

**Day 1-June 20 - All times listed are MDT**

TIME-MDT	SESSION	
10:00 AM-10:55 AM	Welcome and Introductions: MESA USA Directors, Curriculum Committee Webinar Link: <a href="https://us06web.zoom.us/webinar/register/WN_GwUEEgTNT8GsOkOcrkW00Q">https://us06web.zoom.us/webinar/register/WN_GwUEEgTNT8GsOkOcrkW00Q</a>	
	Keynote Address: Dr. Ebony McGee	
	<b>TRACK 1: Invention Education</b> Zoom Link: <a href="https://us06web.zoom.us/j/87480119846">https://us06web.zoom.us/j/87480119846</a> Meeting ID: 874 8011 9846	<b>TRACK 2: MESA in a Time of Uncertainty</b> Zoom Link: <a href="https://us06web.zoom.us/j/83130952046">https://us06web.zoom.us/j/83130952046</a> Meeting ID: 831 3095 2046
<b>Session 1:</b> 11:00 AM-11:55 AM	Glocalization: From UN Sustainability Goals to Designing for Equity in Your Community	Lego Your Bias
12:00 PM-1:00 PM	BREAK	
<b>Session 2:</b> 1:00 PM-1:55 PM	What's Your Problem? Utilizing Interviewing and Empathy to Arrive at a Problem Statement	"What's Wrong with Avery?"
<b>Session 3:</b> 2:00 PM-2:55 PM	That Solution Seems Sketchy: Engaging Students' Artistic and Creative Thinking to Arrive at Prototypes	Navigating Uncertainty: Continuing Impactful MESA Work During Pandemics, Shutdowns, and More
3:00 PM-3:30 PM	Closing Remarks: Curriculum Committee Zoom Link: <a href="https://us06web.zoom.us/j/84376550063">https://us06web.zoom.us/j/84376550063</a> Meeting ID: 843 7655 0063	

**WELCOME AND INTRODUCTIONS**

*Presented By:* Ling Faith-Heuertz, NM MESA Director; Anita Gonzales, NM MESA Deputy Director; Dwight Carr, MD MESA Director and MESA USA Chair; Rudy McCormick, AZ MESA Director; and Bill Pike, Curriculum Committee Chair.

*Time:* 10:00 AM-10:10 AM

Welcome to our annual MESA USA Summer Convening. Our MESA USA team is excited to share with you tools on invention education, working with MESA in a time of uncertainty and so much more.

**KEYNOTE ADDRESS**

*Presented By:* Dr. Ebony McGee

*Time:* 10:10 AM-10:50 AM

As a professor of diversity and STEM education at Vanderbilt University's Peabody College, Dr. McGee investigates what it means to be racially marginalized while minoritized in the context of learning and achieving in STEM higher education and in the STEM professions. She studies in particular the racialized structures and institutional barriers that adversely affect the education and career trajectories of underrepresented groups of color, particularly focusing on STEM entrepreneurship. This involves exploring the social, material, and health costs of academic achievement and problematizing traditional forms of success in higher education, with an unapologetic focus on Black folk in these places and spaces. Her National Science Foundation (NSF) CAREER grant investigates how marginalization undercuts success in STEM through psychological stress, interrupted STEM career trajectories, impostor phenomenon, and other debilitating race-related trauma for Asian, Black, Indigenous, and Latinx doctoral students.



Education is her second career; she left a career in electrical engineering to earn a PhD in mathematics education from the University of Illinois at Chicago, a Spencer Postdoctoral Fellowship at the University of Chicago, and an NSF Postdoctoral Fellowship at Northwestern University. With funding from eleven NSF grants, she cofounded and directs the Explorations in Diversifying Engineering Faculty Initiative or EDEFI (pronounced "edify"). She also cofounded the Institute in Critical Quantitative and Mixed Methodologies Training for Underrepresented Scholars (ICQCM), which aims to be a go-to resource for the development of quantitative and mixed-methods skillsets that challenge simplistic quantifications of race and marginalization. ICQCM receives support from the NSF, The Spencer Foundation, and the W. T. Grant Foundation.

Her latest research explores the relationship between STEM innovation and entrepreneurship, whose infrastructure requires enhancements to support a more diverse population of founders and business owners in STEM. She is part of the research team for National GEM Consortium's Inclusion in Innovation Initiative (i4), which is a \$3.5 million cooperative partnership with the NSF to develop a national diversity and inclusion infrastructure for the Innovation Corps (I-Corps) Program. This program supports academic researchers in launching successful tech startups through entrepreneurial training, particularly translating their research discoveries from the laboratory to the marketplace. Her first solo-authored book is entitled [Black, Brown, Bruised: How Racialized STEM Education Stifles Innovation](#).

**Glocalization: From UN Sustainability Goals to Designing for Equity in Your Community**

*Presented By:* Dr. Kees de Groot, Rhode Island MESA

*Session 1, Time:* 11:00 AM-11:55 AM

Using the 17 UN Sustainability Goals, this session will tie global goals to potential themes in your community.

**Lego Your Bias**

*Presented By:* Bill Pike and Manny Leon, Arizona MESA

*Session 1, Time:* 11:00 AM-11:55 AM

Engage in a hands-on activity designed to jump start the conversation about bias and having students recognize inequities. Materials needed: paper, tape, scissors.

**What's Your Problem? Utilizing Interviewing and Empathy to Arrive at a Problem Statement**

*Presented By:* Kelli Garcia, Oregon MESA

*Session 2, Time:* 1:00 PM-1:55 PM

Using Interviewing to create a problem statement that is particular to the client. Materials needed: paper, pencil.

**"What's Wrong with Avery?"**

*Presented By:* Sezi Fleming, Washington MESA

*Session 2, Time:* 1:00 PM-1:55 PM

Avery is a student-athlete in high school with a lot of mysterious issues with their health. It is up to us to figure out what factors in their community could be causing these issues. In this activity, we will learn about different types of community resources and how they can affect community health. We will also learn about how community makeup can vary and contribute to different health outcomes caused by both environmental and political factors. Materials needed: paper, pencil.

**That Solution Seems Sketchy: Engaging Students' Artistic and Creative Thinking to Arrive at Prototypes**

*Presented By:* Nick Kunz, New Mexico MESA

*Session 3, Time:* 2:00 PM-2:55 PM

Learn about strategies to engage students' artistic side as we sketch and prototype potential solutions. Materials needed: paper, pencil, optional-colors/coloring pencils.

**Navigating Uncertainty: Continuing Impactful MESA Work During Pandemics, Shutdowns, and More**

*Presented By:* Carlos Gonzales, California MESA and Amanda Fabian, Maryland MESA

*Session 3, Time:* 2:00 PM-2:55 PM

The last 2 years have been full of challenges. Hear from teachers in CA and MD about successes and challenges they faced and how they overcame them.

**MESA USA CLOSING REMARKS**

*Presented By:* MESA USA Curriculum Committee

*Time:* 3:00 PM-3:30 PM

Completion and review of Day 1 and instructions for Day 2.

**Day 2 - June 21 - All times listed are MDT**

TIME-MDT	SESSION	
	<b>TRACK 1: Invention Education</b> Zoom Link: <a href="https://us06web.zoom.us/j/86329164263">https://us06web.zoom.us/j/86329164263</a> Meeting ID: 863 2916 4263	<b>TRACK 2: MESA in a Time of Uncertainty</b> Zoom Link: <a href="https://us06web.zoom.us/j/84830044451">https://us06web.zoom.us/j/84830044451</a> Meeting ID: 848 3004 4451
<b>Session 4:</b>	From Curriculum to Implementation to Classroom: Lessons Learned, Perspectives Shared	What the Heck Do I Do? Planning and Doing the NEDC
<b>10:00 AM-10:55 AM</b>		
<b>11:00 AM-11:55 AM</b>	Alumni Panel 1: Rising Leaders in STEM Webinar Link: <a href="https://us06web.zoom.us/webinar/register/WN_F9hZAUzgTCaql9EaQXFakA">https://us06web.zoom.us/webinar/register/WN_F9hZAUzgTCaql9EaQXFakA</a>	
<b>12:00 PM-12:55 PM</b>	Alumni Panel 2: Established Leaders in STEM Webinar Link: <a href="https://us06web.zoom.us/webinar/register/WN_n7vZliPXTL6SjaakbbKEiw">https://us06web.zoom.us/webinar/register/WN_n7vZliPXTL6SjaakbbKEiw</a>	
<b>1:00 PM-2:00 PM</b>	BREAK	
<b>Session 5:</b>	InventOR: Oregon MESA Shares Curriculum and Answers Questions About Invention Education	Unpacking the NEDC Specs
<b>2:00 PM-2:55 PM</b>		
<b>3:00 PM-3:30 PM</b>	Closing Remarks: Curriculum Committee Zoom Link: <a href="https://us06web.zoom.us/j/85635251623">https://us06web.zoom.us/j/85635251623</a> Meeting ID: 856 3525 1623	

**From Curriculum to Implementation to Classroom: Lessons Learned, Perspectives Shared**

*Presented By:* Danielle Ladd, Rocky Mountain/Colorado MESA

*Session 4, Time:* 10:00 AM-10:55 AM

Stories of implementing Invent ED in Colorado.

**What the Heck Do I Do? Planning and Doing the NEDC**

*Presented By:* Carlos Gonzalez, California MESA

*Session 4, Time:* 10:00 AM-10:55 AM

Practical insight and strategies to run NEDC at your school.

**ALUMNI PANEL 1: RISING LEADERS IN STEM**

*Moderated By:* Ling Faith-Heuertz, NM MESA Director. *Facilitated By:* Thomas Ahn, CA MESA Director and Danielle McNamara, CA MESA

*Time:* 11:00 AM-11:55 AM

This panel will highlight MESA alumni in their early careers from across the country. This session is open to everyone. Panelists will share their MESA experiences, career journeys and how they have stayed involved with MESA after graduation.

*Featured Panelists:*

Dylan Moriarty: Geoscience Engineer, Sandia National Laboratories

Geoscience engineer Dylan Moriarty has been named the 2019 Most Promising Engineer or Scientist by the American Indian Science and Engineering Society. The award is given to an American Indian, Alaska Native, Native Hawaiian, Pacific Islander, First Nations and other indigenous person of North America with less than five years of work experience since his or her last degree. A member of the Navajo Nation, Moriarty joined the team of geoscientists at Sandia National Laboratories in 2014. He specializes in spatial statistics and data analytics, a field he first learned during his undergraduate internship at the labs. "It's a toolset that can be used for various engineering problems," Moriarty said.

Stephanie Rosales: Electrical Engineer, Starlink Team at SpaceX

Stephanie Rosales is an electrical engineer on the Starlink team at SpaceX, providing the world with fast, accessible internet. She previously owned quality assurance for performance and compatibility on the game VALORANT at Riot Games, where she joined the Diversity and Inclusion Council and supported accessibility features. Before this, she worked in QA on The Last of Us Part II at Naughty Dog. Stephanie was involved with MESA at San Francisco State University where she earned a degree in electrical engineering.

Tytan Taliaferro: Software Engineer, John Hopkins University Applied Physics Laboratory

Tytan Taliaferro is a Software Engineer at the Johns Hopkins University Applied Physics Laboratory specializing in system software design and analysis. He recently graduated with his Bachelors of Science in Computer Science with a focus in Software Engineering and a minor in Leadership Studies from the University of Maryland, College Park. Prior to graduating, he developed technical interests through summer enrichment programs for robotics and programs like MESA!

### **ALUMNI PANEL 2: ESTABLISHED LEADERS IN STEM**

*Moderated By:* Dr. Tong Zhang, OR MESA Director. *Facilitated By:* Thomas Ahn, CA MESA Director and Danielle McNamara, CA MESA

*Time:* 12:00 PM-12:55 PM

This panel will highlight MESA alumni that are later career professionals from across the country. This session is open to everyone. Panelists will share their MESA experiences, career journeys and how they have stayed involved with MESA after graduation.

#### *Featured Panelists:*

Tony Rodriguez: CTO, Digimarc

Tony Rodriguez is the CTO at Digimarc, a company that specializes in powering digital transformation by providing and managing unique identities via their Product Cloud platform. Tony Rodriguez oversees research at Digimarc and has a background in image processing, human perception, and color theory. Prior to joining Digimarc, Tony worked at the Intel Architecture Labs and held a variety of co-op positions at the Jet Propulsion Laboratory (JPL) and IBM, all launched thanks to MESA arranging his first internship at Raytheon. Tony is the inventor on over 290 U.S. patents and author of multiple academic papers. He holds a B.S. in Electrical Engineering from the University of Washington. Tony participated in Washington MESA in high school and credits the program for sparking his interest and confidence in engineering.

Dr. R. Anthony Rolle: Dean, University of South Florida College of Education

Dr. Rolle is an experienced leader with more than two decades of professional service to the field of education, he has established a long-standing commitment to supporting student access for student academic success, faculty excellence in research and instruction, and increasing community engagement. A former professor and department chair at USF, Anthony returned to the College of Education after serving as dean of the Alan Shawn Feinstein College of Education & Professional Studies at the University of Rhode Island for four years. Prior to his tenure at the University of Rhode Island, he also held leadership positions at the University of Houston and Texas A&M University. Anthony is a nationally recognized scholar with expertise in K-12 education finance and economic policy. He has developed models to measure effectiveness and efficiency in public school systems, managed national and internationally recognized research projects for government and nonprofit organizations, increased endowed student scholarships, enhanced community partnerships, and supported faculty excellence in research and teaching on an international scale. Anthony participated in MESA as a student in California and has now helped to start MESA statewide programs in Rhode Island and Florida.

Dr. Gwen Perea Warniment: Director, New Mexico Legislative Education Study Committee

Gwen Perea Warniment, Ph.D., was recently selected as Director of the Legislative Education Study Committee at the New Mexico Legislature where she will be leading a team of policy analysts, developing proposed education legislation, and overseeing the LESC budget recommendation. She has over two decades of experience supporting public education where she has taught across the elementary to post-secondary landscape. Gwen also served as the Program Director for the Los Alamos National Laboratory Foundation assisting communities and rural school districts across New Mexico with initiatives that supported teacher growth and retention, socio-emotional support systems, and STEM professional learning for educators. She earned a bachelor's degree in English and Spanish from the University of New Mexico, a master's degree in Education with a specialty in Reading from Highlands, and a doctorate in Curriculum and Instruction with a specialty in Science, Technology, Education and Math (STEM) education from New Mexico State University. Gwen became a MESA member when STEM peaked her interest in middle school. She was able to learn skills such as robotics, coding, and public speaking from MESA that have translated to her successful career in public education.

### **InventOR: Oregon MESA Shares Curriculum and Answers Questions About Invention Education**

*Presented By:* Dr. Tong Zhang, Oregon MESA

*Session 5, Time:* 2:00 PM-2:55 PM

Oregon MESA shares vision of Invent Ed and answers questions for MESA staff/advisors.

### **Unpacking the NEDC Specs**

*Presented By:* Bill Mike and Manny Leon, Arizona MESA

*Session 5, Time:* 2:00 PM-2:55 PM

Work with members of the NEDC committee to understand deliverables for the competition.

### **MESA USA CLOSING REMARKS**

*Presented By:* MESA USA Curriculum Committee

*Time:* 3:00 PM-3:30 PM

Completion of event survey and final event remarks.