

CAMMSE Transportation Summer Camp Recap

The 5th Annual Transportation Summer Camp was the week of June 20-24, 2022, led by Dr. Martin Kane with help from Dr. Erika Weber from the Department of Civil and Environmental Engineering. This year [2022] was different than 2021. There were fewer restrictions about the number of campers allowed to participate [25] and we were allowed to return to the field trips away from the UNC Charlotte campus. There were three remote [Zoom] sessions throughout the week from the City of Austin, Texas about Smart Streets, Michigan State University about Smart Vehicles, and Dr. Mei Sun from UNC Charlotte Civil & Environmental Engineering about the environmental aspects of civil engineering. 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 different bridges around campus, the traffic observations on campus, and the field trips to the Charlotte Area Transit System LYNX facility and the Charlotte-Douglas [CLT] airport. There were 12 campers enrolled and all the campers were curious and asked many questions about many things.

Below are some of the highlights of the week:

MONDAY:

On Monday morning we started by teaching the campers how to be safer drivers and passengers. They especially liked the short YouTube videos on how to turn left at a signalized intersection. On Monday afternoon, Dr. Erika Weber led the campers through a fascinating presentation about the different types of bridges, how bridges hold the weight of traffic, and why some of the different types of bridges are better suited in certain situations. Dr. Weber had the campers build model towers out of newspaper [the tallest tower was 76 inches!] and another bridge construction project with toothpicks and gumdrops. Then we toured the UNC Charlotte campus on foot to observe the different types of bridges [Beam, Arch, and one bridge constructed of Wood]. This activity was great fun for the campers.

TUESDAY:

In the morning Dr. Kane explained how to observe traffic without affecting the data collecting process. Then we went out to observe driver behavior at a Stop controlled intersection. I believe the campers were surprised at how many vehicles rolled through or ran through the intersection. This was a teachable moment for many of the campers.

In the afternoon, the City of Austin, Texas had a good presentation [on Zoom] from Joseph McKenzie [transportation planner] about what the city of Austin is doing with technology to keep people safe in their vehicles, while they are pedestrians, while riding scooters, while riding bicycles, or while riding on transit vehicles. The campers [and I] learned about what the near-future will bring in transportation technology in Austin.

WEDNESDAY:

Our day started at the UNC Charlotte Blue Line light rail station and we boarded the train for the New Bern station stop where Jason Lawrence of CATS met the campers. We went on a tour of the light rail maintenance facility [the train washing area was a highlight] and then to the operations center where the campers were impressed with all of cameras at all of the platforms on the Blue Line.

After lunch at the Charlotte-Douglas airport overlook, we went to the airport bus maintenance building where Ashton Watson, Melissa Treadaway, and Sidney Richardson [all UNC Charlotte alums!] previewed some of what is going on at the airport and what we were going to see on the tour. We were on the taxiways mostly where we could see the planes up close, where there was refueling going on, where the ground crew were loading and unloading luggage, and where the people guiding the planes to the gates were working. The campers learned much about transportation on the field trips.

THURSDAY:

At the beginning of the day, Dr. Mei Sun presented [on Zoom] an overview on the Environmental Engineering aspects of Civil Engineering. Then 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. One of the campers took the initiative to make a sign urging the drivers to use their seatbelts; the camper received some 'thumbs up' from a few of drivers.

In the afternoon, the campers were fascinated to learn about Smart Vehicles from Dr. Peter Savolainen [Dr. Pete] from Michigan State University delivered on Zoom. There were many good questions from the campers and good answers from Dr. Pete.

FRIDAY:

In the morning Dr. Kane gave a presentation about the many signs in the roadway environment and the led a group quiz on road signs. Many of the campers were surprised to know how many signs there are out in the roadway environment. Then the campers went to work on their individual banners highlighting the transportation subjects they learned about throughout the week.

After the noon break the campers went back to work on their customized banners. There was a competition to see which camper created the "Best" banner and there were many unique designs to judge from. There was a special award on safety that one camper earned by making a sign during the seatbelt observation encouraging road users to buckle up.

CAMMSE was the winner by having engaged campers all five days.

Result: A good time at camp was enjoyed by all, especially Dr. Kane.

The campers filled out an evaluation about the camp on Friday.

- *100% of the campers said it was a valuable experience.*
- *90% of the campers said the information was interesting.*
- *100% would consider recommending this camp to a friend.*



