# Table of Contents

## GENERAL INFORMATION
- Conference Information .................................................. 3
- Conference Committee ....................................................... 4
- About ASCN ........................................................................... 5
- Hotel and Area Information .................................................. 6
- Presentation Guidelines ....................................................... 7
- Abstract Reviewers ............................................................. 8
- At-a-Glance Conference Schedule ......................................... 9
- Conference Maps ............................................................... 10-11

## PROGRAM DETAILS
- Plenary Sessions ..................................................................... 12-13
- Panel on Funding Institutional Change ................................... 14
- Tracks and Discussion Sessions ............................................. 15
- Conference Program
  - Wednesday, April 3 ............................................................. 16
  - Thursday, April 4 ............................................................... 17-20
  - Friday, April 5 ................................................................. 21
- Poster Presentations ........................................................... 22
- Website Information ........................................................... 23
The Accelerating Systemic Change Network (ASCN) invites you to join us for the 2019 Transforming Institutions Conference. This conference will bring together researchers, faculty, change agents, administrators, and policymakers to focus on transforming undergraduate education. We will address critical questions related to institutional change in higher education and foster connections between researchers and change agents across fields. We intend to provide opportunities for cross-disciplinary discussion and collaboration as we work together to bring about institutional change and to define the future of this work.

The Transforming Institutions Conference's diversity of presentations, workshops, panel discussions, and plenary presentations is designed to address important topics in institutional change and transformation by:

- bringing together researchers, change agents, administrators, and policymakers to focus on transforming undergraduate education;
- inviting and incorporating diverse participation, drawing from a wide range of disciplines;
- creating a space where people can see how their work interacts and overlaps across disciplines;
- encouraging discussion in order to identify key questions regarding change in higher education;
- featuring both early and mature projects, which may focus on outcomes as well as processes and contexts of change;
- creating an opportunity for team formation and development, encouraging team builders to consider levels of power and buy-in as needed for change;
- providing space for discussion, engagement, and network development.

Registration Information

Registration will be located on the First Floor. When the desk is not open, there will be instructions for how to contact conference staff. The Registration desk will be open during the following times:

- Wednesday 12:00 p.m. - 4:30 p.m.
- Thursday 7:30 a.m. - 8:00 a.m.
  9:30 a.m. - 10:00 a.m.
  2:45 p.m. - 3:30 p.m.
- Friday 9:00 a.m. - 9:30 a.m.
  11:00 a.m. - 11:15 a.m.
Conference Committee

**ASCN Team**
Andrea Beach, Western Michigan University  
Charles Henderson, Western Michigan University  
Scott Simkins, North Carolina A&T State University  
Linda Slakey, University of Massachusetts-Amherst  
Caroline Ray, Western Michigan University  
Jaclyn Rivard, Western Michigan University  
Kate White, Western Michigan University

**Conference Planning Committee**
Gita Bangera, Bellevue College  
Calvin Briggs, Lawson State Community College  
Anthony DePass, Long Island University  
Susan Elrod, University of Wisconsin - Whitewater  
Emily Miller, Association of American Universities  
Pamela Leggett-Robinson, PLR Consulting  
Ruthmae Sears, University of South Florida  
Gabriela Weaver, University of Massachusetts - Amherst

**SERC Team**
Mitchell Awalt, Carleton College  
Andrew Haveles, Carleton College  
Cailin Huyck Orr, Carleton College
About Us

The Accelerating Systemic Change Network (ASCN) is an open, interdisciplinary, professional network and intellectual home for individuals and groups in a broad range of disciplines who are engaged in creating and/or studying change in higher education.

Overarching Principles

- Systems thinking
- Serving all students
- Breadth of perspective

ASCN Goals

- Establish a community of change agents and researchers
- Generate, curate, and distribute knowledge about promoting, supporting and accelerating change
- Promote and support institutional change

Structure and Organization

The Hub supports the development of the network and the work of its members. The Steering Committee provides strategic guidance and support for the intellectual work of the network. The Working Groups are member-led and on key topics in systemic change. Membership is open to anyone engaged in creating and/or studying change in higher education. ASCN connects and provides an intellectual home for researchers and change agents working on change in higher education. We hope you’ll join us!

ASCN has received funding from the Helmsley Charitable Trust and the National Science Foundation. In-kind support has been provided by the Sloan Foundation and the Howard Hughes Medical Institute.

ASCN Working Groups

- Working Group 1: Guiding Theories - leading the related conference track
  How can theories and models inform and support systemic change efforts?
- Working Group 2/4: Costs and Benefits & Demonstrating Impact
  What are the costs and benefits of change? How can measurement and communication promote change?
- Working Group 3: Change Leaders
  Who leads change and how?
- Working Group 5: Equity and Impact
  How can equity and inclusion serve as the foundation of systemic change?
- Working Group 6: Aligning Faculty Work with Systemic Change - leading the related conference track
  How can institutional policies promote sustainable change?

Learn more at bit.ly/ASCNGroups

http://ascnhighered.org  @ascnhighered  cricpe-ascn@wmich.edu
Hotel and Area Information

All events for the Transforming Institutions Conference will take place at the Sheraton Hotel at Station Square in Pittsburgh, PA. Sessions will convene on the first and second floors of the conference/meeting area of the hotel.

Station Square is a 1.2 mile complex on the southwest shore of the Monongahela River with entertainment, dining, attractions, and shopping. For more information, visit the Station Square website at stationsquare.com. More about Pittsburgh attractions, area restaurants, and local sights is available at VisitPittsburgh.com and on our conference website under Participant Information.

Within the hotel there are the following dining options:

- **Trackside**, American
  Get energized for a busy day of exploring Pittsburgh in our inviting restaurant. Take in postcard-quality views of downtown while you enjoy a delicious breakfast, join colleagues for lunch on a meeting break, or relax over dinner with the family.
  
  *Open for breakfast, lunch and dinner - Dress code: Casual - Reservations: +1 412-803-3824*

- **The Center Bar**, Other
  Grab a quick bite to eat in our stunning atrium lobby before heading off for a night of fun. The casual setting is ideal for after-work cocktails, or a light snack to keep you going as you get ready for another fun outing in Pittsburgh, Pennsylvania.
  
  *Open for lunch and dinner - Dress code: Casual*

- **Sheraton Cafe**, American
  Stop by our Café for freshly brewed Starbucks® coffee and made-to-order espresso drinks, perfect for jump-starting your day. Pack a picnic from our selection of grab-and-go food, or pick up a snack to satisfy a late-night craving.
  
  *Open for breakfast, lunch and dinner - Dress code: Casual*

Wi-Fi will be available in the conference area. See the registration table for connection information.
Presentation Guidelines

General Guidelines
All presenters are expected to present during their scheduled time. Conveners for thematic symposia and pre-conference workshops must keep track of time. For 25-minute presentations, session chairs will keep time.

Pre-Conference Workshops
Workshops require advance registration and are free to all attendees. They are scheduled for either 90 or 120 minutes in the afternoon of Wednesday, April 3. Participation in a workshop may include access to an online workspace.

Thematic Symposia
Symposia do not require advance registration and are open to all. They are scheduled for either 60 or 90 minutes throughout the day on Thursday, April 4. Participation in a workshop may include access to an online workspace.

25-Minute Presentations
All oral presentations will be held on Thursday, April 4. They are organized into 90-minute sessions of three presentations each. A session chair has been assigned to each session and is responsible for keeping time and facilitating questions from the audience at the end of each presentation. Please allow 5 minutes between each presentation within a session for transition.

Poster Presentations
The poster session will be held on Thursday, April 4, from 2:45 to 3:30 p.m. in the Admiral Room. Presenters are required to remain at their posters during this session and must take down their posters by 5:30 p.m.

For more information, see the presenter guidelines provided on the Conference site.

All presenters are encouraged to upload their presentations to the pages assigned to their presentation information on the Conference site. For more information on how to share your presentation, see ascnhighered.org/ASCN/transforming_institutions/2019/program/presentation_up.html
Thank you to the reviewers for the 2019 Transforming Institutions Conference.

Sarah E. Andrews, University of Colorado at Boulder
Naneh Apkarian, Western Michigan University
Ann E. Austin, Michigan State University
Gita Bangera, Bellevue Community College
Lisa Bosman, Purdue Polytechnic Institute
Marcos D. Caballero, Michigan State University
Joshua Caulkins, Arizona State University
Amy Chan-Hilton, University of Southern Indiana
Stephanie Chasteen, University of Colorado at Boulder
Daniel Collier, Western Michigan University
Sarah Cox, Western Michigan University
Cassie Donnelly, Sierra College
Sam Donovan, University of Pittsburgh
Brittnee Earl, Boise State University
Andrew Feig, Wayne State University
Matt Fisher, Saint Vincent College
Dan Fitzpatrick, Western Michigan University
Linnea Fletcher, Austin Community College
Stephanie Foster, George Mason University
Tam’ra-Kay Francis, University of Washington, Seattle
Kay Halasek, Ohio State University
Lucas Hill, University of Wisconsin-Madison
Anne-Barrie Hunter, University of Colorado at Boulder
Siny Joseph, Kansas State University
Matthew Kaplan, University of Michigan-Ann Arbor
A. Kelly Lane, University of Nebraska-Lincoln
Pamela Leggett-Robinson, PLR Consulting
Mitch Malachowski, University of San Diego
Gili Marbach-Ad, University of Maryland-College Park
Jim McCargar, Baldwin Wallace University
Courtney Ngai, The Institute for Learning and Teaching
Craig Ogilvie, Iowa State University
Daniel Reinholz, San Diego State University
Jaclyn Rivard, University of Minnesota and Western Michigan University
Sarah Ruffell, University of Pittsburgh-Bradford
Deena Salem, Queen’s University
Heather Seitz, Johnson County Community College
Susan E. Shadle, Boise State University
Shanna Shaked, University of California-Los Angeles
Jill Sible, Virginia Polytechnic Institute and State University
Kara Thoemke, College of St Scholastica
Katerina Thompson, University of Maryland-College Park
Chandra Turpen, University of Maryland-College Park
Sandra Vernon-Jackson, University Of South Florida St. Petesburg
Zipangani M. Vokhiwa, Mercer University
Lindsay Weinberg, Purdue University
Mary Wright, POD Network and Brown University
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wednesday, April 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00 - 4:30 p.m.</td>
<td>Registration Table Open</td>
<td>First Floor</td>
</tr>
<tr>
<td>1:00 - 4:00 p.m.</td>
<td>Pre-Conference Workshops</td>
<td>Session Rooms</td>
</tr>
<tr>
<td>4:30 - 5:45 p.m.</td>
<td>Plenary: Robin Wright</td>
<td>Admiral</td>
</tr>
<tr>
<td></td>
<td><em>We have no choice: Why systemic change must happen in undergraduate education</em></td>
<td></td>
</tr>
<tr>
<td>5:45 - 7:00 p.m.</td>
<td>Dinner &amp; Reception</td>
<td>Admiral</td>
</tr>
<tr>
<td><strong>Thursday, April 4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00 - 8:00 a.m.</td>
<td>Breakfast</td>
<td>Admiral</td>
</tr>
<tr>
<td>7:30 - 8:00 a.m.</td>
<td>Registration Table Open</td>
<td>First Floor</td>
</tr>
<tr>
<td>8:00 - 9:30 a.m.</td>
<td>Concurrent Sessions</td>
<td>Session Rooms</td>
</tr>
<tr>
<td>9:30 - 10:00 a.m.</td>
<td>Coffee Break</td>
<td>Admiral, First Floor</td>
</tr>
<tr>
<td></td>
<td>Registration Table Open</td>
<td>Admiral, First Floor</td>
</tr>
<tr>
<td>10:00 - 11:30 a.m.</td>
<td>Concurrent Sessions</td>
<td>Session Rooms</td>
</tr>
<tr>
<td>11:45 - 1:00 p.m.</td>
<td>Plenary: Kelly Mack</td>
<td>Admiral</td>
</tr>
<tr>
<td></td>
<td><em>That None Shall Perish</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>1:15 - 2:45 p.m.</td>
<td>Concurrent Sessions</td>
<td>Session Rooms</td>
</tr>
<tr>
<td>2:45 - 3:30 p.m.</td>
<td>Poster Session</td>
<td>Admiral, First Floor</td>
</tr>
<tr>
<td></td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Registration Table Open</td>
<td>Admiral, First Floor</td>
</tr>
<tr>
<td>3:30 - 5:00 p.m.</td>
<td>Concurrent Sessions</td>
<td>Session Rooms</td>
</tr>
<tr>
<td>5:15 - 5:30 p.m.</td>
<td>Meet with Dinner Groups</td>
<td>Near Registration</td>
</tr>
<tr>
<td><strong>Friday, April 5</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:30 - 9:30 a.m.</td>
<td>Breakfast</td>
<td>Admiral</td>
</tr>
<tr>
<td>9:30 - 11:00 a.m.</td>
<td>Panel on Funding Institutional Change</td>
<td>Admiral</td>
</tr>
<tr>
<td>11:00 - 11:15 a.m.</td>
<td>Coffee Break</td>
<td>Admiral</td>
</tr>
<tr>
<td>11:15 - 12:00 p.m.</td>
<td>Discussion Sessions</td>
<td>Fountainview</td>
</tr>
<tr>
<td></td>
<td><em>Track: Guiding Theories of Change</em></td>
<td>Brighton 1/2</td>
</tr>
<tr>
<td></td>
<td><em>Track: Aligning Incentives with Systemic Change</em></td>
<td>Brighton 3/4</td>
</tr>
<tr>
<td></td>
<td><em>Learning Spaces</em></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Session rooms include Brighton 1/2, Brighton 3/4, Fountainview, and Woodlawn I on the second floor, and Waterfront on the first floor.*
An asterisk (*) indicates that room is designated for use by the Transforming Institutions Conference.
We have no choice:
Why systemic change must happen in undergraduate education

The increasingly rapid pace of change in science and society make systemic change more critical in higher education than it has ever been. In this interactive presentation, spend some time visualizing where undergraduate education is heading, key change drivers we face, and how the two may intersect.
Plenary Session
Thursday, April 5, 11:45-1:00 p.m.

Kelly Mack,
Association of American Colleges
and Universities

Dr. Kelly Mack is the Vice President for Undergraduate STEM Education and Executive Director of Project Kaleidoscope at the Association of American Colleges and Universities (AAC&U). Prior to joining AAC&U, Dr. Mack was the Senior Program Director for the National Science Foundation ADVANCE Program while on loan from the University of Maryland Eastern Shore where, as a Professor of Biology, she taught courses in Physiology and Endocrinology for 17 years. Dr. Mack’s holistic approach to STEM reform is grounded in a strategic vision that foregrounds inclusion as an immutable factor for achieving excellence in undergraduate STEM education. Her leadership in STEM reform has produced over $15M in external funding – leading to significant increases in the capacity of STEM faculty to implement culturally responsive pedagogies, major shifts in the ways in which leadership development for STEM faculty is delivered, and the expansion of both physical and virtual convening platforms for knowledge generation, exchange, and dissemination. (See more on our site.)

That None Shall Perish

Addressing the nation’s need for a competitively trained, liberally educated, and diverse STEM workforce requires the kind of systemic change that represents a radical departure from our reliance on the mastery of initiative or intervention implementation. This is particularly true given the contemporary realities of higher education, which are now situated within a shifting sociopolitical context. In this presentation, Dr. Mack will discuss proven strategies for systemic change that provide institutions and the individuals within them opportunities to adapt a more dynamic stance whereby both are predisposed and positioned to desire, foster, recognize, and require the transformative actions and outcomes that are essential for inclusion and indistinguishable from excellence.
Panel on Funding Institutional Change
Opportunities and Challenges in the Funding Landscape
Friday, April 5, 9:30-11:00 a.m.

David Asai,
Senior Director for Science Education,
Howard Hughes Medical Institute

Andrea Nixon,
Program Director, Division of Undergraduate Education and Co-Lead, Improving Undergraduate STEM Education (IUSE) Program, National Science Foundation

Moderator: Gita Bangera
Dean, RISE Learning Institute,
Bellevue College
Washington State University
Tracks and Discussion Sessions

The Conference will feature 4 tracks. Tracks are organized around a series of symposia and presentations that relate strongly to a single theme. For two of the tracks (marked with *) there will be discussion session on Friday led by ASCN Working Group leaders. The track themes are:

- Guiding theories of change (ASCN Working Group 1)*
- Change leadership (ASCN Working Group 3)
- Equity and inclusion (ASCN Working Group 5)
- Aligning faculty incentives with systemic change (ASCN Working Group 6)*

Discussion Sessions - Friday, April 5, 11:15 a.m. - 12:00 p.m.

Guiding theories of change (ASCN Working Group 1)
Leaders: Tessa Andrews, University of Georgia
        Daniel Reinholz, San Diego State University
Join the leaders of ASCN Working Group 1, Tessa Andrews and Daniel Reinholz, for a discussion about the presentations in the “Guiding theories of change” Track and theories of change.

Aligning incentives with systemic change (ASCN Working Group 6)
Leaders: Christine Broussard, University of La Verne
        Emily Miller, Association of American Universities
Join the leaders of ASCN Working Group 6, Christine Broussard and Emily Miller, for a discussion about the presentations in the “Aligning faculty incentives with systemic change” Track and current relevant projects in the field.

Learning Spaces
Leaders: Andrea Beach, Western Michigan University
Join us as we discuss current projects relevant to the topic of learning spaces and the future of this work.
## Conference Program
### Wednesday, April 3

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00 - 4:30 p.m.</td>
<td>Registration table open</td>
<td>First Floor</td>
</tr>
<tr>
<td>1:00 - 4:00 p.m.</td>
<td>Pre-Conference Workshops</td>
<td>Brighton 1/2</td>
</tr>
<tr>
<td></td>
<td>• Using a Change Framework and Assessing Institutional Change: Lessons from Boise State University (Susan Shadle &amp; Brittnee Earl)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Advancing Diversity and Inclusion Through Multilevel Strategic Leadership (Kathy Takayama, Matthew Kaplan, &amp; Allison Cook-Sather)</td>
<td>Brighton 3/4</td>
</tr>
<tr>
<td></td>
<td>• Using the Change Dashboard to Conceptualize Change Projects for Campus Reforms (Charles Henderson &amp; Kate White)</td>
<td>Woodlawn I</td>
</tr>
<tr>
<td></td>
<td>• Using Social Psychological Interventions to Improve Learning of All Students (Chandralekha Singh, Kevin Binning, &amp; Emily Marshman) (2:30 - 4:00 p.m.)</td>
<td>Fountainview</td>
</tr>
<tr>
<td>4:30 - 5:45 p.m.</td>
<td>Plenary: Robin Wright - <em>We have no choice: why systemic change must happen in undergraduate education</em></td>
<td>Admiral</td>
</tr>
<tr>
<td></td>
<td>Welcome: Andrea Beach</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Announcements: Kate White, Caroline Ray</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction: Charles Henderson</td>
<td></td>
</tr>
<tr>
<td>5:45 - 7:00 p.m.</td>
<td>Dinner and Reception</td>
<td>Admiral</td>
</tr>
</tbody>
</table>
7:00 - 8:00 a.m. Breakfast, registration opens at 7:30 a.m.  
8:00 - 9:30 a.m. Symposium: Embedded Expert Models: Implementing change initiatives which support departments from within  
(Stephanie Chasteen, Andrea Greenhoot, Carolyn Aslan, Sarah Bean Sherman)  

8:00 - 8:30 a.m. Introduction  
(Emily Miller, Christine Broussard)  
8:30 - 9:00 a.m. Symposium: The REFLECT project: Spreading evidence based teaching in STEM  
(Stephanie Salomone, Heather Dillon, Eric Anctil, Valerie Peterson, Carolyn James, Tara Prestholdt)  

Symposium: Sustaining institutional change for inclusive excellence (Jill Sible, Jeremy Wojdak, Laura Gough, Patrice Moss, Najla Mouchrek)  

Symposium: Transforming STEM education using a multipronged systems approach and High Impact Practices (HIPs)  
(Allison D’Costa, Cindy Achat-Mendes, Judy Awong-Taylor, Tirza Leader, Clay Runch, Chantelle Anfuso, David Pursell)  

Symposium: Enhancing research capacity for systemic change in undergraduate STEM education by analyzing, organizing, and synthesizing theories of change  
(Tessa Andrews, Dan Reinholz)  

9:30 - 10:00 a.m. Coffee Break  

Admiral  
Waterfront  
Brighton 1/2  
Brighton 3/4  
Woodlawn I  
Fountainview  
First Floor
10:00 - 11:30 a.m.  **Session A**, Chair: Stephanie Salomone
1 - *From Lecture to Studio: The Story of MSU’s Department of Physics and Astronomy* (Marcos D. Caballero, Paul Irving, Daryl McPadden, Vashti Sawtelle, Cori Fata-Hartley)
2 - *Measuring Systemic Change in Introductory Science Courses* (Cori Fata-Hartley)
3 - *How to be a great embedded expert! Catalyzing change in your department from the inside.* (Stephanie Chasteen, Sarah Bean Sherman)

**Waterfront Track: Change Leadership**

**Brighton 1/2 Track: Aligning Incentives**

**Session B**, Chair: Christine Broussard
1 - *Mentoring Faculty Course Reform Teams to Disseminate Evidence-based Reforms and Engage Departments* (Andrew Feig, Sarah Kacin)
2 - *Using Data-Driven Faculty Professional Development To Promote Change In Undergraduate Education* (Gili Marbach-Ad, Carly Hunt, Patrick Sheehan, Kaci Thompson)
3 - *Spreading teaching-reform efforts at the University of Arizona* (Lisa Elfring, Jonathan Cox)

**Woodlawn I**

**Session C**, Chair: Clark Coffman
1 - *An evaluation of the differential effects of the prerequisite pathways on student performance in an introductory biology course* (Amy E. Kulesza, Jerome D'Agostino, Judith S. Ridgway)
2 - *The Sky is the Limit: A Learning Community for Undeclared Students--A Sustainable Investment in Student Success and Retention* (Stacey N. Barnes, Jenifer N. Saldanha, MaKayla B. Schroeder, Andrew J. Sage, Jo Anne Powell-Coffman, Craig A. Ogilvie, Clark R. Coffman)
3 - *Fostering interdisciplinary, cross-institutional collaboration to provide undergraduate STEM students with authentic learning experiences* (Kelly K. McDonald, Thomas E. Landerholm)

**Fountainview Track: Guiding theories of change**

**Brighton 3/4 Track: Equity & inclusion**

**Session D**, Chair: Gita Bangera
1 - *Navigating the bridge between theory and action: Validating the Partnership for Undergraduate Life Science Education (PULSE) Theory of Change* (Heather Seitz, Erika Offerdahl, Carol Colbeck)
2 - *Pursuing systemic change in undergraduate STEM education through Departmental and Leadership Teams for Action (DeLTA)* (Tessa Andrews, Peggy Brickman, Sarah Covert, Erin Dolan, Paula P. Lemons)
3 - *Putting the Teaching Quality Framework Initiative into action: A case-study comparison of three departments engaged in transforming teaching evaluation* (Sarah E. Andrews, Jessica Keating, Joel Corbo, mark Gammon, Daniel Reinholz, Noah Finkelstein)

**Symposium: Towards Servingness: Transforming STEM Education at Hispanic Serving Institutions** (Vignesh Subbian, Guadalupe Lozano, Marla Franco)

18 Transforming Institutions
Plenary: Kelly Mack - *That None Shall Perish*
Introduction: Scott Simkins

1:15 - 2:45 p.m.

Symposium: *Transforming the Teaching of Thousands: Promoting Evidence-based Practices at Scale* (Kay Halasek, Andrew Heckler, Melinda Rhodes-DiSalvo)

Symposium: *Bringing an asset-based community development framework to university change work* (Stephen Biscotte, Najla Mouchrek)

Symposium: *National Academies’ Roundtable on Systemic Change in Undergraduate STEM Education: Directions and Opportunities* (Ann Austin, Mark Rosenberg, Kerry Brenner, Susan Singer, Noah Finkelstein)

Session E, Chair: Guadalupe Lozano
1. *Partnering with Peer Leaders to create inclusive academic support environments* (Jennifer Lundmark, Enid Gonzalez-Orta, Kelly McDonald)
2. *Student-driven approaches to adding discussions of race and racism to STEM courses* (Monica Linden, Bjorn Sandstede)
3. *Five-years of undergraduate STEM Education Reform at Western Washington University, Whatcom Community College, and Skagit Valley College: Progress, Challenges, and Next Steps* (Ed Geary, Shannon Warren)

Session F, Chair: Lisa Elfring
1. *Characterizing departmental culture and assessing change with the DELTA survey* (Courtney Ngai, Daniel Reinholz)
2. *Consortium for the Advancement of Undergraduate STEM Education: CAUSE for Transformation to Evidence-based Teaching Practices* (Mary Pat Wenderoth, Jennifer Doherty, Deborah Wiegand)
3. *Guided by Evidence: Changing the Disciplinary Culture of Teaching and Learning* (Katerina Thompson, Michelle Bertke, Todd Cooke, Joelle Presson, Francisca Saavedra, Patrick Sheehan, Gili Marbach-Ad)

2:45 - 3:30 p.m.

Poster Session and coffee break
(see p. 22)
3:30 - 5:00 p.m.  

**Symposium: Improving Learning by Transforming the Evaluation of Teaching: Resources, Challenges, and Change Processes**  
Gabriela Weaver, Andrea Follmer Greenhoot, Noah Finkelstein, Ann Austin  

**Symposium: Building and Facilitating a Multi-Institutional Collaboration to Support Systemic Change: Insights from the Next Generation of STEM Teacher Preparation Programs in Washington State**  
Ed Geary  

**Session G, Chair: A. Kelly Lane**  
1 - **A Framework for Integrated Competency-Based Education**  
Lisa Bosman, Abrar Hammoud  
2 - **Internships Across Disciplines**  
Jennifer Menon Parker  
3 - **Bringing social network analysis to higher education: How do peer interactions inform teaching decisions?**  
A. Kelly Lane, Marilyne Stains  

**Session H, Chair: Dilhara Liyanage**  
1 - **Transforming STEM Education through Scaffolded Curricula**  
Mitch Malachowski, Jeff Osborn  
2 - **The Biology Teaching Assistant Project: Theory of Change for a Network**  
Elisabeth Schussler, Grant Gardner, Gili Marbach-Ad, Kristen Miller, Judith Ridgway  

**Session I, Chair: Stephanie Foster**  
1 - **Transforming STEM gateway courses: or How we learned to stop worrying about just one approach and love the different pathways**  
Shanna Shaked  
2 - **On the RISE: Institutional transformation by harnessing synergies**  
Gita Bangera  

*Location details are not provided in the text.*
## Conference Program
### Friday, April 5

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-9:30 a.m.</td>
<td>Breakfast, registration table opens at 9:00 a.m.</td>
<td>First Floor</td>
</tr>
<tr>
<td>9:30 - 11:00 a.m.</td>
<td>Panel on Funding Institutional Change</td>
<td>Admiral</td>
</tr>
<tr>
<td></td>
<td>Moderator:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Panelists: David Asai, Andrea Nixon</td>
<td></td>
</tr>
<tr>
<td>11:00 - 11:15 a.m.</td>
<td>Coffee break</td>
<td>First Floor</td>
</tr>
<tr>
<td>11:15 - 12:00 p.m.</td>
<td>Discussion Sessions</td>
<td>Fountainview</td>
</tr>
<tr>
<td></td>
<td>• Guiding Theories of Change (ASCN Working Group 1), Leaders: Tessa Andrews, Daniel Reinholz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Aligning Incentives with Systemic Change (ASCN Working Group 6), Leaders: Christine Broussard, Emily Miller</td>
<td>Brighton 1/2</td>
</tr>
<tr>
<td></td>
<td>• Learning Spaces, Leader: Andrea Beach</td>
<td>Brighton 3/4</td>
</tr>
</tbody>
</table>
(1) **Tommy Mayberry, Sarah Ruffell**: Promoting and Sustaining Inclusivity Through (Minor) Changes In Undergraduate Science Assessment

(2) **Stephanie Chasteen**: Leading departmentally-based change initiatives: The Science Education Initiative Handbook

(3) **Stacey Barnes, Jenifer N. Saldanha, Makayla B. Schroeder, Andrew J. Sage, Jo Anne Powell-Coffman, Craig Ogilvie, Clark Coffman**: The Sky is the Limit: A Learning Community for Undeclared Students--A Sustainable Investment in Student Success and Retention

(4) **Jessica Keating, Noah Finkelstein**: Building a better SET: An “outside-in” approach to developing and implementing improved student evaluations of teaching

(5) **Jennifer Louten**: Development of an integrative, student-centered program to improve student progression and retention.

(6) **Ivan Ceballos Madrigal, Emily Walter**: Exploring Teaching Behaviors of Faculty by Context: An Analysis of Organizational Climate

(7) **Ekeoma Uzogara, Emily Pepper, Camila Guillen, Braxton Spriggs**: Thriving and surviving as non-traditional students: A Qualitative Study

(8) **Jaclyn K Rivard, sarah cox, Angela Willson-Conrad**: Transforming the Educational Experience with High Impact Practices

(9) **James Morris**: Open Educational Resources: How to rethink the textbook from multiple perspectives

(10) **Naneh Apkarian**: Understanding and Enacting Math Department Change: An Approach in Four Frames

(11) **Dilhara Liyanage**: Assessing the Diffusion of Guided-Inquiry Physical Chemistry Laboratory Experiments Through Faculty Workshops

(12) **Lorne Whitehead, Scott Simkins**: A Simple Stochastic Model for Conceptualizing Organizational Change Initiatives

(13) **Jonathan Cox**: Improving opportunities for student learning in large enrollment undergraduate STEM courses through the development of instructional team members that focus independently on classroom management and student thinking

(14) **Sam Donovan, Kristin Jenkins, Jeremy Wojdak**: QUBES: An education gateway for professional development, OER sharing, and project support

(15) **Cindy Achat-Mendes, Judy Awong-Taylor, Benjamin Shepler, Sonal Dekhane, Katherine Pinzon, Jennifer Hurst-Kennedy, Cynthia Johnson, Jamye Curry, Elizabeth Sudduth, Rashad Simmons**: Enrichment of a high-impact practice to promote STEM learning and build transferable skills in undergraduate students: Peer Supplemental Instruction at Georgia Gwinnett College

(16) **Mitchell Awalt, David Blockstein, Diane Doser, Anne Egger, Heather Macdonald, Cathryn Manduca, Dallas Rhodes, Catherine Riithiimaki**: Facilitating Departmental, Programmatic, and Curricular Change through Traveling Workshops

(17) **Bennett Goldberg, Sarah Chobot Hokanson, Tershia Pinder-Grover, Sara Armstrong, Tazin Daniels, Nicole Tuttle, Susanna Calkins, Omari Keeles, Don Gillian-Daniel, Robin Greenler, Julia Savoy, Lucas Hill, Noah Green, Regina Frey, Alessandra York, Anna Conway, Sally Wilson, Judy Milton, Zoe Morris**: Inclusive Learning and Teaching in Undergraduate STEM Instruction

(18) **Samantha S.B. Hopkins, Carol Paty, Rebecca Lindner, David Frank, Daphne Gallagher, Melissa Graboyes, Gabriel Paquette**: Reforming core education in the Clark Honors College: Scaffolding liberal arts understanding in freshman and sophomore honors students

(19) **Jill Nelson, Stephanie Foster, Carrie Klein, Jaime Lester, Laura Poms, Jessica Rosenberg, Robert Sachs**: Leveraging Course-Based Communities of Transformation to Effect Change in STEM Education

---

22 Transforming Institutions
For more information about ASCN, please visit ascnhighered.org or find us on social media @ascnhighered

The information presented here (and more!) is available on the conference website: