

**OPAS Alignment and Coordination: System-Wide and Career Pathways  
(ACSW/ CPTH) Meeting #3 - October 25, 2006  
Capital Center**

**Attendees:** Sam Tupou (Eugene School District), Scott Giltz (Clackamas CC), Susan Boyanovsky (CCWD), Gary Naseth (OIT), Jo Oshiro (OUS/OPAS), Jay Bockelman (OIT), Ron Jantzi (Chemeketa CC), David Johnson (UO), Scott Huff (PCC)

**Summary**

*The committee concluded that while many groups are working on articulation, there is a large opportunity in Pathways documentation. Our useful contribution is an integrated, simplified, high-school-student oriented “20,000 foot flyover” diagram for a career cluster that shows:*

- *A way for a student to identify where they are positioned on the pathway;*
- *How to keep one’s options open (here is one area where OPAS interests overlap with the healthcare industry’s) -some course choices limit subsequent options - e.g. biology rather than physics:*
  - *take math*
  - *take science*
  - *get the communication and analytical skills needed to meet KSUS or a similar standard (IB, AP, ...)*
  - *pursue post-secondary education;*
- *How to “make up” deficits of skills and training;*
- *A Public Relations piece, perhaps a branded CD/DVD/memory stick of a subset of the “universal pathway diagram” for a career cluster to help show students and teachers how skills and knowledge are applied in business. The RV Consortium has a DVD that would make a very good model.*
  - *the skills and preparation needed for a career cluster,*
  - *how those skills are used in the course of daily work life, “A day in the life” information for the career cluster;*
- *work-readiness and college-readiness are very similar;*
- *Labor market information and other information on current pathways diagrams.  
(Examples were brought to the meeting.)*

*Ideally, these “flyover diagrams” would eventually be part of a highly linked, interactive website providing instant access to career, job market, institutional and degree program information in detail. This model could be used as a template for other pathways in the future. **See the Action Items on pages 5 and 6.***

*The committee had additional concerns:*

- *The quality of various websites: OUS, CCWD, community colleges. A central website providing instant access between these sites might improve these through competition; this universal pathways diagram needs to live at ODE (or possibly CCWD? - Jo).*
- *High schools’ lack of capacity to offer math and science beyond the minimal graduation requirements;*
- *The potential conflicts between CTE and college-preparatory courses and programs, especially when competing for funds -- both are needed;*
- *Standards need to be coherent, useful, and congruent – NCLB (No Child Left Behind), state, and perhaps KSUS (Knowledge and Skills for University Success, David Conley).*

## Discussion

As this was the first joint meeting of the committees, we went around the table with introductions and items of interest.

- Scott Giltz joins us as Co-chair. He also serves on the Executive Board of OACTE (Oregon Association of Career and Technical Educators).
- The Alignment and Coordination: System-Wide committee has previously met twice, and undertaken the gathering of some baseline data.
- Sam Tupou is Coordinator of Curriculum at the 4J Lane School District in Eugene, and also does their PTE administration.

Jo reviewed the current plans for the All-OPAS workshop on November 17, 2006 at OMSI and recapped the subcommittee status reports.

- Susan Boyanovsky would like to have something in place to showcase this committee's work for the All-OPAS Workshop.
- Several committee members had ideas for additional contacts for disseminating the "Sparking Interest in Engineering Survey"; Susan will get additional contact info to Jo.

### **Alignment and Articulation:**

Susan recapped SB342B, which imposes some requirements for conformity for articulation and transfer between high school, community colleges, and 4 year state institutions. The problem the bill addresses is how to help those students in high school taking some PTE courses (e.g., Engineering Technology) to fulfill degree requirements and go on to community college (ASOT; Associate of Science Oregon degree) and university? The State of Oregon is very decentralized, so the educational institutions are now very individualized. Eventually CCWD (Community Colleges and Workforce Development) will have ATLAS (Articulated Transfer Linked Audit System), a computerized tracking system.

The articulation work is gaining momentum, and a statewide articulation agreement for Manufacturing Engineering Technology is expected to be completed soon.

Ron Jantzi noted that the openness and choice model has some previous failures, which these articulation agreements are designed to address. AAOT (Associate of Arts Oregon Transfer degree) students come to university and 60 of their 90 credits don't apply towards their major. Susan, Dave, and Scott Giltz noted that despite this, there is a core of courses that apply across institutions, particularly for engineering. The work of SB342B should mean AAOT and ASOT students get true junior level standing, not just symbolic level standing. Community colleges are working on filling in matrices of courses and requirements.

More work remains to be done; recently the Joint Boards of Articulation's Math group met with faculty at Chemeketa CC. Ron Jantzi reports that the learning outcomes the JBAC group showed were so broad that any of the Chemeketa math classes – even the secondary level ones – could meet them. Those educational outcomes will be revised to have a level embedded in them.

### **Baseline Data Project:**

The committees previous work in this area consisted of research and data gathering which was not explicitly discussed at this meeting. Some results of that work were distributed and are available on the OPAS Master Resources List at <http://opas.ous.edu/Committees/Resources/>:

- Total enrollment and class enrollment for “college prep” classes in selected Oregon high schools;
- Total enrollment and class enrollment for Capital Center High School and the Center for Advanced Learning, two PTE high schools;
- List of ODE approved Perkins PTE programs in the Industrial and Engineering strand.
- The federal reauthorization of Perkins funds requires 3<sup>rd</sup> party assessments, which may make more data available to us.

### **Pathways:**

Ron Jantzi and Scott Giltz were part of the Career (Degree) Pathways working group at the OPAS Summit in 2005. The epiphany that group had: make a framework and have ODE or CCWD host a website with all the pathways diagrams currently available or in formulation, with course information from each of the institutions – high schools, community colleges, universities.

- A pathway site is hosted by CCWD is up at <http://www.oregon.gov/WORKSOURCE/PATHWAYS/Type.shtml>, but not with the degree of sophistication or integrations originally envisioned.
- The quality, ease of use, terminology, and graphical presentation of various institutions’ pathways diagrams and sites varies greatly. (Pathways may be “Roadmaps” at CCWD.)
- “Pathway” could be, but is not necessarily, an articulation agreement between institutions. Some pathways articulate with agreements, some without.
- Pathways consist of courses aligned by educational outcomes, not just commonly numbered ones. The Engineered Communities group, led by Niki Schulz of Mount Hood Community College is working on common educational outcomes for common courses such as statics, dynamics, etc.
- There is a statewide course numbering system, overseen by faculty. Participation is voluntary.
- Oregon does not, at this time, have a completely documented, articulated Career Pathway.
- Pathways should include “wraparound” services and information:
  - Career counseling and job search help
  - Support services for orientation, tutoring, financial aid
  - Localized Labor market trends
- The feedback we have is that these diagrams (examples from Clackamas) are more useful to counselors than to students, but counselors love them. Students may find them overwhelming.
- Good articulation makes pathways documentation (and travel!) more clear and less cumbersome.

### **Issues:**

- Presentation of information:
  - These pathways diagrams begin to look like subway maps.
  - Career maps cluster in large groups – it’s a lot of information, so presentation and ease of use matter.
  - Pathways diagrams must **look flexible** with multiple entry points.



- level of Algebra 2 is a difficult budget problem. Is it better to fund the specialized class (i.e., PTE) or the fourth year of math?
  - How do we provide opportunities for smaller high schools?
    - Use of distance and on-line learning, which ties into teacher training as local teachers mediate student on-line learning.
    - Partnerships with Community Colleges and OUS schools.
  - There is a shortage of qualified math and science teachers.
  - There is an unequal distribution of [CTE] engineering programs in the state.
- Awareness:
  - Awareness is an issue not just with students, but with teachers and counselors.
    - Teachers need not just content knowledge, but application knowledge, to connect with how kids will use content knowledge and skills in the real world, in real careers. Application knowledge is often the missing link. We need to better communicate, especially to teachers, what engineers do.
    - (Sam) The biggest barrier to high school students is silo-driven choices.
  - Pull industry in:
    - Sam Tupou of the Eugene School District recently took a group of educators to the RV Consortium member manufacturers to see the cross-disciplinary use of CAD, graphics, design, and engineering skills, tools, and knowledge. They were quite inspired by what was obviously new information.
    - Scott Giltz of Clackamas CC took a group of secondary teachers out to a high-tech manufacturer and saw a similar result.
    - A PR piece:
      - The RV Consortium DVD is a very good model; use it for a “Pathways Advisor” that could be distributed to students for local (i.e., don’t need a fast internet connection) distribution – CD, DVD, or memory stick.
    - Get permission to link to already completed PR such as “A Day in the Life” pieces for various engineering professionals; these are available on various professional society and university recruiting website.

### **Action Item:**

We want to centralize some information, especially about what engineers do and the skills they use. Dave sketched a “20,000 foot flyover freeway” diagram for Engineering Related Technology paths that we will refine:

- need labor force data
- need approved (on ODE books) program data from CCs
- promotional info on Engineering Technology will come from Scott Huff – electronics, mechanical, microelectronic
- include degrees
- a lot of this is already available at the Career Information systems
- a lot of the OPAS data on this out of date (which programs offered)
- how to add in HS PTE/CTE?
- Do not include OTM, GED at this point
- Occupational outlook

- PR info re: what that type of engineer's day looks like
- First cut template: manufacturing engineering technology, mechanical engineering technology, mechanical engineering
- **target for this graphic is high school students - KISS**
- Emphasize decision points, and keeping options open. Which decisions close down subsequent options?
- Highlight the HS courses? Also show how to follow the path even if your local high school and community college do not offer an engineering program per se.
- Some sort of feedback to let the kids know where they are on the spectrum of need help/remedial – keeping options open – turbocharging

**Sam, David, Scott** – draft the initial graphic from our work on the whiteboard today. (*Jo notes she does not know whether this is Scott Huff or Scott Giltz – sorry.*)

**Ron, Gary** – map the Manufacturing Engineering Technology, Mechanical Engineering Technology, and Mechanical Engineering information from the current curriculum maps into the freeway graphic when they have a prototype from Dave/Sam/Scott.

**Question from Jo:** *Do we wish to continue to gather baseline data, or is what we have enough? This data is available through links to the agenda on the committee webpage at <http://opas.ous.edu/Committees/ACSW.html>, in the OPAS Master Resources List at <http://opas.ous.edu/Committees/Resources/index.html>, or in the agenda packet distributed at the meeting.*

**Next meeting:** Tuesday Dec 12, 1:00 – 3:00 at Chemeketa (confirm with Ron)

Expecting to attend: Ron Jantzi, Sam Tupou, David Johnson, Scott Huff, Susan Boyanovsky, Jay Bockelman, Gary Naseth. (*Jo sent out an email to all committee members asking to reserve the date on 11/6/06.*)