

# **1<sup>ST</sup> ANNUAL COPPER COUNTRY LEAN CONFERENCE**



## **CONFERENCE PROGRAM**

**MAY 20, 2019  
8:30 AM - 4:30 PM**

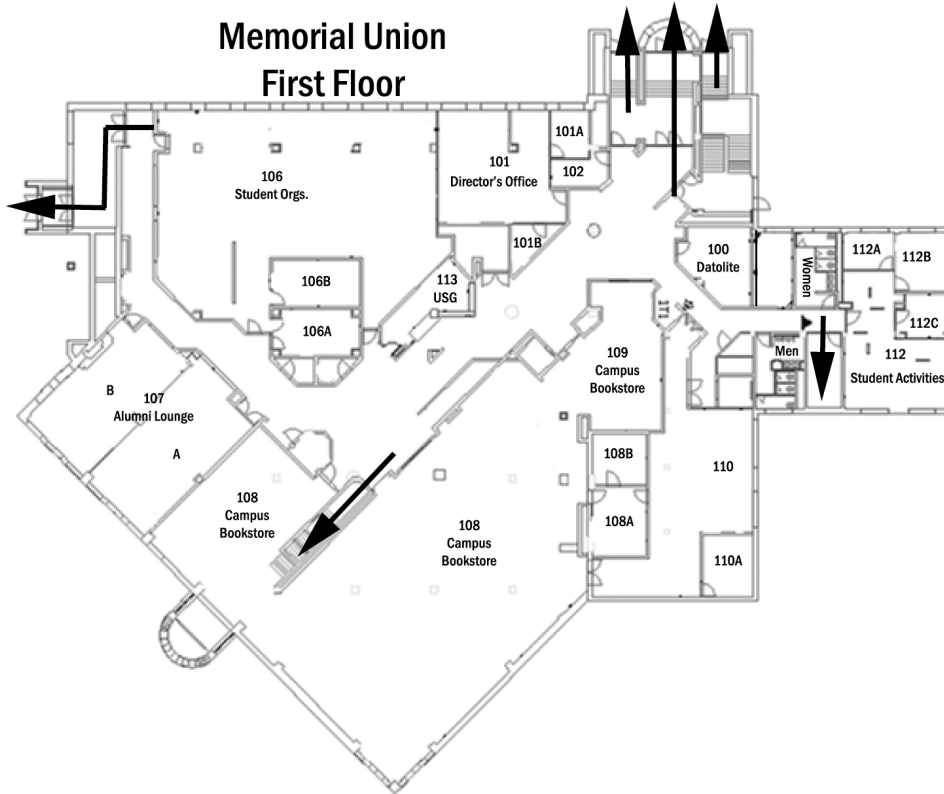
**GROWING LEAN, FROM THE ROOTS  
TO THE TREETOPS**



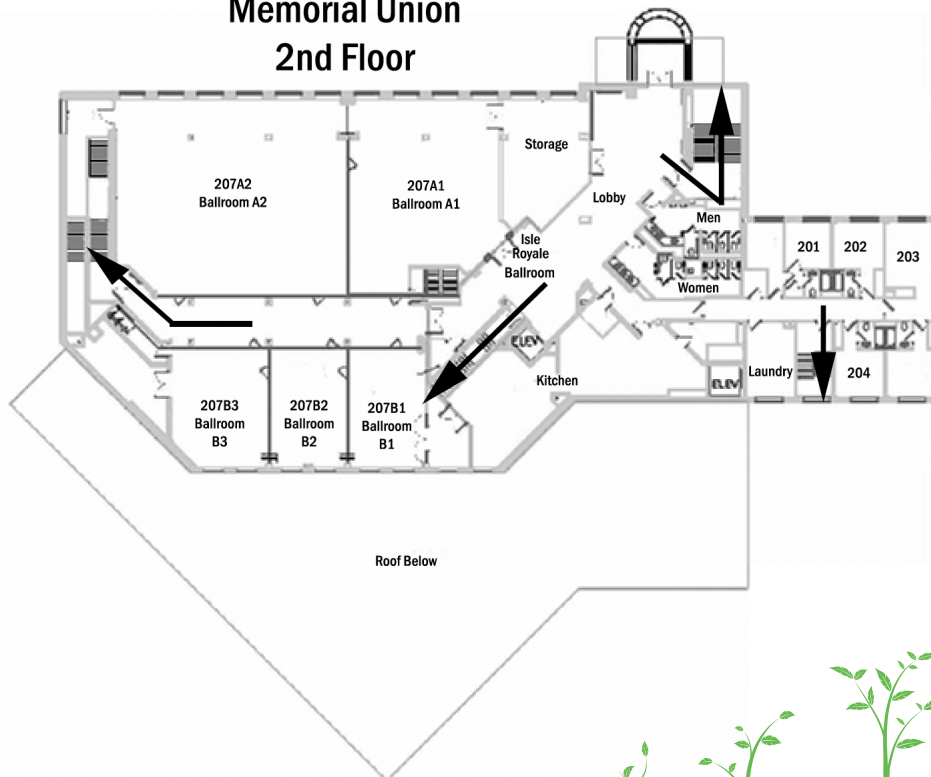
**Michigan  
Technological  
University**

# Memorial Union Floor Plan

## Memorial Union First Floor



## Memorial Union 2nd Floor



# Conference Information

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## **Registration**

The conference is held at Michigan Technological University in the Memorial Union Building (MUB) (building #34). Please register by 8:30 am in the lobby on the second floor.

All participants are invited to fill out a raffle ticket to win prizes throughout the day. We have a variety of prizes donated by many campus departments. Please find the complete list of departments who gave in the back of the program.

## **Where to Find Help**

If you are in need of assistance, find help in the Conference Headquarters room, located in MUB Ballroom B2.

## **Parking**

For directions and parking see the campus parking map or online interactive map at [bit.ly/30AUicy](http://bit.ly/30AUicy). If you purchased a parking permit, please park in lot 27 located west of the MUB.

A volunteer will be present to give out parking permits 7:30-8:30 am. If you arrive after 8:30 am, please see a volunteer at the registration table to avoid getting a parking ticket.

## **In Case of Emergencies**

In case of a building emergency, please walk to the nearest exit. Once you are safely outside of the building, find a conference volunteer to check in.

## **Unsafe Acts or Conditions**

If you see an unsafe act or condition, please notify a conference volunteer wearing a green namebadge, or stop by the Conference Headquarters located in MUB Ballroom B2.

## **Conference Feedback**

There will be many opportunities to evaluate different aspects of the conference. Session evaluations will be given to participants at the end of each breakout session. To evaluate the conference as a whole, please find the conference evaluation form in the registration packet.

# Schedule at a Glance

<b>Time</b>	<b>Event and Location</b>
<b>7:30 AM - 8:30 AM</b>	<b>Registration</b> Memorial Union Building (MUB), Lobby, 2nd floor
<b>8:30 AM - 8:50 AM</b>	<b>Welcome and Opening Remarks</b> Ballroom A2, 2nd floor
<b>8:50 AM - 9:20 AM</b>	<b>Keynote Presentation</b> Ballroom A2, 2nd floor <i>Jim Manley, Carlisle Operating System</i>
<b>9:30 AM - 11:30 AM</b>	<b>Workshop Session</b> The Red Bead Experiment - Ballroom A2, 2nd floor <i>Jim Manley, Carlisle Operating System</i>
<b>11:30 AM - 12:30 PM</b>	<b>Lunch and Poster Showcase</b> Alumni lounge, 1st floor- Lunch Ballroom A1, 2nd floor- Poster Showcase
<b>12:30 PM - 12:50 PM</b>	<b>Case Study Presentations</b> Ballrooms B1 and B3, 2nd floor
<b>1:00 PM - 1:50 PM</b>	<b>Concurrent Active Learning Sessions</b> Ballrooms B1 and B3, 2nd floor
<b>1:50 PM - 2:15 PM</b>	<b>Refreshment and Networking Break with the Copper Country Lean Group</b> Ballroom A1, 2nd floor <i>Copper Country Lean Group</i>
<b>2:15 PM - 2:35 PM</b>	<b>Case Study Presentations</b> Ballrooms B1 and B3, 2nd floor
<b>2:45 PM - 3:35 PM</b>	<b>Concurrent Active Learning Sessions</b> Ballrooms B1 and B3, 2nd floor
<b>3:45 PM - 4:15 PM</b>	<b>Closing Keynote</b> Ballroom A2, 2nd floor <i>Theresa Coleman-Kaiser, Michigan Technological University</i>
<b>4:15 PM - 4:30 PM</b>	<b>Conference Closing</b> Ballroom A2, 2nd floor



# Program Schedule

**7:30 AM - 8:30 AM**

*Lobby, 2nd floor*

**Registration**

**8:30 AM - 8:50 AM**

*Ballroom A2, 2nd floor*

**Welcome and Opening Remarks**

*Briana Tucker, Michigan Technological University*

**8:50 AM - 9:20 AM**

*Ballroom A2, 2nd floor*

**Keynote Presentation: Point 14**

*Jim Manley, Carlisle Operating System*

## **WORKSHOP SESSION**

**9:30 AM - 11:30 AM**

*Ballroom A2, 2nd floor*

**The Red Bead Experiment**

*James (Jim) Manley, Carlisle Operating System*

### **About the Presenter:**

In 1976, General Motors hired me to work on the assembly line at Willow Run, MI, spot-welding Chevrolets. My career progressed through manufacturing operations in line and staff positions at several different plants and divisions. I retired from my automotive career as Supply Chain Director for Faurecia, NA. In 2012 I was appointed the first Managing Director of the Demmer Center for Business Transformation at Michigan State University. Our program selected MBA and undergraduate students to be "lean apprentices." They were assigned to work with partner organizations seeking business transformation through lean systems thinking and profound knowledge. In 2016, I accepted the COS Global Director position at Carlisle (NYSE: CSL) working globally to teach, coach, and mentor lean transformation at our four divisions.

During my career with GM, I taught manufacturing process improvement to undergraduates at Eastern Michigan University as an adjunct professor. I had the unique opportunity to learn directly from Dr. W. Edwards Deming as part of his engagement with General Motors. GM selected me to intern at NUMMI, the joint assembly plant venture between GM and Toyota in Fremont, CA. At NUMMI, I learned the Toyota Production System "apprentice style" from the TPS leaders and subject matter experts. At last count, I have taught and coached lean systems thinking in 30 countries over three decades.

Erva and I have been married for 39 years. We are blessed with two married children and two grandsons. I am active in my church, local politics, non-profits, and professional organizations. We enjoy our cabin in the summer, any good library, leisurely rides on bike trails with our grandsons, and long walks with Holly St. Nick (our puppy).

**11:30 AM - 12:30 PM**

*Alumni lounge, 1st floor*

*Ballroom A1, 2nd floor*

**Lunch and Poster Showcase**

Lunch

Poster Showcase

# Program Schedule Continued

**12:30 PM - 12:50 PM**  
*Ballroom B3, 2nd floor*

## **CASE STUDY PRESENTATIONS**

### **Track A - The 8 Wastes**

Teresa Schissler-Boichot, *Boichot Consulting*

This case study will give examples of the 8 wastes with a focus on manufacturing examples. The 8 wastes are motion, waiting, movement, correction, overprocessing, overproduction, inventory, and untapped knowledge.

#### **About the Presenter:**

Teresa graduated with her BSCE from Michigan Technological University in '98' and her MSCE from Bradley University in 2000. Teresa has served on the CEEPAC board for five years and the MET board for 2 years. She was inducted into the Presidential Council of Alumni in 2014 and was awarded the Outstanding Young Alumni Award in 2010. Teresa has held positions as Executive VP of Operations, Divisional Product Support Manager, Master Black Belt, and Director of Continuous Improvement.

Most of her career she worked for Caterpillar Inc., but due to dual careers she has worked for other organizations as their family relocated. Teresa has worked projects ranging from Purchasing to Operations, and the project savings ranged from \$25K to \$52M annually.

*Ballroom B1, 2nd floor*

### **Track B - Growing Our IT Knowledge Base Using 5S**

Heidi Reid, *Michigan Technological University*

Brian Hutzler, *Michigan Technological University*

How do you improve and update electronic data using lean tools? Michigan Tech IT, using 5S methodology, successfully transitioned their repository of articles known as the Knowledge Base into a new software platform. This case study will provide helpful tips when "cleaning up" drives, files, and even a Knowledge Base.

#### **About the Presenters:**

Heidi Reid - As an Assistant IT Project Manager at Michigan Tech, Heidi uses lean continuous improvement to help transform and standardize processes across campus. Heidi's background spans the fields of hospitality, Human Resources, and Information Technology. Heidi is currently working on her bachelor's degree in Management Information Systems at Michigan Tech. Heidi has over ten years of experience as a Lean Facilitator and has a passion for helping make processes better.

Brian Hutzler - Brian Hutzler received his MBA in 2015 and is currently an Assistant IT Project Manager at Michigan Tech. In addition to project management work, Brian spends a lot of his time trying to improve communication methods and initiatives for the organization. He is excited about the ways in which continuous improvement is happening at the university.

# Program Schedule Continued

**1:00 PM - 1:50 PM**

*Ballroom B3, 2nd floor*

## **CONCURRENT ACTIVE LEARNING SESSIONS**

### **Track A - Push Pull Methodology**

Teresa Schissler-Boichot, *Boichot Consulting*

Come find out how the push-pull methodology (also known as Just In Time or Made to Order) not only is used in industry, but can also be used to improve service departments. Do you think this methodology can be applied to parts or equipment ordering, food service, accounts payable, and consumables? You will leave this interactive session understanding the push-pull methodology, when it can be applied, and the process for implementation. We will also go through several examples in many areas of business to see how you can reduce waste and cost by improving the process.

#### **About the Presenter:**

Teresa graduated with her BSCE from Michigan Technological University in '98' and her MSCE from Bradley University in 2000. Teresa has served on the CEEPAC board for five years and the MET board for 2 years. She was inducted into the Presidential Council of Alumni in 2014 and was awarded the Outstanding Young Alumni Award in 2010. Teresa has held positions as Executive VP of Operations, Divisional Product Support Manager, Master Black Belt, and Director of Continuous Improvement.

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*Ballroom B1, 2nd floor*

### **Track B: 5S at Eagle Mine - The Foundation of Lean/Six Sigma**

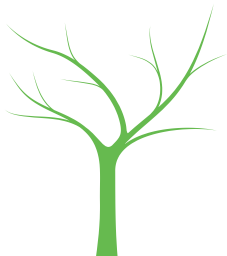
Luke Ramlow, *Eagle Mine*

Cyndi Ketzenberger, *Eagle Mine*

5S is a critical foundational component of any Lean/Six Sigma management system. It provides the basic components of visual management, just-in-time production, built-in quality, and operations excellence. At Eagle Mine, 5S has been successfully implemented across three geographically separate sites. The 5S method from Lean Manufacturing was identified as the best way forward. Using 5S, the mine operations were transformed from firefighting to standard processes. This learning session will review the 5S program, how it was implemented, challenges overcome to implement, before/after results, and how it is sustained. At the end of the session, learners will have a real-world example of the challenges and benefits to 5S no matter where they are in their own 5S or Lean journey..

#### **About the Presenters:**

Luke Ramlow is a Continuous Improvement Coordinator for Eagle Mine LLC. He received his B.S. in Mechanical Engineering Technology from Northern Michigan University and MBA from Augsburg College in Minneapolis MN. Upon graduating, he worked in automotive manufacturing for 5 years in various roles. (Continued on next page.)



# Program Schedule Continued

## **About The Presenters Continued:**

Upon receiving his MBA, he made a switch from Manufacturing to Health Care and worked for Mayo Clinic as a Health Systems Engineer. He also taught Systems Engineering in the Mayo Clinic College of Medicine and was awarded the rank of Instructor. Luke has worked as an Operations Manager for RTI Surgical overseeing the operations of four departments charged with assembling, labeling, and packaging medical devices. At Eagle Mine he works with departments across Mining Operations to evaluate and improve processes using Lean/Six Sigma methods.

Cyndi Ketzenberger is the Continuous Improvement Lead at Eagle Mine LLC. She received her B.S. degree in Civil Engineering from Michigan Technological University, and an M.S. in Mechanical Engineering from Colorado State University. She worked as a design engineer for wastewater treatment, then as an environmental project engineer in the wood products industry. Upon completion of her graduate degree, she made the transition to the automotive industry which evolved from quality engineering, to process improvement as a Six Sigma Black Belt, and business operating systems management. At Eagle Mine she is responsible for the development and maintenance of the continuous improvement program.

**1:50 PM - 2:15 PM**

*Ballroom A1, 2nd floor*

## **Refreshments and Networking Break with The Copper Country Lean Group**

### **CASE STUDY PRESENTATIONS**

**2:15 PM - 2:35 PM**

*Ballroom B3, 2nd floor*

#### **Track A: Simple Visual Control System to Avoid Prepped Food Shortages & Overages**

Kathy Wardynski, *Syl's Cafe*

Learn about an easy-to-use system that has saved hours of employee time, reduced both food waste and costs, reduced time to fill food orders, and made the dining experience better for their customers. The system uses 5S, visual management, and kanban, with extremely low start-up and maintenance costs.

#### **About the Presenter:**

Kathy Wardynski is the owner of Syl's Café, a family restaurant in Ontonagon since 1994. She is the Manager of Purchasing and Process Improvement for Dining Services at Michigan Technological University. She's been a Lean Facilitator for 10 years, and is currently working towards Bronze Certification.

*Ballroom B1, 2nd floor*

#### **Track B: Growing Continuous Improvement: An Example of PDCA on Student Employee Visual Management Boards**

Dominique Aleo, *Office of Continuous Improvement*

Visual Management and the Plan, Do, Check, Act (PDCA) Cycle are well known Lean methods. The Student Process Improvement Coordinators in the Office of Continuous Improvement at Michigan Technological University use white boards to track progress on recurring performance duties. (Continued on next page.)



# Program Schedule Continued

2:45 PM - 3:35 PM  
Ballroom B3, 2nd floor

## Abstract Continued

These boards cover multiple areas of work and showcase how many students with different schedules keep track of their workload within the office. This case study examines how the Visual Management boards have changed through multiple cycles of PDCA, in pursuit of perfect visual communication between the students who work in the office, and also perfect performance. Specifically, this presentation will go over the phases of the Visual Management Boards and dig into the need for PDCA even when a process or current state seems to be “good enough.”

## About the Presenter:

Dominique Aleo graduated with a bachelor's degree in Biology in May 2019. She studied Pre-Med and will be attending Michigan State's medical school this coming fall. Currently she is employed in the Office of Continuous Improvement at Michigan Technological University.

## CONCURRENT ACTIVE LEARNING SESSIONS

### Track A: Building Your House of Lean: Standard Work and Effective Communication

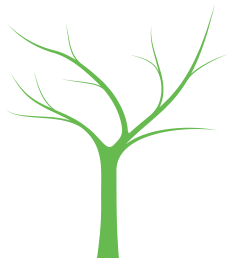
Laurie Stark, *Michigan Technological University*  
Annelise Doll, *Michigan Technological University*

This session will introduce the concept of standard work through a hands-on activity. Attendees will learn the importance of clear communication and language choices in growing a sustainable Lean environment. Presenters will share their experiences regarding how the Van Pelt and Opie Library has grown Lean through the use of standard work and effective communication.

## About the Presenters:

Laurie Stark has a Master of Arts in Career and Technical Education and a Bachelor of Science in Business Administration - Management. She is currently the Staff Development and Lean Initiatives Coordinator for the Van Pelt & Opie Library at Michigan Tech. She has 10+ years of experience in the teaching field ranging from K-12, postsecondary and professional development classes, and training. Laurie has been a Lean Facilitator at Michigan Tech since 2016 and is currently working on becoming Bronze certified through the Society of Manufacturing Engineers (SME).

Annelise Doll received a Master of Science in Information and a Bachelor of Arts in Anthropology from the University of Michigan. She is the Scholarly Communications and Repositories Librarian at the Van Pelt and Opie Library at Michigan Technological University. Annelise contributes experience successfully developing and standardizing procedures to include faculty scholarship at Digital Commons @ Michigan Tech, the university's institutional repository. She has been a Lean facilitator at Michigan Tech since 2016.



# Program Schedule Continued

Ballroom B1, 2nd Floor

## Track B: Employee Engagement Through Continuous Improvement at Eagle Mine

Cyndi Ketzenberger, *Eagle Mine*

Luke Ramlow, *Eagle Mine*

One of the preeminent ways to drive employee engagement is through empowering workers at all levels to improve the work they do every day. This empowerment shows a level of respect that is the central tenet of a Lean Management System. At Eagle Mine, empowering employees and driving engagement encompass the main purpose in the Continuous Improvement process. When faced with the challenge of how to improve operations and empower employees, Eagle Mine chose to focus on providing an effortless way for employees to submit for review, ideas that would make their jobs easier, more efficient, and cost effective. After review, ideas that provide a tangible improvement are implemented with the help of the employee who submitted the idea and any other necessary resources. This program has resulted in cost savings totaling in the tens of millions of dollars over a few short years. At the end of the session, learners will have a real-world example of a system that is self-sustaining and driving improvements daily for their organization.

### About the Presenters:

Cyndi Ketzenberger is the Continuous Improvement Lead at Eagle Mine LLC. She received her B.S. degree in Civil Engineering from Michigan Technological University, and an M.S. in Mechanical Engineering from Colorado State University. She worked as a design engineer for wastewater treatment, then as an environmental project engineer in the wood products industry. Upon completion of her graduate degree, she made the transition to the automotive industry which evolved from quality engineering, to process improvement as a Six Sigma Black Belt, and business operating systems management. At Eagle Mine, she is responsible for the development and maintenance of the continuous improvement program.

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# Program Schedule Continued

**3:45 PM - 4:15 PM**

*Ballroom A2, 2nd floor*

## **Closing Keynote**

Theresa Coleman-Kaiser, *Michigan Technological University*

### **About the Presenter:**

Theresa A. Coleman-Kaiser became Associate Vice President for Administration in 2015 after serving in several administrative and operations positions at Michigan Tech since 1999. Coleman-Kaiser currently oversees the A.E. Seaman Mineral Museum, the Office of Continuous Improvement, Facilities Management, Campus Auxiliary Services, Human Resources, Public Safety and Police Services, and the Office of Shared Services within Administration.

Prior to Michigan Tech, Coleman-Kaiser worked at Grinnell College, St. Norbert College, and the University of Oregon in auxiliary services and student union roles. Coleman-Kaiser is a Lean practitioner, a campus Lean facilitator, and serves on the President's Council of the Michigan Lean Consortium.

Coleman-Kaiser's current focus is developing leaders as coaches of continually developing teams by guiding leaders to achieve their vision of Leadership Excellence

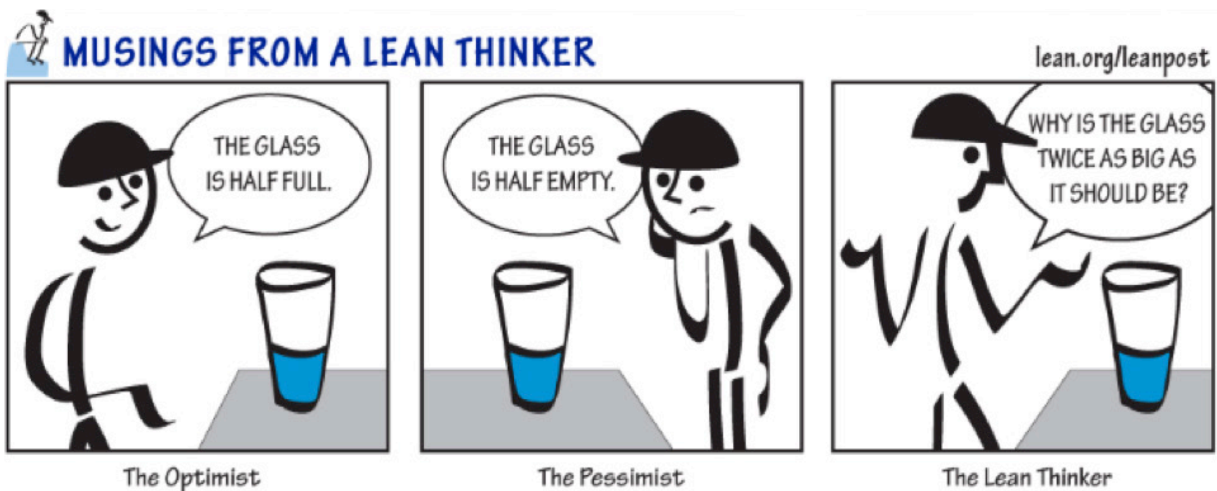
**4:15 PM- 4:30 PM**

*Ballroom A2, 2nd floor*

## **Conference Closing**

Alexandra Holmstrom, *Michigan Technological University*

**DON'T FORGET TO COMPLETE YOUR CONFERENCE EVALUATION**



# Thank You!

## Thank You to All of the Departments Who Donated to the 1<sup>ST</sup> Annual Copper Country Lean Conference:

School of Business and Economics

School of Forest Resources and Environmental Science

Pavlis Honors College

Alumni Relations

Bookstore/University Images

Great Lakes Research Center

Center for Diversity and Inclusion

Department of Electrical and Computer Engineering

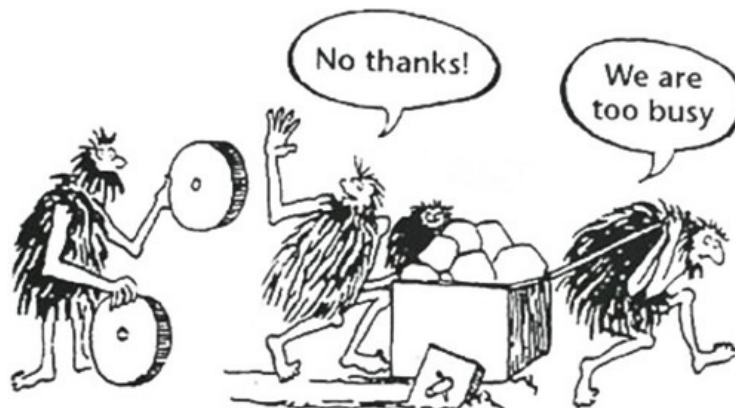
International Programs & Services

Admissions

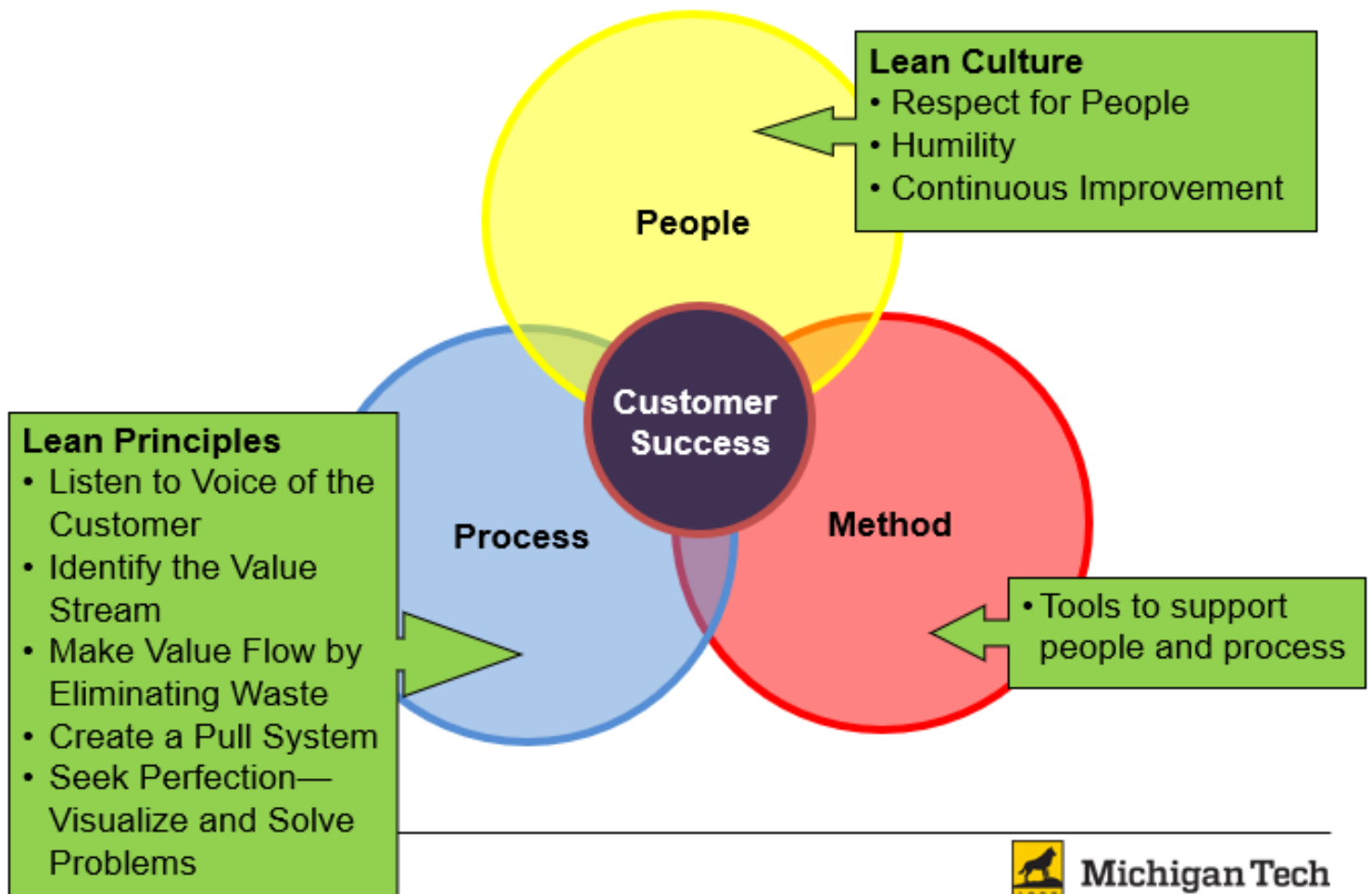
Mont Ripley Ski Hill

Office for Pre-College Outreach

Career Services



# Continuous Improvement Model



## What is Lean?

A systematic, intentional model for creating and sustaining an environment where continuous improvement is the norm.