

MSU FACULTY SYMPOSIUM

Inspiring Excellence in Teaching and Learning

Thursday, November 8



**MONTANA
STATE UNIVERSITY**



Agenda

- 8–8:30 am **Check-in and Mingle**
- 8:30–8:45 am **Welcome Remarks**
Deputy Commissioner Brock Tessman
President Waded Cruzado
- 8:45–9 am **Overview**
Senior Vice Provost David Singel
- 9–10:30 am **Teaching Innovation**
- 10:30–10:45 am *Break*
- 10:45–11:45 am **Service Learning**
- Noon–1 pm **Lunch – Faculty Panel**
- 1:15–2:45 pm **Active Learning**
- 2:45–3 pm *Break*
- 3–4 pm **Teaching with Technology**
- 4–4:15 pm **Closing Remarks**
Provost Robert Mokwa
- 4:30 pm **Reception with Academic Technology and Outreach**
Open House - Barnard Hall Lobby

Speakers

Teaching Innovation

Moderator: Dean Adams, School of Art

Dean Adams exhibits nationally and internationally and has participated in many artists' residencies including The Archie Bray Foundation, The Banff Centre and Watershed Center for Ceramics. Currently Adams is Vice-President of Programming for Integrative Teaching International and is a member of Foundations Art Theory, Education (FATE). Adams is a co-founder and co-director of the International Wild Clay Research Project at MSU as well as a founding board member for the LH Project in Oregon.

Meta Newhouse, School of Art

Designed Thinking Plus Interdisciplinary Equals Innovation

Meta Newhouse, former Creative Director of GroupBaronet in Dallas, Texas, has designed work for clients such as Dallas County Community Colleges, The Dallas Symphony, Motorola and The American Heart Association. Her work has been recognized nationally and internationally in 22 books and 17 design annuals (PRINT, Communication Arts, AIGA, Graphis, HOW). She is the Founding Director of the Design Sandbox for Engaged Learning (DSEL). DSEL is MSU's collaborative teaching and learning initiative focused on bringing interdisciplinary opportunities to undergraduate students. Meta is also a self-professed typography nerd. Her type-based research has led to presentations at ATypl (Helsinki, Reykjavik, Barcelona), TypeCon (Denver) and FaceForward (Dublin). She loves teaching students to use type to communicate their ideas including through methods such as guerilla advertising.

Graham Austin, Jake Jobs College of Business and Entrepreneurship

Designed Thinking Plus Interdisciplinary Equals Innovation

Graham Austin is an associate professor of marketing in the Jake Jobs College of Business & Entrepreneurship at Montana State University. Her teaching and research focus on strategic empathy, meaning and developing solutions for real-world problems in user and community-centered ways. Her research interests range from craft brewing to barefoot running to suicide prevention to local and regional food systems.

Mary Stein, Health and Human Development*Designed Thinking Plus Interdisciplinary Equals Innovation*

Mary Stein is the Program Leader of the Sustainable Food and Bioenergy Systems (SFBS) and Hospitality Management undergraduate programs at Montana State University. She has over 25 years of experience working in the fields of human nutrition and food systems and has taught a variety of courses within these subject areas at MSU. Between 2011–2015, Mary served as Deputy Director of the National Farm to School Network working toward successful expansion of healthy, locally sourced product inclusion in school food across the U.S. Mary returned to teaching at MSU in 2016 and is an active proponent of the strength of interdisciplinary instruction.

Brent Rosso, Jake Jobs College of Business and Entrepreneurship*Creative Constraints and Experiential Learning*

Brent Rosso is an Associate Professor of Management in the Jake Jobs College of Business & Entrepreneurship. Rosso's research examines the social psychological dynamics of creativity and innovation in organizations, and he strives to create innovative pedagogies that engage students and bring course material to life. Rosso received the 2015 MSU Teaching Innovation Award.

William Schell, Mechanical and Industrial Engineering*Ill-Structured Problems to Prepare Students for Life*

William J. Schell is an Associate Professor in Industrial and Management Systems Engineering and Associate Director of the Montana Engineering Education Research Center with research interests in engineering education and the role of leadership and culture in process improvement. While at MSU he has taught a total of fifteen different courses, and all his courses use varying levels of active learning approaches. Prior to his academic career, Schell spent 14 years in industry where he held leadership positions focused on process improvement and organizational development.

Scott Powell, Land Resources and Environmental Sciences*The Teaching Continuum of Online vs In-the-Field*

Scott Powell is an assistant professor in the Department of Land Resources and Environmental Sciences. He is a geospatial scientist with research and teaching interests in remote sensing and landscape ecology. He is also the faculty lead and program coordinator for the online master's degree program in environmental sciences. His teaching experiences encompass a variety of approaches and audiences from 125 first year undergraduate students in a face-to-face introductory course to 15 working professionals in an online graduate course.

Service Learning**Moderator: Rebekah VanWieren, Plant Sciences and Plant Pathology**

Rebekah VanWieren's primary focus of research is on ecological landscape design in the context of green infrastructure and land regeneration at site to regional scales. She is particularly interested in understanding the unique challenges in brownfield and vacant land redevelopment and exploring strategies that align sustainable water management, ecological health and community revitalization. She teaches a range of courses within the undergraduate landscape design program from representation and site engineering to advanced planning and design. Studio courses focus on sustainable site design principles including a service-learning studio that utilizes landscape performance for designing public green infrastructure projects. Her teaching approach prioritizes integrated methods and engagement opportunities to inspire students' critical thinking and communication prowess as our future environmental leaders.

Marvin Lansverk, English*How Do You Do Service Learning Online?*

Marvin Lansverk is a Professor of Eighteenth-Century British literature at MSU where he has been teaching for 30 years. He is particularly interested in William Blake, with a second book on Blake nearing completion entitled *Blake's Visual Wisdom*. He has been incorporating service learning in his classes since serving as a statewide service-learning mentor in 2001 and was the first recipient of MSU's President's Award for Excellence in Service Learning in 2004.

Sarah Schmitt-Wilson, Education**Coral Schulz, Student, English Teaching***Strategies for Success in Service Learning*

Sarah Schmitt-Wilson is an Assistant Teaching Professor at Montana State University where she serves as the program leader for the teacher education program. Her teaching incorporates formative assessments to improve student performance, service learning, active learning and community building strategies. Her research focuses on the educational and career decision making of adolescents and young adults from rural communities.

Gary Bishop, Jake Jobs College of Business and Entrepreneurship
Rebecca Rebrovich, Student, Business Management

Experiential Business Client Consulting

Gary Bishop is an Associate Teaching Professor and Director of Student Research Services in the Jake Jobs College of Business & Entrepreneurship. He designs case studies for students to study at the beginning of his classes and then breaks them into teams that work directly with clients in the community to provide them with custom business and marketing plans. He focuses on teaching ethics and professionalism.

Kevin Amende, Mechanical and Industrial Engineering

Who Knocked Over the Silos?

Kevin Amende is a licensed professional engineer and associate professor in the mechanical and industrial engineering department at Montana State University. Since 2003, he has been teaching heating, ventilating, and air-conditioning (HVAC), thermal processes and manufacturing courses at MSU. He holds degrees from Sheridan College and Montana State University in both engineering and curriculum and instruction. Since 2001, he has been performing industry and government-sponsored energy efficiency research centered around the built environment. He has received Excellence in Outreach Awards both at the college and university levels in recent years, largely by spiraling his research into the classroom and bringing the classroom to the surrounding community.

Faculty Panel

Moderator: David Singel, Academic Affairs

David Singel has been a member of the MSU faculty since 1994, head of the Department of Chemistry and Biochemistry since 2005 and Associate Vice Provost since 2011. He was appointed Senior Vice Provost in 2018. He holds a bachelor's in chemistry from Pennsylvania State University and a doctorate in chemistry from the University of Chicago. During his time as department head, the number of majors has increased two-fold and the department's grants and contracts have grown from \$4.5 million to \$12 million. He worked on two major building projects including the construction of the Chemistry and Biochemistry Building and the renovation of Gaines Hall. He serves on the University Planning Council and is the council's representative on the University Budget Council.

Scott Bryant, Jake Jobs College of Business and Entrepreneurship

Scott Bryant's main research stream examines the strategic role of knowledge creating and sharing in organizations especially as related to peer mentoring, leadership, emotional intelligence and trust. Currently he is studying the impact of emotional intelligence and transformational leadership on organizational outcomes by examining how they impact the effectiveness of human resources managers and not-for-profit managers and the safety of wilderness crews in the Montana Conservation Corps. Bryant also researches entrepreneurship in the emerging economy context and pedagogical innovations.

Christina Anderson, School of Film and Photography

Christina Z. Anderson's work focuses on the family snapshot, gender identity, the altered landscape and the contemporary vanitas. Her prints are handmade in a variety of 19th century photographic processes, primarily gum and casein bichromate, salted paper, cyanotype over platinum, and mordantage. Anderson's work has shown internationally in 100+ shows and 40+ publications. Her passion is to share the knowledge and practice of the contemporary handmade print through her publications as well as workshops throughout the United States and overseas. Anderson has authored books which have sold in 40 countries including *The Experimental Photography Workbook*, *Gum Printing and Other Amazing Contact Printing Processes*, *Gum Printing - A Step by Step Manual Highlighting Artists and Their Creative Practice and Handcrafted: The Art and Practice of the Handmade Print* (the latter co-authored with Wang, Jianming, King). Her most recent book, *Salted Paper Printing, A Step-by-Step Manual Highlighting Contemporary Artists*, was released last fall. Anderson is Associate Professor of Photography at Montana State University, where she teaches experimental black and white and alternative process photography, as well as text and image design.

Michael Reidy, History and Philosophy

Michael Reidy is the Michael P. Malone Professor of History in MSU's Department of History and Philosophy in the College of Letters and Science. He has been studying how mountaineering experiences influenced important scientific thinkers in the 19th century including Charles Darwin and John Tyndall. Reidy said he understands first-hand how experiences in mountains can have a transformational effect on research. A native of Mississippi who graduated with a bachelor's degree from the University of Notre Dame, Reidy spent nine summers on a commercial fishing boat in Alaska. His adventures there fostered an interest in the science of oceans and research into the history of tides.

James Martin, Modern Languages and Literatures

James W. Martin is an Associate Professor in the Department of Modern Languages and Literatures. He earned his Ph.D. in history from the University of New Mexico in 2008. He teaches a variety of courses in Latin American studies for Modern Languages and Literatures and the Department of History. He is the author of *Banana Cowboys: The United Fruit Company and the Culture of Corporate Colonialism* (Albuquerque: University of New Mexico Press, 2018). Currently he is working on an environmental history of fishing in the Inland Northwest.

Sarah Codd, Department of Mechanical and Industrial Engineering

Sarah Codd is co-director of the Magnetic Resonance Lab and a Professor in the Department of Mechanical and Industrial Engineering at Montana State University. Her research focuses on technique development, spatially resolved studies of gas in ceramics, flow and diffusion studies in porous media, and investigation of fluid dynamics in hydrogels, biofilms, cellular suspensions and polymer electrolyte membranes. Codd grew up in New Zealand, comparable in beauty to Montana, and goes back most years for a mid-summer ski vacation. She held research positions in England, New Zealand, Germany and New Mexico before moving to Montana in 2002. When she is not teaching herself or her students more about the wonderful world of science and engineering you may find her mountain biking in the Hyalites, skiing in the Bridgers, or backpacking somewhere equally as beautiful.

Steve Swinford, Sociology and Anthropology

Steve Swinford is an associate professor in the Department of Sociology and Anthropology. A recipient of the College of Letters and Science Outstanding Teaching Award in 2009, he has taught courses across a wide array of core designations and ranging in size from large lecture halls to small seminars.

Active Learning**Moderator: Brock LaMeres, Electrical and Computer Engineering**

Brock LaMeres joined the Montana State ECE faculty in July of 2006. He received his Ph.D. in electrical engineering from the University of Colorado, Boulder in 2005, his MSEE from the University of Colorado, Colorado Springs in 2001 and his BSEE from Montana State University, Bozeman in 1998. LaMeres teaches and conducts research in digital systems with particular emphasis on exploiting reprogrammable fabrics to deliver more effective computer systems. LaMeres is also studying how engineering education can be improved using innovative e-learning environments. LaMeres was appointed the Director of the Montana Engineering Education Research

Center (MEERC) in 2016. LaMeres has published over 80 manuscripts and two textbooks related to high speed digital systems. LaMeres has also been granted 13 US patents in signal propagation. LaMeres is a senior member of IEEE and a registered professional engineer in the states of Montana and Colorado. LaMeres is a member of AESS, ASEE and serves as the faculty advisor of the student branch of IEEE at MSU.

Stephanie Wettstein, Chemical and Biological Engineering*Self-paced, Active Problem Solving*

Stephanie Wettstein is an Assistant Professor at Montana State University in the Chemical and Biological Engineering Department where she is part of the Montana Engineering Education Research Center (MEERC). Her teaching incorporates active learning through use of the Immediate Feedback-Assessment Technique (IF-AT) forms, clickers, and a “corporate” twist on a previously traditional lab course. Her research focuses on engaging undergraduate students in large (100+) classes.

Sarah Pennington, Education**Sarah Presso, Student, Education***Escaping Boring Review with Hands-on/Brains-on*

Sarah E. Pennington spent over a decade as a reading and language arts teacher before earning her Ph.D. in literacy studies and educational psychology. Now in her third year at MSU, she strives to engage the preservice teachers in her courses through a variety of active learning strategies that push them to apply and synthesize their knowledge.

Michael Babcock, Psychology**Faith Arnett, Savanna Brentlinger, Derek Ellingsen, Keifer Clark, Jacqueline Bugara, Devin Rossie, Simone Dragoo, Sydney Mathison, Students, Psychology***An Interpretive Play of Hippocampal LTP*

Michael Babcock is a Professor of Psychology and 2018–19 MSU Presidential Faculty Fellow. He has taught at Montana State University for 27 years and is a member of the Teaching Excellence Action Committee (TEACH). Dr. Babcock received the Provost Undergraduate Research/Creativity Mentoring Award and the College of Letters and Science Outstanding Teaching Award. He enjoys using technology solutions and active learning strategies in the classroom.

Veronica Baker, Mathematical Sciences*Implementation of 4x4, and Longitudinal Analysis of Student Success*

Veronica Baker has been teaching in the Department of Mathematical Sciences for over 20 years. She is currently the Student Success Coordinator for M171-Calculus I. In addition to teaching, this unique position allows her to be able to offer support to over a thousand MSU students each year. This support might include additional office hours, offering review sessions or making additional resources available. She also works closely with all M171 instructors to assure all students have similar experiences in their classrooms.

Teaching Technology**Moderator: Colin Smith**

Colin Smith is the Manager of Teaching and Learning Technologies (TLT) for Academic Technology and Outreach. With a background in video production and classroom technology support, Smith has been working for MSU since 2014 and began managing TLT in spring of this year taking on responsibility for the management, support and deployment of key instructional technologies on our campus. Smith graduated from MSU with a M.Ed in Adult and Higher Education in May.

Tony Hartshorn, Land Resources and Environmental Sciences*You Should Record Yourself Teaching*

Tony Hartshorn is an Associate Professor at MSU in Land Resources and Environmental Sciences and grew up in Costa Rica dreaming of snow. So, he went to school in New Hampshire, where he experienced snow and first learned about soil. When he worked as a consultant in Alaska, he learned even more about soil, especially contaminated soils. That learning motivated him to pursue a Ph.D. in soils at the University of California. This combination of academic experiences and work cemented his appreciation for how much he still had to learn about soils. Since 2012, he has been learning about soils every day by teaching about them at MSU. He uses lecture capture in his classes.

Christina Hayes, Mathematical Sciences*Enhancing Student Learning Using AI Assisted Grading Software Gradescope*

Christina Hayes is the Student Success Coordinator for Math 273 (Multivariable Calculus). She has been responsible for the day-to-day running of the course, training of instructors and undergraduate assistants, and has implemented innovative strategies for learning and teaching. Some of those strategies include active learning, a 4 point grading scale as well as the use of Gradescope. She has also taught many other math courses for the

Department of Mathematical Sciences and works closely with mathematics undergraduate majors both as mentor and as Math Club Advisor. For these efforts she was awarded the President's Award for Excellence and was recognized as Student Organization Advisor of the Year.

Melanie Mangione, Gallatin College*Illuminating Teaching with the LearningGlass*

Melanie is a MSU graduate, licensed architect in Montana and Alaska and a Nationally Certified Interior Designer. She has enjoyed teaching as an instructor and assisting in improving the Gallatin College interior design curriculum since spring semester 2017. Continuing to work for an Alaska-based architecture firm since moving back to Bozeman in 2015, she has honed her distance communication skills on projects across the United States.

Ronda Black, Gallatin College*Webex Beyond the Classroom*

Ronda Black is currently serving as the Information Technology Program Director at Gallatin College. She holds an MIS degree from Franklin University, two AAS degrees and has several years of professional network security experience. Rhonda is passionate about technology and ways to advance the classroom environment for today's students.

Mountains & Minds