



November 2008

Coming OWIC events:

December 8-11: [How to Dry Lumber for Quality and Profit](#)
Corvallis, OR

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Graduate Research Assistant Positions

Wood Science & Engineering Oregon State University



Oregon Wood Innovation Center faculty have been successful in garnering a significant amount of external funding lately that allows us to hire a number of graduate students. Given the economic circumstances in the industry these days, now might be a great time to return to the university to upgrade your skills and ride out the downturn.

We offer the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Wood Science and the Master of Forestry (M.F. in Forest Products). The M.S. and Ph.D. degree programs are closely integrated with our research activities and allow students to tailor their program around a wood science foundation. All programs are highly interdisciplinary and many students also pursue dual graduate degrees in science and engineering disciplines such as Civil Engineering, Mechanical Engineering, Statistics, or Forest Science, for example.

- Materials Science
- Biodeterioration & Wood Preservation
- Wood Drying & Moisture Relations
- Scanning Technology/Computer-Aided Processing
- Wood Anatomy and Quality
- Process Modeling & Analysis
- Transport Processes in Wood
- Timber Engineering & Structural Design
- Wood & Adhesive Chemistry
- Forest Products Marketing
- Environmental Remediation & Pollution Abatement
- Composite Design, Processing, and Performance

If you are interested in studying for an MS or PhD in the breadth of fields included in our program, the following opportunities are available beginning in the fall of 2009.

Graduate Research Assistantship cont.

National Needs Fellowships – Forest Resources Utilization and Advanced Forest-based Products Marketing

Three MS positions. Candidates should be US citizens and interested in bio-based composites/material science and/or product development and commercialization. Students from traditionally underrepresented groups are encouraged to apply. Faculty Contacts: [Lech Muszyński](#), [Fred Kamke](#), [Chris Knowles](#), and [Eric Hansen](#)

Forest Sector Innovation Management

MS or PhD position. Candidates should be interested in innovativeness, new product development, and industry competitiveness. Faculty Contact: [Eric Hansen](#)

Forest Products Branding Strategies

MS position. Candidates should be interested in branding and the exploring the development of local markets for structural building products. Faculty Contact: [Chris Knowles](#)

Composite Manufacturing Design Concepts

MS position. Candidate should be interested in material testing and composite manufacture. Faculty Contact: [Fred Kamke](#)

Bio-based Composites

M.S. or Ph.D. level. Candidates should be interested in advanced bio-based composites and have a background in: wood science/forest products, civil engineering, materials (polymer) science/engineering, composites, chemical engineering (with a strong interest in polymers and/or adhesion) or related fields. Students with other technical backgrounds and strong interest in optics, digital image analysis, computed tomography (CT), FEM programming are also encouraged to apply. Dual majors with the departments of Civil or Mechanical Engineering (Material Sciences Program) are available. Faculty contact: [Lech Muszyński](#)

Wood Drying and Moisture Relations

M.S. or Ph.D. level. Candidates should be interested in how water interacts with wood during drying or when wood is used in service. Faculty contact: [Mike Milota](#)

Graduate Research Assistantship cont.

Formaldehyde-free Wood Adhesives and Bio-based Composites

M.S. or Ph.D. level. Candidates should be interested in development and evaluation of formaldehyde-free wood adhesives and novel bio-based composites Faculty contact: [Kaichang Li](#)

Timber Engineering / Mechanics

MS positions. Interested Candidate with BS in Civil/Structural Engineering are needed to work on: (1) Wave Loading on Wood Frame Structures, and (2) Bending Characteristics of Wood Utility Poles. Faculty Contact: [Rakesh Gupta](#)

Faculty contact information is available at <http://owic.oregonstate.edu/contact.php>

New guide to wood energy shows how to save money, replace fossil fuels

EUGENE, Ore. -- (Oct. 24, 2008) -- A new guide from Resource Innovations, a program within the Institute for a Sustainable Environment at the University of Oregon, details how heating large buildings with woody biomass can save money and promote carbon-neutral energy uses.

The new guidebook "Wood Heat Solutions: A Community Guide to Biomass Thermal Projects" and the companion video "Keeping Energy Dollars Local: Using Wood to Heat the Enterprise School" show how using woody biomass for heat can dramatically reduce energy costs and improve forest health.

According to the guidebook, woody biomass is a renewable resource that is both local and carbon-neutral. It is a by-product of fuels reduction, forest thinnings or wood products manufacturing. Converted into wood chips or pellets and burned in a boiler, the guidebook states that it can be a practical and economical

fuel for heating.

Using wood to heat community facilities is becoming increasingly popular because of the rising cost of fossil fuels and a greater interest in community renewable energy. "Resource Innovations developed this guide for schools, hospitals, government buildings and other facilities that need a lot of heat on a small budget," said Marcus Kauffman, program manager. "With multiple benefits, including cost savings, wildfire risk reduction, low emissions and increase local employment, we encourage community leaders and local businesses to consider using woody biomass and talk with those reaping the benefits first hand."

This fall, students at Enterprise High School in Wallowa County, Ore., were the first in the state to attend a school heated with wood in more than 50 years. The school district estimates an annual savings of \$112,000 from the conversion of an oil-fired boiler into one using wood chips from a local post and pole

business. The \$1.5 million project included a comprehensive energy audit to improve energy conservation at the school. A U.S. Department of Agriculture grant obtained by Wallowa Resources funded a visit from technical experts and feasibility studies.

In addition, the 55,000-square-foot Harney County District Hospital in Burns, Ore. installed a wood pellet boiler last year and has already saved more than \$50,000 compared to propane or electricity. According to Jim Bishop, the hospital's chief executive officer, "the decision to use wood pellets to heat the hospital was based on cost savings as well a desire to reduce reliance on traditional fossil fuels." In operation for over a year, the system requires minimal maintenance and generates modest amounts of waste product -- about 30 gallons of ash every two to three weeks -- that is given to people in the community to use as a soil supplement.

New guide to wood energy cont.

“Out here in Harney County, folks are just happy that we’re using wood and saving money,” said Bishop.

The guide book “Wood Heat Solutions” and video “Keeping Energy Dollars Local” are available at <http://ri.uoregon.edu>.

Resource Innovations is a research collaboration between the Resource Innovation Group and the University of Oregon Institute for a Sustainable Environment. The organization offers research, education and technical assistance on climate change, sustainable development, biomass energy and community natural resource management.

About the University of Oregon

The University of Oregon is a world-class teaching and research institution and Oregon’s flagship public university. The UO is a member of the Association of American Universities (AAU), an organization made up of 62 of the leading public and private research institutions in the United States and Canada. Membership in the AAU is by invitation only. The University of Oregon is one of only two AAU members in the Pacific Northwest.

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Links:

Resource Innovations:
<http://ri.uoregon.edu>

Wood Heat Solutions: A Community Guide to Biomass Thermal Projects
http://ri.uoregon.edu/programs/CCE/BU_CommunityGuide.html

Keeping Energy Dollars Local: Using Wood to Heat the Enterprise School
<http://ri.uoregon.edu/programs/CCE.html>

<http://www.youtube.com/watch?v=E0by7BXrfPU>

Forest cluster economic strategy to be unveiled at Dec. 10 briefing

A new economic strategy for Oregon’s forest cluster, developed by a consortium of public and private sector forestry interests, will be presented and discussed at an upcoming briefing at the World Forestry Center in Portland. Stakeholders and the public are invited to attend the review, listen to the presentations and offer feedback.

Presentations will include:

- Forest Cluster Economic Development Strategy
Steve Zika & David Morman
- Federal Forest Restoration
Allyn Ford & Steve Hobbs

- Oregon InC Forestry Proposal
Matt Donegan & Scott Leavengood
- Forestry Workforce Development
Jim Geisinger & Chris Claflin
- Feedback/Discussion
Jennifer Allen & Mike Cloughesy

Public and private input helped create the economic strategy, developed by The Oregon Department of Forestry, The Oregon Department of Economic and Community Development, Oregon State University College of Forestry/Oregon Forest

Research Laboratory and the Oregon Forest Resources Institute.

More information is available here (http://www.oregonforests.org/media/pdf/OR_For_Cluster_Strat.pdf).

Visit http://www.oregonforests.org/media/pdf/Economic_strat_brief_flyer.pdf to register for the briefing.

