Connecting Classroom Education to Practical Work Experience for the Professional Forest Management Programs at Oregon State University

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OSU College of Forestry Departmental Structure

Departments

- Forest Engineering, Resources & Management
- Forest Ecosystems & Society
- Wood Science & Engineering

Degree Programs

- Forest Engineering
- Forest Operations Mgmt
- Forest Management
- Natural Resources
- Recreation Resource Mgmt
- Wood Science & Technology
Departmental Undergraduate Program Structure

Degree Program
- Forest Engineering
- Forest Operations Management
- Forest Management

Target Cooperators
- Forest Industry
- Forest Agencies
- Forest Consultants
- Forest Conservation

Cooperative Education Program
OSU College of Forestry
Current OSU COF Student Work Requirement

• Current work requirement
  – 6 months or 960 hours of forestry-related experience
  – Documented via employer evaluations of student performance

• Typical job search/placement strategies
  – Advising
  – Jobs website
  – Career Fair
  – Newsletters
  – Word of Mouth
Engineering Coop Education at OSU

- 110 Employers throughout the state
- 375 Interns placed in 2008
- 260 Interns placed in 2009
- Weyerhaeuser Company already a member/employer
Co-op Program Structure

First Term
- Fall Term
- Winter Term
- Spring Term
- First Summer Employment

Second Term
- Fall Term
- Winter Term
- Spring Term
- Second Summer Employment

Third Term
- Fall Term
- Winter Term
- Spring Term
- First CO-OP Employment

Fourth Term
- Fall Term
- Winter Term
- Spring Term
- Second CO-OP Employment

Co-op Program Structure
Cooperative Education Program
OSU College of Forestry
Program Logistics

- Students apply for program entry
- Employers post jobs with learning outcomes
- Employers interview
- Students and employers rank each other
- Students placed
- Faculty oversight and assistance
Integration into Curricula

- Curricula designed to permit co-op experiences and co-op applicable learning outcomes at appropriate times
- Curricular decisions informed by Advisory Board
- Focus on communication and problem solving throughout curricula
- Students receive job readiness training through core-competency workshops
- Student deliverables include papers, posters and presentations
Benefits of Co-op Education to Students

- Work experience to build skills and résumé
- Exploration into potential career paths
- Increased structure and guidance in job search/ placement
- Opportunities for networking
- Increased communication and problem solving skills
- Increased professionalism and confidence
- Classroom experience more meaningful
Other Benefits of Co-op Education

- Challenge faculty to be more engaged in teaching that is relevant and timely
- Forces intentional design of curricula to be graduated and purposeful
- Develop and improve upon existing College/stakeholder connections
  - Advisory Board
  - Public relations
  - Conversations have led to other opportunities
  - Social capital building
Preliminary Assessment Results

• 20 potential cooperators interviewed
  – Industry, Agency, NGOs, small family businesses
• Listening-centered approach
• Key themes from interviews
  – Technical skills
  – Expect graduated skill development
  – GPA as a baseline only
  – 4 C’s and an A
    • Critical Thinking, Collaboration, Creative Problem Solving, Conflict Negotiation
    • Attitude
Challenges and Goals for the Future

• Key Challenges
  • Employer preference for same student every summer to allow “grooming”
  • Employer preference for hiring student directly following last work term
  • Design of curricula to accommodate participating and non-participating students
  • Design of co-op program to accommodate transfer students
• Continued employer and student assessment
• Implementation for summer 2011
Co-op Presentation Night at UBC

Process Capability Studies

- Used to measure the capability of each machine and the tolerance they are able to achieve
- Uses Statistical methodology

[Graph showing process capability studies]