

Improving Higher Education

KAIZEN Means: “*Change For the Better*”

Team Leader’s Kaizen Manual for Academic Courses and Programs

Three Principles of Kaizen

Process and Results • Systemic Thinking • Non-Blaming / Non-Judgmental

This kaizen team leader manual was created by Prof. Bob Emiliani and originated from a series of kaizens he conducted at Rensselaer (Hartford, Conn. campus) in 2002-2003.

These were the first kaizens ever conducted in higher ed for an academic program.

Improving Higher Education

**University Leaders Must Correctly Understand
and Practice Kaizen in All Activities***

**This Manual is for Conducting Kaizens
for Academic Courses and Programs.**

Similar Process is Used for Administrative Activities

Process and Results Must Be Non-Zero-Sum**

* This manual represents one form of kaizen. University leaders must also learn the other forms of kaizen such as daily kaizen, etc.

** See: *Practical Lean Leadership*, by B. Emiliani, 2008; *The Toyota Way*, by J. Liker, 2004; *Kaizen Forever* by B. Emiliani, K. Yoshino, and R. Go, 2015; and *Toyota Kaizen Methods* by I. Kato and A. Smalley, 2010

Key Resources

What You Can Do As a Team (Administration, Staff, & Faculty):

- *Lean University: A Guide to Renewal and Prosperity*, B. Emiliani, 2015, available from amazon.com
- M.L. “Bob” Emiliani, “Using Kaizen to Improve Graduate Business School Degree Programs,” *Quality Assurance in Education*, Vol. 13, No. 1, pp. 37-52, 2005. [Highly Commended Paper Award](#).

What You Can Do As Individual Faculty:

- *Lean Teaching: A Guide to Becoming a Better Teacher*, B. Emiliani, 2015, available from amazon.com
- M.L. “Bob” Emiliani, “Improving Business School Courses by Applying Lean Principles and Practices,” *Quality Assurance in Education*, Vol. 12, No. 4, pp. 175-187, 2004.

The Logic and Methodology Presented in These Writings Apply to Any Course or Academic Program



“Change for
the Better”

Instructions

Preparation and Ground Rules

Provide people with correct and thorough explanations:

- **Lean Principles: “Continuous Improvement” and “Respect for People”**
- **Kaizen - Literal definition of kaizen is “change for the better,” in a multi-lateral sense; i.e. non-zero-sum (win-win). Ordinary definition of kaizen is “continuous improvement.” Kaizen is not local optimization. Improvements must not negatively impact upstream or downstream processes, and must not negatively impact stakeholders.**
- **Three principles of kaizen:**
 - **Process and Results; Systemic Thinking; Non-Blaming, Non-Judgmental**
- **Everyone participates in kaizen, including top officials (University president, trustees, AD, etc. These people participate as team members, not in their university leadership capacity).**

**Very Important:
Do Not Ignore!**

Clarify Team Member Expectations:

- Identify improvement in areas that need them; don't spend time on things that are OK
- Not looking for “home runs” (major changes, unless needed). Focus on smaller improvements.
- Encourage everyone to speak up and participate... there are no dumb questions! If team members don't understand something, then it is likely that students don't as well.
- Everyone should have some fun, a few laughs, etc. It's serious work, but should also be enjoyable and a positive learning experience for all.
- Participation helps us, our student-customers, and our other stakeholders.

Professor Responsibilities

- Fill out self-assessment sheets (sheets A1-A3)
- Provide hard copies of syllabus, case studies, lecture notes, etc., to Team Leader
- Bring your laptop computer to the kaizen. Be prepared to make changes to syllabus, lecture notes, etc. in real time.
- Present your syllabus, results of your self-assessments, self-identification of improvement opportunities, etc., at the start of the kaizen.

Instructions

Team Member Responsibilities

- Review packet of information prior to kaizen to become familiar with course and its content.
- Participate: make suggestions, share observations, engage in dialogue with other team members, and identify opportunities for improving course.
- Respond to an action item if you get one within 30 days. The action item must fit with the team member's area of responsibility and directly support the desired outcomes of the kaizen.

Team Leader Responsibilities

The role of the team leader is to help the team achieve improvements and avoid continuation of the status quo.

1. Kaizen Preparation (2 weeks prior to kaizen)

Obtain Student Feedback from the Course and Degree Program

- Sort through the feedback from students and other relevant sources and identify the opportunities for improvement.
- Insert 4-8 items in A1 and A2

Solicit Volunteers for Participating in Kaizen:

- Seek cross-functional / multiple stakeholders team membership (typically 6-10 people)
- Solicit via e-mail or in department meetings. Follow-up with personal visits to explain what is happening and why.

1a. Logistics:

- Order audio-visual equipment, food services, polo shirts with kaizen logo

1b. Professor (2 week prior to kaizen):

- Give self-assessment forms to Professor (forms A1-A3)
- Obtain copies of syllabus, case studies, lecture notes, etc., from Professor
- Collect self-assessment forms 1 week prior to kaizen (forms A1-A3)

Instructions

Team Leader Responsibilities, Cont'd.

1c. Documents (4-5 days prior to kaizen):

- Distribute copies of all documents (syllabus, case studies, lecture notes, etc.) and self-assessment forms to each team member.
- Fill out forms B1 and B2, headers only (fill out these and all other forms by hand)
- Send reminder e-mail to team 2 days prior to kaizen

2. Day of Kaizen

- Bring markers, sticky notes, masking tape, push pins, etc.
- Post syllabus, case studies, lecture notes on wall
- Hand out golf shirts at start of kaizen
- Review process flow for the day with team (sheet C1)
- Professor reviews the course syllabus (~1-2 hours) and then the self-assessments.
- Sheet B1, fill out “Kaizen Team Objectives” box – i.e. what the team thinks should be achieved based upon the Professor’s review
- Sheet B2, fill out “Start” score (from sheet A1 and A2) and “Target” score
 - Note: not every target needs to be a “5”
- At lunchtime, send e-mail to “all hands” inviting people to kaizen close-out meeting (from 4:30-5:00 pm, and room number)
- At ~4:00 pm, fill out the “Daily Record” (sheet C2), “Post-Kaizen Follow-Up (sheet C3), and “Kaizen Process” (sheet C4)

Instructions

NOTE:

- The team may not need to address all items listed in sheets A1 and A2 if they are already well-addressed. It's OK for some categories in “Kaizen Target Sheet” (B2) to remain blank
 - Examine the grading criteria: Is it too subjective (i.e. 50% based on class participation)? Are there too few opportunities for students to earn grades (i.e. only one final project)? Eliminate grading based upon “class participation.”
 - Examine the assignments. There should be a balance of team and individual assignments (i.e. 50-50%, 40-60%, or perhaps 30-70%, but not 90-10% or 100-0%). OK to deviate if it is reasonable or appropriate to do so, provided it is not a source of complaints.
 - Is the syllabus clear and unambiguous? Does it conform to the standard School of University format?
See attached example.
- Kaizen close out meeting (30 minutes or less):
 - Team leader introduces team members
 - Team leader presents sheets A1, A2, A3, and B1, and explains the direction taken by the team, then presents and explains sheet B2, C1, C2, C3, and C4.
 - Show syllabus and related materials as appropriate
 - Thank everyone for attending the close-out meeting and adjourn

3. Post-Kaizen

- Team leader makes copies of sheets A1, A2, A3, B1, B2, C1, C2, C3, C4 and related documents for all team members, plus one copy each to Kaizen manager, department chair, dean, and provost (with a day or two)
- Monitor completion of “Post-Kaizen Follow-Up” sheet action items



“Change for
the Better”

Instructions

Soliciting Kaizen Team Members

- Internal Stakeholders:

Your participation is requested for an upcoming kaizen on 1-2 November, 8:30 am - 5 pm in Room 100. The purpose of the kaizen is to improve the course “Organizational Behavior,” and in doing so create greater value for our customers and their future employers.

The web page _____ outlines the rationale for undertaking this activity, the general approach, and shows examples of the forms that we will use.

Please familiarize yourself with the course syllabus and related course materials, which are available online at _____.

There will be a kaizen close-out meeting from 4:30-5:00 pm at the end of each day in which I will present our results. The meeting is open to anyone in the building.

Please contact me if you have any questions. I'll be happy to come by and answer your questions in person if you prefer.

Sincerely,

(Signed by Team Leader, Dean, & Provost)

Instructions

Soliciting Kaizen Team Members

- External stakeholders (e.g. alumni, industry, etc.):

We would like to use the kaizen process as the means to improve our courses and programs. As part of that process, we would like to incorporate the “voice of the customer.” So we kindly ask for your participation in one of our upcoming kaizens.

The web page _____ outlines the rationale for undertaking this activity, the general approach, and shows examples of the forms that we will use. Please familiarize yourself with the course syllabus and related course materials, which are available online at _____.

The commitment on your part is one full day (8:30 am – 5 pm). This is a very important activity and we hope that you will clear your calendar for the date indicated.

Please let me know if you are available to participate within the next day or two, and be sure to contact me if you have any questions.

Sincerely,

(Signed by Team Leader, Dean, & Provost)



“Change for
the Better”

Instructions

Post-Kaizen “Thank You” Note

Team – Thank you for participating in the kaizen. We learned a lot, improved both the course and the kaizen process, and had a good time together. Improvement is always fun, and the results we achieved are excellent.

We hope you will participate in another kaizen soon.

Sincerely,

(Signed by Team Leader, Dean, & Provost)



**“Change for
the Better”**

Example Forms



“Change for
the Better”

Kaizen Summary

Scope of Activity	List courses or degree program
Purpose	Improve course content and learning outcomes
Date(s) and Time(s)	List date range for kaizen
Desired Outcomes	<ul style="list-style-type: none">• Clearer focus• Create learning objectives• Eliminate redundant material• Reduce amount of course material• Improve in-class and homework assignments
Kaizen Facilitator	Name of kaizen facilitator
Team Leader(s)	Names of team leader(s)

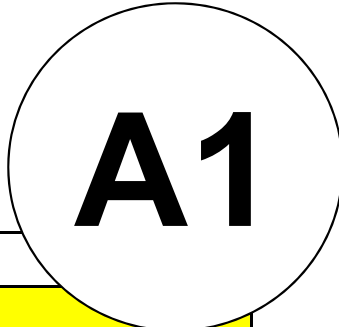
Kaizen Schedule

Degree Program: (e.g. major courses in B.S; MS Electrical Engineering; MBA)

Course	Instructor	Team Leader	Team Members	Date / Room	Complete Yes / No

Duration: 8:30 am – 5:00 pm

Edit Items 1, 2, 3, and 4 based on student feedback.
Include up to 8 items per kaizen.



Pre-Kaizen Assessment

Course Content Self-Assessment

To what extent does my course exhibit the following characteristics?

Not every category needs to be a 5

Not at All		Sometimes		Always
1	2	3	4	5

1. Purpose and Learning Objectives

Purpose and learning objectives for each class and each assignment are documented and reviewed at beginning or end of each class. Customers understand course content and direction. P&L objectives reflect the content.

RATIONALE:

2a. Content: Current Course Materials and Discussion

Course contains a balance of recent historical and current perspectives. Uses news stories from business press to support or contrast what is being taught.

RATIONALE:

2b. Content: Comparative Analysis

Course contains comparisons to alternative management thinking and practices used in other countries and companies.

RATIONALE:

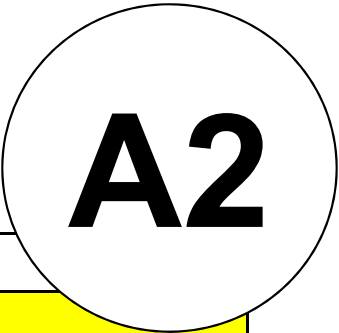
2c. Content: Critical Thinking

Critical thinking (inclusive of root cause analysis) used in class and in assignments to determine the source of management problems and identify solutions.

RATIONALE:

Improvement Opportunities

Edit Items 1, 2, 3, and 4 based on student feedback.
 Include up to 8 items per kaizen.



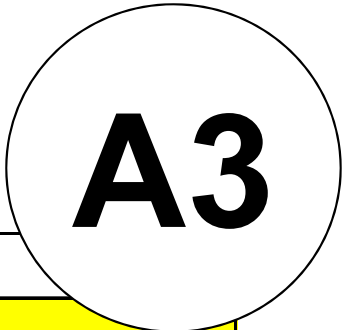
Pre-Kaizen Assessment

Course Content Self-Assessment

To what extent does my course exhibit the following characteristics?	Not every category needs to be a 5				
	Not at All		Sometimes		Always
	1	2	3	4	5
2d. Content: Utility Course material is necessary and relevant to the course objectives and applicable to student's professional environment.					
	RATIONALE:				
2e. Content: Technology Relationship between content and technology is regularly touched upon.					
	RATIONALE:				
3. Organization and Sequence Logical flow of material (ideas, concepts, tools) from one class to another and throughout the course.					
	RATIONALE:				
4. Presentation Modes Course contains an appropriate balance of adult learning methods: Powerpoint, chalkboard, flipchart, discussion, exercises, simulations, break-out activities, etc. Appropriate use of technology in the classroom. Balance of group and individual assignments.					
	RATIONALE:				

Improvement Opportunities

Edit Items 1, 2, 3, and 4 based on student feedback.
Include up to 8 items per kaizen.



Pre-Kaizen Assessment

Self-Assessment Checklist

Course:						
Date:	# Opportunities / # Occurrences*	Mode				Improvement Opportunities
		P	I	T	IN	
ITEM						
1. Purpose & Learning Objectives						
2. Content:						
o Current						
o Comparative						
o Critical Thinking (Root Cause Analysis)						
o Utility						
o Technology						
3. Organization and Sequence						
4. Presentation Modes						
o PowerPoint						
o Flipchart						
o Overhead projector						
o Video						
o Internet						
o Real-time computer use						
o Class discussion						
o Simulation / Role playing						
o Break-out session						
o Guest speaker						

Improvement Opportunities

* Number of discrete opportunities in the classroom and in assignments

Mode: P = passive; I = interactive; T = team, IN = Individual

Kaizen Activity Sheet

B1

Date _____ Course _____

Kaizen Team

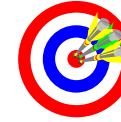
Product Requirements

Course/Program Opportunities

Kaizen Team Objectives*



KAIZEN TARGET SHEET



B2

COURSE _____

DATE _____

TEAM _____

ITEM	START*	TARGET**	PROGRESS		ANTICIPATED RESULT
			Day 1	Day 2	
1. Purpose/Learning Obj.					
2a. Content: Current					
2b. Content: Comparative					
2c. Content: Critical Thinking					
2d. Content: Utility					
2e. Content: Technology					
3. Organization & Sequence					
4. Classroom Experience					

* Based on self-assessment ** Not every category has to be a 5

Adapted from Wiremold

Kaizen Process Flow

C1

Activity	Responsibility
<p>Day 1: Introduce the process Review the syllabus, self-assessments, and other relevant data Break @ 10:30 am Fill out the “Kaizen Activity Sheet” Fill out the “Target Progress Report” Lunch @ 12:00-1:00 pm Review details of the course Break @ 2:30 pm Fill out the “Daily Record” Fill out the “7-Day Follow-Up” form Present results at 4:30 pm kaizen close-out meeting</p>	<p>Team Leader Professor Team Leader Team Leader Team Team Leader Team Leader Team Leader</p>
<p>Day 2 (if needed): Review the daily record Additional detailed review of course content Fill out the “7-Day Follow-Up” form Present results at 4:30 pm kaizen close-out meeting</p>	<p>Team Leader Professor Team Leader Team Leader</p>
<p>Post-Kaizen: Complete “7-Day Follow-Up” list items Review “7-Day Follow-Up” form</p>	<p>Professor, others Team Leader</p>

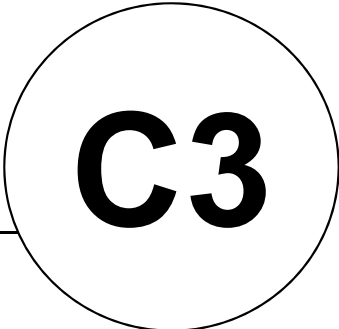
Daily Record

C2

Today's Kaizen Accomplishments		COURSE _____	DATE _____
1			
2			
3			
4			
5			
6			
7			
8			
Tomorrow's Kaizen Activities			
1			
2			
3			
4			

Adapted from Wiremold

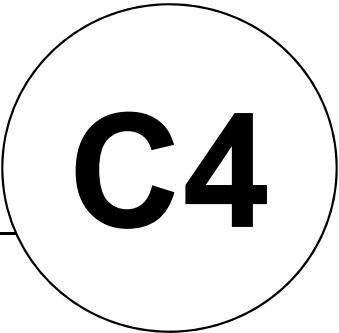
Post-Kaizen Follow-Up



Kaizen "To Do" 7-Day Follow-Up					COURSE _____		DATE _____	
Item	Improvement Opportunity	Action	Person Responsible	Due Date	Percent Complete			
					25%	50%	75%	100%
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Adapted from Wiremold

Kaizen Process Improvement Sheet



Improvement Opportunities	TEAM _____	DATE _____
1		
2		
3		
4		
5		
6		
7		



“Change for
the Better”

Editable Forms For Your Kaizens



“Change for
the Better”

Kaizen Outline

Scope of Activity	
Purpose	
Date(s) and Time(s)	
Desired Outcomes	<ul style="list-style-type: none">•••••
Kaizen Facilitator	
Team Leader(s)	

Kaizen Schedule

Degree Program: (e.g. major courses in B.S; MS Electrical Engineering; MBA)

Course	Instructor	Team Leader	Team Members	Date / Room	Complete Yes / No

Duration: 8:30 am – 5:00 pm

Pre-Kaizen Assessment

Course Content Self-Assessment

To what extent does my course exhibit the following characteristics?	Not every category needs to be a 5				
	Not at All		Sometimes		Always
	1	2	3	4	5
1					
	RATIONALE:				
2					
	RATIONALE:				
3					
	RATIONALE:				
4					
	RATIONALE:				

Pre-Kaizen Assessment

Course Content Self-Assessment

To what extent does my course exhibit the following characteristics?

Not every category needs to be a 5

	Not at All		Sometimes		Always
	1	2	3	4	5
5					
	RATIONALE:				
6					
	RATIONALE:				
7					
	RATIONALE:				
8					
	RATIONALE:				

Pre-Kaizen Assessment

Self-Assessment Checklist						
Course:						
Date:	# Opportunities / # Occurrences*	Mode				Improvement Opportunities
ITEM		P	I	T	IN	
1						
2						
3						
4						
5						
6						
7						
8						

* Number of discrete opportunities in the classroom and in assignments

Mode: P = passive; I = interactive; T = team, IN = Individual

Kaizen Activity Sheet

Date _____ Course _____

Kaizen Team

Product Requirements

Course/Program Opportunities

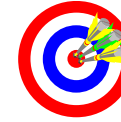
Kaizen Team Objectives*

Adapted from Wiremold

* From the self-assessment.



KAIZEN TARGET SHEET



COURSE _____

DATE _____

TEAM _____

ITEM	START*	TARGET**	PROGRESS		ANTICIPATED RESULT
			Day 1	Day 2	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

* Based on self-assessment ** Not every category has to be a 5

Adapted from Wiremold

Daily Record

Today's Kaizen Accomplishments		COURSE _____	DATE _____
1			
2			
3			
4			
5			
6			
7			
8			
Tomorrow's Kaizen Activities			
1			
2			
3			
4			

Adapted from Wiremold

Post-Kaizen Follow-Up

Kaizen "To Do" 7-Day Follow-Up				COURSE _____
Item	Improvement Opportunity	Action	Person Responsible	Due Date
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Adapted from Wiremold

Kaizen Process Improvement Sheet

Improvement Opportunities	TEAM _____	DATE _____
1		
2		
3		
4		
5		
6		
7		

If desired, ask students who have taken the course or recent grads of the degree program to anonymously assess courses according to criteria listed in A1 and A2.

Student Assessment

Course Content Assessment					
To what extent does this course exhibit the following characteristics?	Not every category needs to be a 5				
	Not at All		Sometimes		Always
	1	2	3	4	5
1					
	RATIONALE:				
2					
	RATIONALE:				
3					
	RATIONALE:				
4					
	RATIONALE:				

Student Assessment

If desired, ask students who have taken the course or recent grads of the degree program to anonymously assess courses according to criteria listed in A1 and A2.

Course Content Assessment					
To what extent does this course exhibit the following characteristics?	Not every category needs to be a 5				
	Not at All	Sometimes			Always
	1	2	3	4	5
5					
	RATIONALE:				
6					
	RATIONALE:				
7					
	RATIONALE:				
8					
	RATIONALE:				

Make Things Better

Better is Good

Better is Fun

Better is Healthy

Have a Great Time!