



The *TranLIVE Spotlight* is a bi-weekly update from the University Transportation Center research collaboration led by the University of Idaho

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TEACHING FUTURE TRANSPORTATION PROFESSIONALS ABOUT SIGNALIZED INTERSECTIONS

MOSCOW, Idaho – Michael Kyte and Maria Tribelhorn, TranLIVE researchers at the University of Idaho’s National Institute of Advanced Transportation Technology (NIATT) have recently created new course materials on signalized intersections to better prepare students entering the transportation workforce. The new curriculum is based on a series of studies conducted on student engagement with introductory transportation engineering coursework.

The researchers analyzed student exam results, homework assignments, and interviews with students to identify concepts that were particularly difficult for them to understand. Existing textbooks and professional guidebooks were reviewed as a means to identify how each subject was currently being treated and to focus on concepts relevant to the industry. The challenge according to the researchers, was to develop a curriculum simple enough to allow the student “in the door,” but to include enough complexity to make the learning process both challenging and worthwhile.

In developing their new curriculum researchers established six guidelines to address current gaps in introductory transportation engineering. Of particular note is that Kyte and Tribelhorn included over 70 figures to graphically illustrate basic concepts such as queuing model concepts, controller timing processes, and the development of the change and clearance timing intervals. By doing so the researchers hope to encourage active learning of the traffic signal control system in a way that connects with a student’s existing experiences as a driver, pedestrian and or bicycle rider.

The complete report is available at: <http://bit.ly/tranlive092914>

ABOUT TRANLIVE UNIVERSITY TRANSPORTATION CENTER

TranLIVE is the Transportation for Livability by Integrating Vehicles and the Environment a research collaboration lead by the University of Idaho in partnership with Old Dominion University, Syracuse University, Texas Southern University, and Virginia Polytechnic Institute and State University. TranLIVE works to find solutions to transportation challenges that minimize environmental impacts while educating students to enter the transportation workforce and creating and transferring tools and knowledge to practicing transportation professionals. TranLIVE is sponsored by the United States Department of Transportation (USDOT) University Transportation Centers Program. For more information visit: www.tranliveutc.org