M.S. Assistantship: Effects of genetics and stress on forest tree function and cellulose quality

School of Forestry & Natural Resources, University of Arkansas at Monticello

The School of Forestry & Natural Resources at the University of Arkansas at Monticello is seeking applicants for a M.S. Assistantship available beginning January 2, 2018, contingent upon funding. The assistantship is half time and carries an annual stipend of $15,000 plus tuition.

**Project:** Knowledge of tree function enables development of novel strategies for sustainable management of forests. This project seeks to evaluate the physiological basis for tree resistance to environmental stress (e.g., nutrient deficiency, excess water), and the the impacts of genetics and environmental stress on the quality of wood for the production of cellulosic nanocrystals. The research may involve both lab- and field-based experiments. The successful applicant will learn a variety of physiological techniques and analytical laboratory skills relevant to assessing both cellulose quality and plant function, including relevant biochemical and molecular techniques, and will have opportunities to interact with collaborators who are developing novel bioproducts utilizing renewable cellulose from trees. The project will be the basis for the applicant's M.S. thesis.

**Requirements:** Applicants must have a 2.7 overall undergraduate GPA or 3.0 GPA in the last 60 semester hours of undergraduate courses and satisfactory GRE scores. A B.S. degree in a natural resources-related field is also required. Applicants must have a valid U.S. driver's license or obtain the same within 60 days of starting employment. Overnight travel is required as well as the ability to work outdoors in all weather conditions.

**Location and Facilities:** The School of Forestry & Natural Resources is located in Monticello, Arkansas in the southeastern portion of the state. The Arkansas Forest Resources Center is also headquartered here, and is administered by the University of Arkansas System Division of Agriculture. The Arkansas Forest Resources Center is the research and extension arm for forest-based programs within the State. Additionally, the USFS Arkansas Forestry Sciences Lab is located at the School. The School and Center maintain several state-of-the-art laboratories (hydrology, soil, quantitative analysis, silviculture, wildlife ecology & management) available for graduate research and education.

**Application & Additional Information:** Graduate program and application information can be found at [http://www.uamont.edu/sfnr](http://www.uamont.edu/sfnr). Applicants must be admitted to the University of Arkansas at Monticello and apply to the School of Forestry & Natural Resources before they can be considered for an assistantship. Applicants must submit all GRE scores, official transcripts, a statement of interests, and three letters of recommendation. Please indicate the position number above on all application materials and inquiries. For additional information, please contact:

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The position is available until a qualified applicant is selected.