Virginia Military Institute • Center for Leadership and Ethics • Lexington, VA

Monday, 1 October – Wednesday, 3 October 2012

Math as the Gateway to STEM Success

All sessions will take place in Marshall Hall unless otherwise noted

Monday, 1 October 2012

Shuttles will run from 1:00 pm to 10:00 pm

9:00 am – 3:00 pm *Virginia Department of Education, Math SOL Institute (Separate Registration)*

1:00 pm – 5:00 pm Attendee Registration

3:00 pm – 4:00 pm Opening Session

Welcoming Ceremonies

- *Call to Order – Captain SL Rabern, U.S. Navy (retired), Virginia Military Institute*
- *Posting of the Colors – VMI Color Guard*
- *National Anthem*

Welcoming Remarks

- **General J. H. Binford Peay III, U.S. Army (Retired), Superintendent, Virginia Military Institute**

Opening Session

- **The Honorable Laura Fornash, Virginia Secretary of Education**
- **John A. Luke, Jr., Chairman and CEO, MeadWestvaco Corporation**
  Introduced by Brigadier General RL Green, Virginia Military Institute

4:00 pm – 5:00 pm Plenary Session I

- Preparing for a Strong Future in the 21st Century - The Students and Teachers Virginia Needs
  Cathy Seeley, Ph.D., author of *Faster Isn't Smarter: Messages About Math, Teaching, and Learning in the 21st Century* (2009)
  Introduced by Brigadier General RW Schneiter, Virginia Military Institute

5:00 pm – 7:00 pm Backyard Barbeque (Ticket Required)

7:45 pm – 9:00 pm Plenary Session II

- **Salman Khan, founder and faculty, Khan Academy and author, *The One World Schoolhouse: Education Reimagined* (Oct. 2012)**
  Introduced by Commander Daniel Joseph, Virginia Military Institute

Tuesday, 2 October 2012

Shuttles will run from 6:30 am to 7:30 pm

6:45 am – 7:45 am Breakfast and Registration

8:00 am – 9:15 am Plenary Session III

- **Inquiry-Based Learning: a Prelude**
  MAJ Randall Cone, Ph.D., Assistant Professor & Director of Mathematics Education Resource Center (MERC), Department of Applied Mathematics and Computer Science, Virginia Military Institute
  Introduced by MAJ Meagan Herald, Ph.D., Assistant Professor, Department of Applied Mathematics and Computer Science, Virginia Military Institute
  Commentary by Ms. Deborah Crawford, Math Supervisor, Frederick County Schools

9:25 am – 10:40 am Breakout Session A *(see page three)*
10:50 am – 12:05pm Breakout Session B *(see page three)*

12:05 pm – 12:55 pm Box Lunch

1:00 pm – 2:15 pm Breakout Session C *(see page three)*
2:25 pm – 3:40 pm Breakout Session D *(see page three)*

3:45 pm – 5:00 pm Plenary Session IV

- Leveraging Technology to Reimagine Learning
  Richard Culatta, deputy director, Office of Educational Technology, U.S. Department of Education
  Introduced by Colonel Troy Siemers, Virginia Military Institute

5:15 pm – 6:30 pm Dinner (Ticket Required)

Wednesday, 3 October 2012
Shuttles will be running from 6:30 am to 2:30 pm
6:45 am – 7:45 am Breakfast/Visit Exhibit Hall

8:00 am – 9:00 am Plenary Session V

- **Patricia Wright, Ed.D., Superintendent of Public Instruction, Virginia Department of Education**
  Introduced by Captain Susan J. Rabern, U.S. Navy (retired), Virginia Military Institute

9:10 am – 10:00 am Breakout Session E *(see page three)*
10:10 am – 10:55 am Breakout Session F *(see page three)*

11:05 am – 12:15 pm Plenary Session VI (Cameron Hall)

- Improving and Increasing Science, Technology, Engineering, and Mathematics Education in the U.S.
  Neil deGrasse Tyson, Ph.D., director, Hayden Planetarium, American Museum of Natural History

12:15 pm – 1:00 pm Box Lunch on the Go (Ticket Required)
1:00 pm – 1:50 pm Book Signing with Dr. Neil DeGrasse Tyson (Marshall Hall 2nd Floor Lounge)

Conference Bookstore Hours

Monday: 1:00 pm - 3:00 pm; 5:00 pm - 8:00 pm - Tuesday: 11:00 am - 2:00 pm - Wednesday: 7:30 am - 11:00 am

2012 VMI STEM Education Conference – Math as the Gateway to STEM Success

Tracks and Breakout Sessions

confirmed presenter list, please see pages 9 and 10

Tracks *(Various locations on VMI Post)*	**Tuesday, 2 October**				**Wednesday, 3 October**	
	Session A 9:25am – 10:40am	Session B 10:50am – 12:05pm	Session C 1:00pm – 2:15pm	Session D 2:25pm – 3:40pm	Session E 9:10am – 10:00am	Session F 10:10am – 10:55am
One **K-20 Digital Learning** *(p. 4)*	A Snapshot of the New Horizon in Teaching and Learning	Personalized Learning and the Flipped Classroom	Learning Analytics: Can Big Data Help Improve Student Learning?	Open Education Resources in Everyone's Future	Strategies for Adopting Digital Resources	
Two **High School Student STEM Experience** *(pp. 4-5)*	Cutting Edge Research: Jellyfish Robotics & 3-D Printing	STEM Workshops	STEM Workshops	STEM Workshops	Envisioning Your Career	Are You a Leader or a Follower?
Three **K-12 Initiatives** *(p. 6)*	The 2009 Math SOLs: Instruction and Assessment Implications	Impact of Mathematics Specialists on K-8 Student Learning	School Principals and Mathematics Specialists	STEM/STEAM Academies	Applied Math in the New Capstone Course	Student Growth: What Works, What Doesn't, What's Next
Four **K-12 Math Teaching & Learning** *(p. 7)*	Connecting Fractions and Algebra	Inquiry-Based Learning	Math Discourse in the Classroom	Developing, Selecting, and Using Apps	Student Learning: Research Findings from Across Virginia	
Five **Undergraduate Math Education** *(p. 8)*	The Beauty of Math	Integrating Applied Math into Class and Curriculum	Applied Math: Solving Real World Problems	College Math Readiness	Internships: Jumpstarting Your Career	Mentoring and Career Development

Track One: K-20 Digital Learning

Locations on VMI Post

Tuesday, 2 October

Session A *(9:25 am – 10:40 am) Moody Hall Activities Room*

A Snapshot of the New Horizon in Teaching and Learning

Moderator: Mr. Christopher McGrath, Calculus Teacher, Rockbridge County High School

- **Flying Pigs!: The Affordances of Modern Computing and the Possibilities for Teaching and Learning**
  Dr. Jonathan Becker, Assistant Professor, Department of Educational Leadership, Virginia Commonwealth University
- **Technology Trends in K12 –** Ms. Maribeth Luftglass, Assistant Superintendent and Chief Information Officer, Fairfax County Public Schools

Session B *(10:50 am – 12:05 pm) Moody Hall Activities Room*

Personalized Learning and the Flipped Classroom

Moderator: Mr. Ernie Almanza, Math Teacher, Lylburn Downing Middle School

- Mr. Rupert Cox, Math Teacher, Blacksburg Middle School
- Mr. Ernie Longworth, Manager of Instructional Technology, Chesterfield County Public Schools

Lunch *(12:05 pm – 12:55 pm)*

Session C *(1:00 pm – 2:15 pm) Moody Hall Activities Room*

Learning Analytics: Can Big Data Help Improve Student Learning?

Moderator: Dr. Chris Bachmann, Associate Professor of Integrated Science and Technology, James Madison University

- Dr. Marie Bienkowski, Deputy Director, Center for Technology and Learning, SRI International

Session D *(2:25 pm – 3:40 pm) Pogue Auditorium, George C. Marshall Museum*

Open Education Resources in Everyone's Future

Moderator: LTC Gregory Hartman, Ph.D., Associate Professor, Department of Applied Mathematics and Computer Science, Virginia Military Institute

- **An Overview of OER: Defining Open Educational Resources –** Ms. Marie Highby, Co-Director of Consulting, Open Doors Group
- Mr. Tom Woodward, Assistant Director, Instructional Technology, Henrico County Schools

Wednesday, 3 October

Session E & F *(9:10 am – 10:55 am) Moody Hall Activities Room*

Strategies for Adopting Digital Resources

Moderator: LTC Tim Dowling, Ph.D., Associate Professor of History, Online Course Review Committee, Virginia Military Institute

- **Addressing Instructional Challenges with Technology: Research and Practice in Higher Education –** Dr. Brandon Bucy, Senior Academic Technologist, Washington and Lee University
- **Preparing to Adopt Technology Resources: Backward Design Isn't Just for Teaching**
  Ms. Jean Weller, Educational Technology Specialist, Virginia Department of Education

Track Two: High School Student STEM Experience

Locations on VMI Post

Tuesday, 2 October

Session A *(9:25 am – 10:40 am) Moody Hall Board Room*

Cutting Edge Research

Moderator: LTC George M. Brooke IV, Ph.D., Associate Professor of Physics & Astronomy, Virginia Military Institute

- **Jellyfish Robotics** - Mr. Alex Villanueva, Ph.D. Candidate, Mechanical Engineering, Virginia Polytechnic Institute and State University
- **3-D Printing –** Mr. Jacob Moore, Graduate Student, Department of Engineering Education, Virginia Polytechnic Institute and State University

Session B *(10:50 am – 12:05 pm)*

STEM Workshops

- **How to Keep the Lights On** *(Preston 300-Level Conference Room)* – Brian Gardes, P.E., Electrical Engineer, New Plant Engineering, AREVA NP, INC.
- **Making Waves** *(Mallory 220)*– COL John Thompson, Ph.D., Department Head, Department of Physics and Astronomy, Virginia Military Institute; Grigg Mullen III '08, Lab Mechanic, Department of Physics & Astronomy, Virginia Military Institute
- **Biomedical Research and Ethics** *(Mallory 211)* – COL James Turner, Ph.D., Department Head & Professor, Biology Department, Virginia Military Institute; VMI Cadet
- **3-D Printing** *(Moody Board Room)* **–** Mr. Jacob Moore, Graduate Student, Department of Engineering Education, Virginia Polytechnic Institute and State University

Session C *(1:00 pm – 2:15 pm)*

STEM Workshops

- **LEGO Engineering** *(Nichols 419)* **–** MAJ Joyce Blandino, Ph.D., Assistant Professor, Department of Mechanical Engineering, Virginia Military Institute
- **Fractals: An Infinite Walk Between Dimensions** *(Preston 300-Level Conference Room)* – MAJ Meagan Herald, Ph.D., Assistant Professor, Department of Applied Mathematics and Computer Science, Virginia Military Institute; VMI Cadets
- **What Makes a Good Technical Demonstration** *(Mallory 135)***–** CAPT Ned Riester, Professor, Department of Civil & Environmental Engineering, Virginia Military Institute
- **Voyageur in the 4th Dimension** *(Moody Board Room)*– Dr. Paul D. Humke, Professor of Mathematics, St. Olaf College; Washington and Lee University Students

Session D *(2:25 pm – 3:40 pm)*

STEM Workshops

- **Graph Theory & Kidney Transplants** *(Moody Board Room)*– Dr. Sommer Gentry, Associate Professor, Mathematics, U.S. Naval Academy
- **Cryptology: From Caesar to Credit Cards** *(Preston 300-Level Conference Room)* – MAJ Meagan Herald, Ph.D., Assistant Professor, Department of Applied Mathematics and Computer Science, Virginia Military Institute; VMI Cadets
- **Math Circles Rope Challenge** *(Mallory 313)*– Dr. Philip Yasskin, Professor of Mathematics, Texas A&M University

Wednesday, 3 October

Session E *(9:10 am – 10:00 am) Moody Hall Board Room*

Envisioning Your Career

Moderator: COL Daren Timmons, Ph.D., Professor and Chair, Chemistry Department, Virginia Military Institute

- Dr. Anthony Falcone, Program Manager, Defense Sciences Office, The Defense Advanced Research Projects Agency (DARPA)
- Ms. Meredith Allin, Senior Process Diagnostics Engineer, MeadWestvaco Corporation

Session F *(10:10 am – 10:55 am) Moody Hall Board Room*

Are You a Leader or a Follower?

- 2nd Lt Jordan Iida '12 (U.S.M.C.), Center for Leadership and Ethics, Virginia Military Institute
- VMI Cadets

Track Three: K-12 Initiatives

Locations on VMI Post

Tuesday, 2 October

Session A *(9:25 am – 10:40 am) Gillis Theater, Marshall Hall*

The 2009 Math SOLs: Instruction and Assessment Implications

Moderator: Mr. Scott Jefferies, Principal, Rockbridge County High School

- Amy Siepka, Assessment Development Coordinator , Virginia Department of Education
- Ms. Christa Southall, Mathematics Specialist, Virginia Department of Education

Session B *(10:50 am – 12:05 pm) Turman Room, Preston Library*

Impact of Mathematics Specialists on K-8 Student Learning

Moderator: Ms. Cindy Crance, Director of Instruction, Rockbridge County Public Schools

- Dr. William Haver, Professor, Department of Mathematics, Virginia Commonwealth University
- Ms. Vickie Inge, Director, Mathematics Outreach, University of Virginia School of Continuing and Professional Studies
- Ms. Corinne Magee, Instructional Coach, C. Frances Hammond Middle School
- Ms. Contina Martin, Math Instructional Specialist K-6, Portsmouth Public Schools
- Ms. Fanya Morton, K-8 Mathematics Specialist, King George County Schools

Lunch *(12:05 pm – 12:55 pm)*

Session C *(1:00 pm – 2:15 pm) Turman Room, Preston Library*

School Principals and Mathematics Specialists Teaming to Improve K-8 Student Achievement

Moderator: Ms. Cindy Crance, Director of Instruction, Rockbridge County Public Schools

- Dr. William Haver, Professor, Department of Mathematics, Virginia Commonwealth University
- Ms. Vandi Hodges, Mathematics Coordinator, Hanover County Public Schools
- Ms. Pat Robertson, Mathematics Supervisor, Arlington Public Schools

Session D *(2:25 pm – 3:40 pm) Moody Hall, Activities Room*

STEM/STEAM Academies

Moderator: Mr. Scott Jefferies, Principal, Rockbridge County High School

- **Creating a STEM Program in Your High School** – Mr. Jeff Prillaman, Math Engineering and Science Academy, Albemarle High School
- Ms. M. Caroline Martin, Co-founder, Virginia STEAM Academy
- Mr. George Willcox, CTE Cluster Coordinator, Virginia Department of Education

Wednesday, 3 October

Session E *(9:10 am – 10:00 am) Gillis Theater, Marshall Hall*

Applied Math in the New Capstone Course

Moderator: Mr. Scott Jefferies, Principal, Rockbridge County High School

- Ms. Vickie Inge, Director, Mathematics Outreach, University of Virginia School of Continuing and Professional Studies
- Ms. Diane Leighty, Mathematics Educator and Consultant, ECPI University and University of Virginia
- Ms. Javornda Ashton, Teacher, Northumberland High School

Session F *(10:10 am – 10:55 am) Gillis Theater, Marshall Hall*

Student Growth, Professional Evaluation, & Strategic Compensation: What Works, What Doesn't, What's Next

Moderator: Mr. Bill Berry, Director of K-5 Instruction, Orange County Public Schools

- Dr. Alan Seibert, Superintendent, Salem City Public Schools

Track Four: K-12 Math Teaching and Learning

Locations on VMI Post

Tuesday, 2 October

Session A *(9:25 am – 10:40 am) Turman Room, Preston Library*

Connecting Fractions and Algebra

Moderator: COL Vonda Walsh, Ph.D., Professor of Mathematics, Virginia Military Institute

- Dr. Anderson Norton, Associate Professor, Mathematics Education, Virginia Polytechnic Institute and State University

Session B *(10:50 am – 12:05 pm) Gillis Theater, Marshall Hall*

Curricular Design for Inquiry-Based Learning: Lessons from 6-12 Classrooms

Moderator: MAJ Randall Cone, Ph.D., Assistant Professor & Director of Mathematics Education Resource Center (MERC), Department of Applied Mathematics and Computer Science, Virginia Military Institute

- Ms. Deborah Crawford, Math Supervisor, Frederick County Schools

Lunch *(12:05 pm – 12:55 pm)*

Session C *(1:00 pm – 2:15 pm) Gillis Theater, Marshall Hall*

Speaking Math: Engaging Students and Deepening Understanding

Moderator: Dr. Glen H. Stark, Contractor, Virginia Department of Education

- Dr. Jennifer Mossgrove, Mathematics Teacher Developer, Knowles Science Teaching Foundation

Session D *(2:25 pm – 3:40 pm) Gillis Theater, Marshall Hall*

Developing, Selecting, and Using Apps

Moderator: Col Mac Baker, Ph.D., Department of Applied Mathematics and Computer Science, Virginia Military Institute

- Ms. Janet Copenhaver, Director of Technology, Henry County Public Schools
- Mr. Peter T. Malcolm, Doctoral Fellow, Curry School of Education, University of Virginia
- Dr. Michael Evans, Associate Professor and Program Area Leader, Instructional Design and Technology, Virginia Polytechnic Institute and State University

Wednesday, 3 October

Session E & F *(9:10 am –10:55 am) Pogue Auditorium, George C. Marshall Museum*

Student Learning: Research Findings from Across Virginia

Moderators: Mark Sterling, 5th Grade Teacher, Waddell Elementary School; Kevin Kendall, Gifted and Talented Coordinator, Lexington City Schools

- **Mathematics Learning and Identity: A Look at Black Undergraduate Students' Experiences** – Dr. Oren McClain, Assistant Dean of the Office of African American Affairs, University of Virginia
- **Math Academy Outcomes** - Dr. Marguerite Mason, Department of Mathematics, College of William & Mary
- **Update on Virginia Initiative for Science Teaching and Achievement** – Mr. Patrick Linehan and Ms. Nancy Alexander, VISTA, George Mason University
- **Developing Specialized Content Knowledge: A Different Kind of Mathematics Course for Prospective Teachers –** Dr. LouAnn Lovin, Professor, Department of Mathematics and Statistics, James Madison University

Track Five: Undergraduate Math Education

Locations on VMI Post

Tuesday, 2 October

Session A *(9:25 am – 10:40 am) Pogue Auditorium, George C. Marshall Museum*

The Beauty of Math

Moderator: COL Troy Siemers, Ph.D., Professor of Mathematics & Department Head, Virginia Military Institute

- **A Voyageur in the 4th Dimension** – Dr. Paul Humke, Professor of Mathematics, St. Olaf College
- **The Musical Side of Mathematics** – Dr. Ezra "Bud" Brown, Alumni Distinguished Professor of Mathematics, Virginia Tech

Session B *(10:50 am – 12:05 pm) Pogue Auditorium, George C. Marshall Museum*

Integrating Applied Math into Class and Curriculum

Moderator: Ms. M. Caroline Martin, Co-founder, Virginia STEAM Academy

- **N.C. State Research Experiences for Undergraduates in Mathematics: Modeling and Industrial Applied Mathematics** – Dr. Hien Tran, Professor and Associate Department Head, Mathematics, N.C. State University
- **Undergraduates' Work with Government and Industry** – MAJ John David, Ph.D., Assistant Professor, Department of Applied Mathematics and Computer Science, Virginia Military Institute

Lunch *(12:05 pm – 12:55 pm)*

Session C *(1:00 pm – 2:15 pm) Pogue Auditorium, George C. Marshall Museum*

Applied Math: Solving Real World Problems

Moderator: MAJ John David, Ph.D., Department of Applied Mathematics and Computer Science, Virginia Military Institute

- **Operations Research: Faster, Safer, Healthier** – Dr. Sommer Gentry, Associate Professor, Mathematics, U.S. Naval Academy
- **Computational Simulation of Piracy Detection off the Horn of Africa** – VMI Cadets

Session D *(2:25 pm – 3:40 pm) Turman Room, Preston Library*

College Math Readiness

Moderator: Ms. Jennifer Hall, Math Teacher and Department Chair, Rockbridge County High School

- MAJ Randall Cone, Ph.D., Associate Professor & Director of Mathematics Education Resource Center (MERC), Department of Applied Mathematics and Computer Science, Virginia Military Institute
- **Developmental Math Redesign in Virginia's Community Colleges –** Ms. Jane Serbousek, Assistant Professor, Mathematics, Northern Virginia Community College
- Dr. Rebecca Segal, Assistant Professor, Department of Mathematics, Virginia Commonwealth University

Wednesday, 3 October

Session E *(9:10 am – 10:00 am) Turman Room, Preston Library*

Internships: Jumpstarting Your Career

Moderator: LTC Stan Smith, Ph.D., Department of Chemistry, Virginia Military Institute

- Mr. Michael Hicks, Manager, Security Department, B&W Nuclear Operations Group-Lynchburg
- Mr. Drew Wade, Quality Control Engineer, B&W Nuclear Operations Group-Lynchburg

Session F *(10:10 am – 10:55 am) Turman Room, Preston Library*

Mentoring and Career Development

Moderator: COL Daren Timmons, Ph.D., Professor and Chair, Chemistry Department, Virginia Military Institute

- Dr. Anthony Falcone, Program Manager, Defense Sciences Office, The Defense Advanced Research Projects Agency (DARPA)
- Ms. Meredith Allin, Senior Process Diagnostics Engineer, MeadWestvaco Corporation

Breakout Session and Workshop Presenters

- Meredith Allin, Senior Process Diagnostics Engineer, MeadWestvaco Corporation (Two E & Five F)
- Nancy Alexander, Curriculum Specialist, VISTA, Virginia Commonwealth University (Four E & F)
- Javornda Ashton, Algebra Teacher, Northumberland High School (Three E)
- Jonathan Becker, J.D., Ph.D., Assistant Professor, Department of Educational Leadership, Virginia Commonwealth University (One A)
- Marie Bienkowski, Ph.D., Deputy Director, Center for Technology and Learning, SRI International (One C)
- MAJ Joyce Blandino, Ph.D., Assistant Professor, Department of Mechanical Engineering, Virginia Military Institute (Workshop)
- Ezra "Bud" Brown, Ph.D., Alumni Distinguished Professor, Department of Mathematics, Virginia Tech (Five A)
- Brandon R. Bucy, Ph.D., Senior Academic Technologist, Information Technology Services, Washington and Lee University (One E)
- MAJ Randall Cone, Ph.D., Associate Professor & Director of Mathematics Education Resource Center (MERC), Department of Applied Mathematics and Computer Science, Virginia Military Institute (Five D)
- Janet Copenhaver, Director of Technology, Henry County Public Schools (Four D)
- Rupert Cox, Math Teacher, Blacksburg Middle School (One B)
- Deborah Crawford, Math Supervisor, Frederick County Schools, Virginia (Four B)
- MAJ John David, Ph.D., Assistant Professor, Department of Applied Mathematics and Computer Science, Virginia Military Institute (Five B)
- Michael Evans, Ph.D., Associate Professor & Program Area Leader, Instructional Design and Technology, Virginia Polytechnic Institute and State University (Four D)
- Anthony Falcone, Ph.D., Program Manager, Defense Sciences Office, The Defense Advanced Research Projects Agency (DARPA) (Workshop; Five F)
- Brian Gardes, P.E., Electrical Engineer, New Plant Engineering, AREVA NP, INC. (Workshop)
- Sommer Gentry, Ph.D., Associate Professor, Mathematics, U.S. Naval Academy (Workshop; Five C)
- William E. Haver, Ph.D., Professor, Department of Mathematics, Virginia Commonwealth University (Three B & C)
- MAJ Meagan Herald, Ph.D., Assistant Professor, Department of Applied Mathematics and Computer Science, Virginia Military Institute (Workshop)
- Michael E. Hicks, Manager, Security Department, Babcock and Wilcox Canada, Ltd. (Five E)
- Marie Highby, Co-Director of Consulting, Open Doors Group (One D)
- Vandi Hodges, Mathematics Coordinator, Hanover County Public Schools (Three C)
- Paul Humke, Professor of Mathematics, St. Olaf College (Workshops & Five A)
- 2nd Lt Jordan Iida '12 (U.S.M.C.), Center for Leadership and Ethics, Virginia Military Institute (Two E)
- Vickie Inge, Director, Mathematics Outreach, University of Virginia School of Continuing and Professional Studies (Three B)
- Diane Leighty, Mathematics Educator and Consultant, ECPI University and University of Virginia (Three E)
- Patrick Linehan, Chief Operating Officer, VISTA, George Mason University (Four E)
- Ernie Longworth, Manager of Instructional Technology, Chesterfield County Public Schools (One B)
- LouAnn Lovin, Professor, Department of Mathematics and Statistics, James Madison University (Four E)
- Maribeth Luftglass, Assistant Superintendent and Chief Information Officer, Fairfax County Public Schools (One A)
- Corinne Magee, Instructional Coach, C. Frances Hammond 2 Middle School, Alexandria, Virginia Public Schools (Three B)
- Peter T. Malcolm, Doctoral Fellow, Curry School of Education, University of Virginia (Four D&E)
- Caroline Martin, Co-Founder, Virginia STEAM Academy (Three D)
- Contina Martin, Math Instructional Specialist K-6, Portsmouth Public Schools (Three B)
- Marguerite Mason, Ph.D., Department of Mathematics, College of William & Mary (Four E)
- Oren McClain, Ph.D., Assistant Dean, Office of African American Affairs, University of Virginia (Four F)

- Jacob Moore, Graduate Student, Department of Engineering Education, Virginia Polytechnic Institute and State University (Workshops)
- Fanya Morton, K-8 Mathematics Specialist, King George County Schools (Three B)
- Jennifer Mossgrove, Ph.D., Mathematics Teacher Developer, Knowles Science Teaching Foundation (Four C)
- Grigg Mullen III, Lab Mechanic, Department of Physics and Astronomy, Virginia Military Insitute (Workshop)
- Anderson Norton III, Ph.D., Associate Professor, Mathematics, Education, Virginia Polytechnic Institute and State University (Four A)
- Jeff Prillaman, Director, Math Engineering and Science Academy, Albemarle High School (Three D)
- CAPT Ned Riester, Professor, Department of Civil and Environmental Engineering, Virginia Military Institute (Workshop)
- Pat Robertson, Mathematics Supervisor, Arlington Public Schools (Three E)
- Rebecca Segal, Ph.D., Assistant Professor, Department of Mathematics, Virginia Commonwealth University (Five D)
- Alan Seibert, Superintendent, Salem City Public Schools (Three F)
- Jane Serbousek, Assistant Professor, Mathematics, Northern Virginia Community College (Five D)
- Amy Siepka, Assessment Development Coordinator, Virginia Department of Education (Three A)
- Christa Southall, Mathematics Specialist, Virginia Department of Education (Three A)
- COL John R. Thompson, Ph.D., Department Head, Physics and Astronomy, Virginia Military Institute (Workshop)
- COL James Turner, Ph.D., Department Head and Professor, Biology, Virginia Military Institute (Workshop)
- Hien Tran, Ph.D., Professor of Mathematics and Associate Head Department of Mathematics, North Carolina State University (Five B)
- Alex Villanueva, Ph.D. Candidate, Mechanical Engineering, Virginia Polytechnic Institute and State University (Workshop)
- M. Drew Wade, Quality Control Engineer, B&W Nuclear Operations Group-Lynchburg (Five E)
- Jean Weller, Educational Technology Specialist, Virginia Department of Education (One E)
- George Willcox, CTE Cluster Coordinator, Virginia Department of Education (Three D)
- Tom Woodward, Assistant Director, Instructional Technology, Henrico County Schools (One D)
- Philip Yasskin, Ph.D., Professor of Mathematics, Texas A&M University (Workshop)

Moderators

- Ernie Almanza, Math Teacher, Lylburn Downing Middle School
- Chris Bachmann, Associate Professor of Integrated Science and Technology, James Madison University
- Col Mac Baker, Ph.D., Department of Applied Mathematics and Computer Science, Virginia Military Institute
- Bill Berry, Director of K-5 Instruction, Orange County Public Schools
- LTC George M. Brooke IV, Ph.D., Associate Professor of Physics & Astronomy, Virginia Military Institute
- MAJ Randall Cone, Ph.D., Associate Professor & Director of Mathematics Education Resource Center (MERC), Department of Applied Mathematics and Computer Science, Virginia Military Institute
- Cindy Crance, Director of Instruction, Rockbridge County Public Schools
- MAJ John David, Ph.D., Department of Applied Mathematics and Computer Science, Virginia Military Institute
- LTC Tim Dowling, Ph.D., Associate Professor of History, Online Course Review Committee, Virginia Military Institute
- Jennifer Hall, Teacher and Department Chair, Mathematics, Rockbridge County High School
- LTC Gregory Hartman, Ph.D., Associate Professor, Department of Applied Mathematics and Computer Science, Virginia Military Institute
- Scott Jefferies, Principal, Rockbridge County High School
- Kevin Kendall, Gifted and Talented Coordinator, Lexington City Schools

- M. Caroline Martin, Co-founder, Virginia STEAM Academy
- Chris McGrath, Calculus Teacher, Rockbridge County High School
- COL Troy Siemers, Ph.D., Department of Applied Mathematics and Computer Science, Virginia Military Institute
- LTC Stan Smith, Ph.D., Department of Chemistry, Virginia Military Institute
- Glen H. Stark, Contractor, Virginia Department of Education
- Mark Sterling, 5th Grade Teacher, Waddell Elementary School
- COL Daren Timmons, Ph.D., Professor and Chair, Chemistry Department, Virginia Military Institute
- COL Vonda Walsh, Ph.D., Professor, Department of Applied Mathematics and Computer Science, Virginia Military Institute