

CAMMSE Transportation Summer Camp Recap.

The Transportation Summer Camp was the week of June 14-18, 2021, led by Dr. Martin Kane with help from Dr. Erika Weber and Linda Hargrove from the department of Civil and Environmental Engineering. A result of the Covid-19 pandemic, the campers' activities were limited in size and restricted to on-campus, socially distanced activities. There were five remote [Zoom] sessions throughout the week from CATS, Charlotte-Douglas Airport, Dr. Mei Sun, Michigan State University, and the City of Austin, Texas. We rotated between in-classroom activities and outside activities on the UNC Charlotte campus. All of the campers were engaged every day, especially when we went to see the differences in the bridges and the traffic observations. There were 19 campers enrolled [limit of 20] and all of the campers were curious and asked many questions about many things.

Below are some of the highlights of the week:

MONDAY:

Jason Lawrence from C.A.T.S. [Charlotte Area Transit System] presented current projects at CATS and what will be happening in the future. Jason showed an overview of the Silver Line light rail corridor from the Mathews area [Southeast area of Charlotte] to the airport and ending at Belmont [Western Charlotte] in Gaston County. He talked about the expanded streetcar system that will go past Johnson C. Smith University on the northwest to Central Piedmont Community College campus near Uptown Charlotte and continuing on towards the east, eventually connecting to the former Eastland Mall site. A section of the streetcar will be "off-wire" through Uptown along Tryon Street where the streetcar will use hybrid technology to power the streetcar.

On Monday afternoon, Dr. Erika Weber led the campers through a fascinating presentation about the different types of bridges, how the bridges hold the weight of traffic, and why some of the different types of bridges are better suited in some situations. Dr. Weber had the campers build model bridges out of paper and spaghetti and marshmallows. This activity was great fun [and messy]!!

TUESDAY:

In the morning Dr. Weber took the campers on a tour of some of the bridges on the UNC Charlotte campus, explaining the similarities and differences of a truss pedestrian bridge over Toby Creek and a beam roadway bridge, also over Toby Creek.

In the afternoon, Dr. Kane took the campers to the intersections of Phillips/Phillips and Phillips/Snyder to observe the behavior of drivers at a Stop Sign. Most vehicles did NOT come to a complete stop, and the campers noticed. It became a game for the campers to see if they

could predict which vehicle would come to a complete stop and which vehicle would Roll [or Run] through the Stop Sign. For these soon-to-be drivers, it was a teachable moment.

WEDNESDAY:

In the morning, the Charlotte-Douglas Airport presented the many robust projects at the airport. The expansion of the main terminal building; a new control tower at the southern end of the airport; expanding the roadway in front of the terminal, new parking decks, a new fourth North-South parallel runway; expanding the rail yard between [and below] two parallel runways; dealing with Covid-19 in the aviation industry; cargo operations [UPS, FedEx] at night; All of this while maintaining 7/24 operations. Whew! There were many good questions from the campers and the people from the airport handled the questions deftly.

In the afternoon, Dr. Kane took the campers to the intersection of Cameron Blvd. and Phillips Road to see a signalized intersection at work. The traffic volume was light so there was no congestion issue to deal with. The only pedestrians were the campers and some of the campers used the pedestrian buttons to interrupt the signal and see what would happen. Another teachable moment.

THURSDAY:

At the beginning of the day, Dr. Kane took the campers outside of the EPIC Building to conduct a seatbelt study along Phillips Road. The campers were surprised at how many drivers were NOT wearing a seatbelt. We then went back to the classroom for a presentation from Dr. Mei Sun about the Environmental aspects of Transportation engineering. Some of the campers were so impressed with Dr. Sun's presentation that they were considering Environmental Engineering to study at college.

In the PM, there were two Zoom presentations about Smart Vehicles and Smart Streets. The Smart Vehicles presentation was delivered by Dr. Peter Savolainen of Michigan State University. The Smart Streets presentation was given by the City of Austin, Texas by Joseph McKenzie [Project Manager] and Alex Payson [Sr. Business Process Consultant]. Again, there were many good questions from the campers and good answers from all of presenters.

FRIDAY:

In the morning, Dr. Kane presented, "How to Drive" aimed at younger drivers. There were many good questions from the campers and Dr. Kane answered most of them correctly. These campers were sharp!

After the noon break the campers went to work on creating their customized banners to represent what they learned and experienced at this years' camp. There was a competition to see which camper created the "Best" banner and there were many unique designs to judge from. CAMMSE was the winner by having 19 engaged campers all five days.

Result: Dr. Kane had the most fun of anyone at the camp.

Select photos of the June 2021 edition of the camp are provided in the following figures:











