applied in green building.

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Critical Features

- Common set of standards with flexible courses
- Articulation based on
  - Common content
  - Instructor qualification
  - Equivalent assessment
  - Ongoing secondary/postsecondary collaboration
- Focus on instruction
  - Professional development
  - Online resources
- Continued industry input

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Workplan

- Organize continuing advisory group
- Develop and test appropriate technical skill assessments
- Expand professional development resources
- Broaden participation by other community colleges and secondary programs
- Create university articulation
- Identify other possible statewide Programs of Study

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