

**Registration:** \$400 for members of Center for Packaging and Unit Load Design, \$700 for ISTA/ MHI/ Pallet Profile Subscribers/ Best Load or Best Pallet Licensees, \$800 Non-members. **Early registration ends on July 12th, 2019.** After then, add \$50.00 to each rate. The registration fee includes all course materials, CEU certificate, daily continental breakfast, lunch and refreshment breaks.

You can register for this short course by:

- Calling: Erich Sawyer at 540-231-4084
- Visiting: [unitload.vt.edu/education/continuing-education](http://unitload.vt.edu/education/continuing-education) and clicking the registration link

**Lodging:** A block of rooms is reserved for short course attendees at the Courtyard by Marriot in Blacksburg, VA. It is located only a mile from where the short course will be held. More information can be obtained by calling the Marriot at 540-552-5222 and asking about the rooms reserved for the Center for Packaging and Unit Load Design. **These rooms will be held until July 12<sup>th</sup>, 2019.**

**Location:** Brooks Forest Product Center, Virginia Tech, 1650 Research Center Dr. Blacksburg, VA 24061

Brooks Forest Products Center  
1650 Research Center Dr.  
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# Unit Load Design and Performance Short Course

Aug. 13th-15th, 2019



**THE CENTER FOR PACKAGING  
AND UNIT LOAD DESIGN**

Virginia Tech

# "How to Utilize Unit Load Design"

Who should attend? Unit Load Design is a revolutionary, systems design approach that significantly reduces the cost of distributing products to consumers by understanding how pallets, packaged products, and handling equipment, mechanically interact. Unit Load Design is a new and valuable service that pallet, packaging, and handling equipment suppliers can offer their customers. Any manufacturers and suppliers, as well as the users of these components will benefit from attending this short course!

## Short Course Agenda

Day 1: 2:00pm-5:00pm

- Principles of Unit Load Design
- Basics of Packaging Design: Corrugated Boxes, Drums & Pails, Bags/IBC, Load Stabilization

Day 2: 8:00am-5:30pm

- Basics of Material Handling Systems: Industrial Trucks, Conveyors, Rack Systems, & Automated Warehouses, Shipping Systems
- Basics of Wood Pallet Design
- Unit Load Design practice using "Best Load"
- Tour of the Center for Packaging and Unit Load Design's packaging and pallet testing laboratory.

Day 3: 8:00am-12:00pm

- Interactions between Material Handling Equipment, Packaging, and Pallets
- Unit Load Design Practice using "Best Load"
- Field Audit Examples and Case Studies

## What is the short course about?

This intensive three-day short course will teach techniques that pallet and packaging designers can use to save money on corrugated board and plastic packaging materials when designing pallets and packages by considering the interactions between all of the components of unit loads. The course will use a state-of-the-art unit load design software called "Best Load" to better demonstrate the steps of unit load design process. You will also be taken on a tour of a working, state of the art, packaging and pallet testing laboratory!

**Dr. Laszlo Horvath** is the Director of the Center for Packaging and Unit Load Design at Virginia Tech. He also teaches package engineering and pallet design to both undergraduate and graduate students. His research areas include the analysis of interactions between the components of unit loads and the development of bio-based and sustainable packaging materials. Dr. Horvath is one of the 50 ISTA Certified CPLP professionals, a member of various ASTM, ANSI, and ISTA committees.

**Dr. Marshall "Mark" White** has been a member of the faculty at Virginia Tech since 1975. His research through the pallet and unit load design lab focused on unit load materials handling efficiency. As a result of his research expertise, Dr. White has written many of the national and international standards for pallets and containers. In his new role as CEO of White & Company, his consulting specialty is in packaging and pallet design solutions that optimize supply chain performance.