

CENTER FOR PACKAGING AND UNIT LOAD DESIGN

M.S. Research Assistantship Available!

RESEARCH TITLE: Econometric Modeling the Quantity of Wooden Pallets in Circulation in the United States

ASSISTANTSHIP DATES: August 1, 2023 - May 7, 2024

RESEARCH PROJECT DESCRIPTION:

Wood is the most commonly used material for pallet production with a 95% market share. Each year 839 million wooden pallets are manufactured and recycled accross the U.S. Wood pallets store carbon that was captured during the lifetime of the tree; therefore, info on the total number of wooden pallets in circulation is essential to assess the sustainability of the industry.

The objective of this research project will be to conduct a material flow analysis supported by econometric modeling to estimate the accumulation of wooden pallets in the system since the 1970s.

WHAT'S EXPECTED:

Selected graduate students will pursue their graduate degree through the Department of Sustainable Biomaterials.

RESPONSIBILITIES INCLUDE:

· Ability to conduct scientific research, independently.



- · Work 16 hours per week for the Center for Packaging and Unit Load Design as a Graduate Laboratory Manager.
- · Present research at scientific conferences.
- · Represent the Center at national tradeshows.

FUNDING:

Graduate Assistantships usually provide a \$27,000-\$29,000 annual stipend in addition to fully covering Virginia Tech tuition.



REQUIRED QUALIFICATIONS:

- Already have completed a BS in Packaging Science, Wood Science, Mechanical Engineering, or another related field
- Must be accepted into a M.S. or Ph.D. program within the Department of Sustainable Biomaterials at Virginia Tech
- Must have completed the TOEFL and the GRE with acceptable scores, and must have a GPA of at least 3.4

PREFERRED QUALIFICATIONS:

- · Experience with scientific research, statistics, and data analysis
- · Good writing, communication, and interpersonal skills
- Experience with statics, mechanics, and advanced mathematics

The Center for Packaging and Unit Load Design is one of the most experienced research centers in the area of package, pallet and unit load design. The Center was established in 1976, and since then, it focuses on the development of systems-based technologies to optimize the relationship between the design and performance of unit loads, and maximize the efficiency of the complete system.