

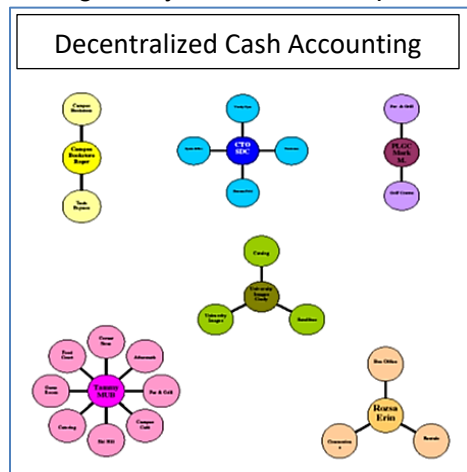
Continuous Improvement Using Lean Principles

April 2016 Update

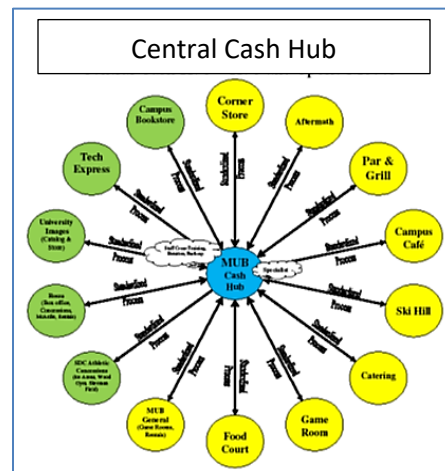
The Spirit of Kaizen in the Cash Hub

The Auxiliary Services' Cash Hub is a prime example of the spirit of Lean, always striving for perfection through daily, continuous improvement. The principles learned at the start of Michigan Tech's Lean journey and knowledge added since then have played a key role in this important operation.

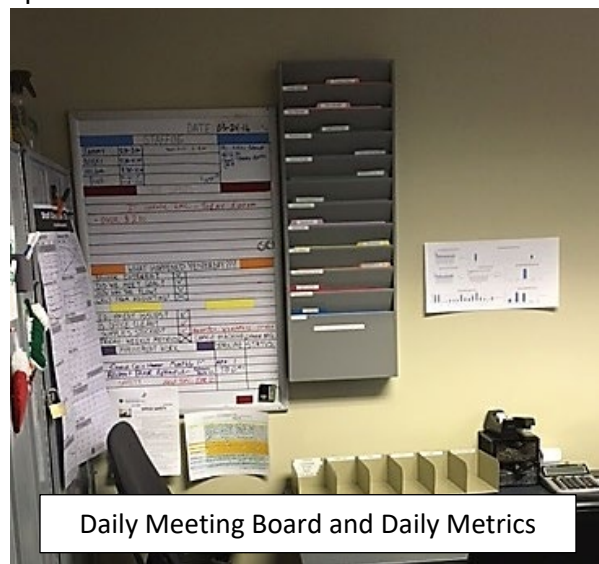
Decentralized Cash Accounting



Auxiliary Services' Cash Hub is the outcome of a kaizen in 2009, near the start of Michigan Tech's Lean journey. A team was formed to address the decentralized, inconsistent cash accounting processes taking place in Merchandising Operations, Dining Services, the Rozsa Center, and the Memorial Union. The goals were to level work flow, stay current with daily work and



reporting (even during employee absences), reduce cash transportation and storage risk, and reduce errors through standardization. The initial event resulted in a centralized hub and spoke model.



Daily Meeting Board and Daily Metrics

A second kaizen focusing on error reduction took place in 2010 and led to enhanced metrics and a feedback loop. A daily team meeting was initiated at this time. Information about errors was tracked, sent to the departments, and reviewed at a weekly manager huddle. Errors and the time spent correcting them have steadily declined since this event.

Following the Plan-Do-Check-Adjust (PDCA) cycle during the daily team meetings, improvements have continued to take place. The team listened to feedback from the departments, adjusted to the addition of 8 spokes, and focused efforts on reducing errors. Starting cash banks and cashier shift worksheets were modified to accommodate departmental requirements.

documentation was created for each area to simplify training of new employees. Within the Cash Hub, additional visual controls have included color coding all materials by spoke, clear and concise labeling, and visual cash bag tracking.

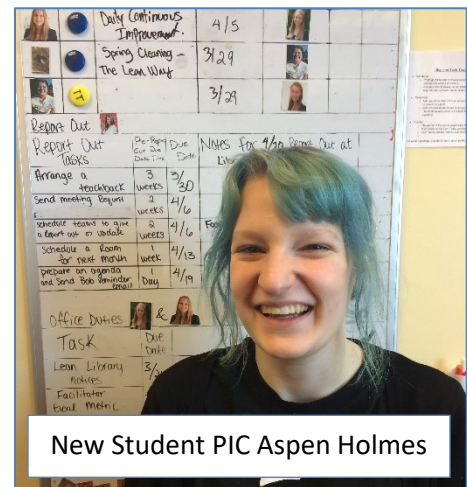
In 2015 a small group met to look for ways to improve the efficiency of flow within the current workspace. The team reconfigured the layout to provide optimal space utilization and point-of-use storage of materials. In addition, safety was considered and ergonomic workspaces were created.



Ergonomic Workspace

Lean Outreach and Connections

- Michigan Lean Consortium (MLC) Partners with Pettibone.** Twenty people attended a [gemba walk](#) jointly sponsored by the MLC and Pettibone Traverse Lift in Baraga, Michigan. The “gemba” is the place where the work is being done. At the gemba, you can see the actual processes, understand the work, ask questions, and learn. Gemba walks are an important part of effective Lean leadership. The program focus was on the application of Lean principles in a heavy equipment assembly environment. The Office of Continuous Improvement (OCI) assisted the MLC by marketing the event through the Copper Country Lean Group, several LinkedIn groups, and other marketing channels. Nine Michigan Tech employees attended.
- University of Michigan Adds New Connection with Michigan Tech.** The facilities group at the University of Michigan has begun their Lean journey, and they are looking for colleagues to share experiences with. As a result of a project collaboration between the University of Illinois' Business Process Improvement office and Michigan Tech's OCI, the University of Michigan learned of Michigan Tech's Lean efforts and reached out to our Facilities Management department.
- Blue Marble Enterprise Asks about Lean.** Michigan Tech's homeland security enterprise, Blue Marble, invited the OCI to talk to them about Lean basics and opportunities on campus.
- Three New Student Process Improvement Coordinators in Training.** Please welcome Aspen Holmes, a communications major, Rylie Store, pursuing a degree in medical laboratory sciences, and Martine Loevaas, a geophysics major, as new [student process improvement coordinators](#). They are replacing OCI's three graduating seniors.
- Huskies' New Employee Orientation Revealing Lean Training.** Several new Michigan Tech employees who have Lean training through their previous employers have been identified during the new employee orientation. OCI is meeting with them to support the transition of their Lean skills to a university environment.
- Michigan Tech Students are Learning Lean.** The opportunities for students to learn about Lean on campus are steadily increasing. They can take academic courses, participate in campus improvement events, join the Leaders in Continuous Improvement student organization, attend Lean workshops, and even request a kaizen to improve processes in their student organizations and enterprises. Read more about this on the [Continuous Improvement Blog](#). Subscribe to the blog [here](#).
- Popular Article in eNewswire.** An article about students learning Lean was published in Michigan Tech's [Office of Innovation and Industry Engagement eNewswire](#). The eNewswire provides an update on University recruiting, research, licensing, and professional development news and programs of interest to industry stakeholders. The Lean student article was the most opened article of that edition.



Formal Continuous Improvement Events as of March 28, 2016

Executive Team Area	Active as of 28 Mar 16	Completed since last report 1 Nov–28 Mar 16	Completed FY16 YTD	Completed FY15 Full Year
Academic Affairs	0	5	10	11
Administration	1	3	12	9
Financial Services and Operations	0	0	0	0
Information Services	0	0	1	1
Research	0	0	0	1
Student Affairs and Advancement	1	1	3	1
Total	2	9	26	23