



# SESSION 3: Successful Course Delivery During the Pandemic

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# Overview

- Broader View
  - Education Outreach Initiatives
- Lessons Learned
  - UNL – Mid-America Transportation Center
  - AU – Auburn University Transportation Research Initiatives

# Roads, Rails, and Race Cars

- K-12 After School STEM Program, with an emphasis on Middle School students
- Clubs meet weekly, are led by engineering undergraduate students, hosted by teachers
- **Spring 2020 (partial), Summer 2020 (cancelled), Fall 2020 (hybrid), Spring 2021 (hybrid), Summer 2021 (in person),...**



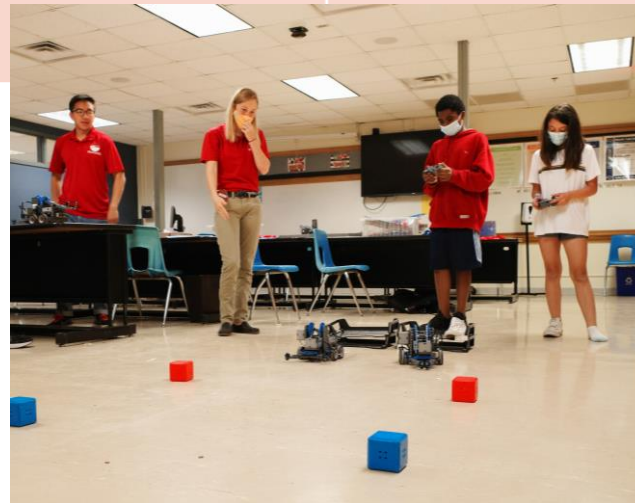
# Lessons Learned

## Negative

- Hybrid programming less popular with student participants.
- ~ 50% drop in participation
- Loss of relationships with schools and staff due to staff turnover, changes in programs, teacher interest.

## Positive

- Revision of curriculum to include several new topics, including culturally significant STEM lessons and activities.
- Revision of in-person club format.
- Greater autonomy at certain schools, able to run program with MATC support.





# MATC Scholars Program

- Multi-institutional collaboration among R1 institutions, HBCU, HSI, Tribal Colleges, and industry representatives.
- Multi-day program featuring intensive sessions, one-on-one mentoring, networking opportunities.
- **4 Year: 2020 (postponed), 2021 (virtual)**
- **Tribal College: 2020 (virtual), 2021 (postponed), Fall 2022**

**— 2021 SCHOLARS PROGRAM —**

The MATC's Scholar's Program connects students from underrepresented groups with diverse faculty and educational administrators who, through a series of virtual seminars, encourage and teach them the necessary skills to succeed in obtaining graduate degrees in their chosen STEM-related fields.

The banner features a grid of 24 individual photos of participants and faculty members. The photos are arranged in a roughly rectangular layout, with some larger and some smaller. The participants are diverse in age and ethnicity. The banner also includes logos for various institutions at the bottom: Michigan Technological University, Texas A&M University, University of North Carolina, Southern University, Lincoln University, New Mexico State University, Nebraska, Eastern Shore University, Tennessee State University, and Auburn University.

# Lessons Learned

## Negative

- Hybrid programming less popular and impactful with student participants
- Internet connectivity severely limited tribal college students from participating

## Positive

- Revision of TC curriculum to include several new sessions
- Scalability: Improved hybrid sessions



# Sovereign Native Youth STEM Leadership Academy

- Week-long residential program for grades 9 - 12
  - Developed in partnership with the NCIA
  - Encourage NA students to consider careers in STEM fields
  - Native American leadership
  - Workshops, panels, site tours, hands-on activities
- **2020 (Virtual), 2021 (cancelled), 2022 (in person, this month!)**





# Lessons Learned

## Negative

- Internet connectivity severely limited students from participating
- Coordination for virtual programming very challenging

## Positive

- Participating teachers maintained interest and have recruited a record number of students for 2022
- Increased interest and support with various on campus partners





# Alabama Technical Assistance Program

- Very little experience in providing on-line/virtual courses
  - similar to many LTAP in the southeast
- Adopted virtual program during pandemic
- Lessons Learned
  - Increased flexibility in scheduling
  - Decrease in cost of facilities / course expenses
  - Convenience of learning from the office
    - less time commitment and cost of travel
- Going forward
  - Combination of approaches: function of stakeholder needs

# Alabama Transportation Conference

- Hosted by AU since 1958
  - ~1000 Attendees
  - **2020 (in person), 2021 (virtual), 2022 (in person)**
- Lessons Learned
  - Cost decreased
  - Survey
    - clearly preference by participants for in-person meeting

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Thank you