



# The Lighthouse

May 2005

Elyria/Lorain Section 814

Mission Statement

*To advance community and member quality excellence through educational opportunities, non-competitive information exchange, networking, forming alliances and leadership growth*



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## Chair's Message

Who is Morgan Wootten ???

Morgan's childhood ambition was to be a lawyer. He was asked to coach orphanage baseball and football teams as a volunteer at the age of 19. He quickly realized he would rather invest his time in these kids than in court cases. He moved on to coach high school basketball (DeMatha High in Maryland) and captured:

- FIVE national championships
- # 1 ranking in the region 20 of the last 33 seasons

- 87% lifetime winning percentage.

This tops even John Wooden and Red Aurbach. He made everyone he was with feel like they were the most important person in the world. The time he invested in his teams didn't change the team overnight, but developing the team always paid off.

At our May meeting (May 18th), John Maxwell will share further insights into how to reap the dividends of investing in teams. Following this, Dr Thomas Love (CWRU) will discuss Economic and Statistical Concerns in Multivariate Control and what Quality Improvement Associates Should Know About Propensity Methods. (Further details inside !!)

May 19th, Elyria-Lorain ASQ is invited to join the Akron ASME for a tour of Micro- and Nano-Fabrication laboratory at CWRU. (More details inside !!) There is a \$5 fee for pizza and reservations MUST be made in advance on the Akron ASME website. Park in the Veale garage and bring your parking ticket to the tour for validation. Contact Dr. John Stearns (Chairman of Akron ASME) with questions at 440-835-7532.

I hope to see you at these events!

Marc Kelemen, CQM

Chair, Elyria-Lorain ASQ

## May 18<sup>th</sup> Meeting (6:00 PM)

Our May 18<sup>th</sup> meeting, at Holiday Inn Midway Mall at 6:00 PM, will feature

**Dr. Thomas E. Love, Ph. D.**

**"Economic and Statistical Concerns in Designing Multivariate Control Charts"  
and**

**"What People Thinking About Quality Improvement Should Know About  
Propensity Methods"**

## "Economic and Statistical Concerns in Designing Multivariate Control Charts"

In this talk, we provide a quick summary of some reasonably current results for economic and economic-statistical designs of multivariate exponentially weighted moving average control charts. To start, we review the fundamental concepts of economic and economic-statistical chart design, and provide an argument for the use of multivariate control charts using exponentially-weighted moving averages. The key findings to be discussed involve the impact of design choices (sampling interval, number of samples, amount of smoothing) on chart performance indicators (average run lengths or average times to signal when in-control or out-of-control). This work is joint with Kevin Linderman, Ph. D., from the University of Minnesota's Carlson School of Management.

## "What People Thinking About Quality Improvement Should Know About Propensity Methods"

When statistical comparisons between two alternative policies, structures, designs or options are to be made as part of a quality assessment, the process may be thought of in terms of an observational (i.e. non-randomized) study. We discuss the importance of selection bias in estimating the effect of an exposure (i.e. a treatment or policy change) in such studies. An extremely useful tool for making some necessary adjustments for selection bias is the propensity score (Rubin and Rosenbaum, 1983). In this talk, we introduce propensity score methodologies, and provide some strategic advice for practitioners.

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### **Biography for Thomas Love, Ph. D. Center for Health Care Research and Policy Case Western Reserve University**

Thomas Love is Director of the Biostatistics and Evaluation Unit at the Center for Health Care Research and Policy at Case Western Reserve University - MetroHealth Medical Center. He is Assistant Professor of Medicine at Case's School of Medicine, and Assistant Professor of Operations at Case's Weatherhead School of Management. He's had the usual sort of academic career, doing many of the usual sorts of things. Since 2001, he has focused on developing collaborative research and teaching projects to improve the health of the public. His current research interests include statistical process control, observational studies, statistical education, health services research and item response theory. For fun, Dr. Love sings Gilbert and Sullivan operettas, roots from afar for the New York Mets, and tries to keep his handicap under 18, but he spends most of his spare time with his terrific wife and two swell sons.

### **Your Executive Committee**

<b>Position</b>	<b>Name</b>	<b>e-mail</b>
Chair /Program Chair	Marc Kelemen	<a href="mailto:Mjk99@earthlink.com">Mjk99@earthlink.com</a> <a href="mailto:MarcP.Kelemen@energizer.com">MarcP.Kelemen@energizer.com</a>
Vice Chair/Education Chair	Michael Haessly	<a href="mailto:Haessly@myepath.com">Haessly@myepath.com</a>
Secretary/Treasurer	Mark Murphy	<a href="mailto:Mark.murphy@sunmed.com">Mark.murphy@sunmed.com</a>
Recertification Chair	Thomas Copeland	<a href="mailto:Thomascopeland@adelphia.net">Thomascopeland@adelphia.net</a>
Newsletter Editor/Internet Liason	Michael Haessly	<a href="mailto:Haessly@myepath.com">Haessly@myepath.com</a>

# **Akron Section ASME Tour/Talk**

**Akron Section ASME  
Invites Elyria-Lorain ASQ  
TOUR/TALK  
Center for Micro & Nano Processing  
MicroFabrication Laboratory  
Rm. 342, Bingham building  
<http://mems.cwru.edu>  
Case Western Reserve University  
Cleveland, Ohio 44106-7200, USA  
Date: Thursday May 19th 2005, 6:00pm**

Pizza and Pop will be provided. Cost: \$5 members, free for students

Reservations deadline: Thursday, May 12, 2005. Reservations to either [akronasme@mail.com](mailto:akronasme@mail.com) or 330/864-7555. Please leave your name, society affiliation, and a way that we can call or email you back to confirm your reservation.

The Micro-fabrication laboratory is a fully-equipped facility for CMOS and non-CMOS processing, professionally staffed and managed to Design, fabricate, integrate, and evaluate devices, procure funding, manage projects and license intellectual property. Research Includes: Microsensors and microactuators - design/modeling, fabrication, testing, and calibration of sensors and actuators for harsh environments.

Advanced micromachining techniques - bulk micromachining, wafer bonding, surface micromachining, and micromolding/plating. Titanium nickel shape memory alloy - sputter deposition processes with control of film composition and related device fabrication processes. Advanced interface electronics - design and verification of state-of-the-art integrated circuits for sensor/actuator signal conditioning and processing, as well as wireless data links. Advanced Materials Analysis - high-resolution scanning electron microscopy, high-resolution transmission electron microscopy, x-ray diffraction, Auger electron spectroscopy, x-ray photoelectron spectroscopy, secondary ion mass spectroscopy, Rutherford back scattering spectroscopy, nuclear reaction analysis.

## Placement Section - Current Opportunities

Referred by: Michael Haessly - 440-725-1022

<b>Position</b>	<b>Location</b>	<b>Contact</b>
Red-X Engineer	Elyria	Invacare ivcrjobsjw@invacare.com
Trainer/Process Improvement Specialist	Mayfield Heights	AMCO jill.ziegler@amco.net
Quality Engineer	Valley City	MTD careers@mtdproducts.com
Quality Inspector	Cleveland	NESCO channes@nescosource.com
Quality Engineer	Bedford	Morgan Electro Ceramcs Cbaldwin@morganelectroceramics.com
Quality Engineer	Cleveland	Soundwich quality@soundwich.com
Quality Engineer	Cleveland	Anchor Mfg. HRMail@Anchor-Mfg.com

# Statistics Humor

A naive researcher approached a statistician one day about analyzing some data.

Researcher: "How do I test the difference between four treatment group means?"

Statistician: "Perform an Analysis of Variance."

Researcher: "But I don't want to test the difference in the group variances!"

Statistician: "You aren't! You are comparing the ratio of the variation between the group means to the combined variation within the groups to see if it is beyond chance."

Researcher: "You simply don't understand. You persist in talking about variation which does not interest me in the least!"

Statistician(Exasperated and Angry): "O.K. I have an alternative for you which is called the Interocular Test. Just examine any difference in the means and if it STRIKES YOU RIGHT BETWEEN THE EYES, declare it significant!!!"

\*Isn't it rather ironic that the significance of the differences between a set of means can be tested by the ratio of two variances? Sir Ronald Fisher was very cagey when he perfected this seemingly contradictory procedure.

# Events Calendar 2005

## Elyria-Lorain Section 814 ASQ: 2004-05 Event Schedule

Item	Date	Day	Venue	Starts	Organizer	Assist.	Speakers-topics	MaxWell	AAO Stat
EC	13-Jul T		D&B	530 PM	Marc K		Calendar, SMP, SOA, CD's, Vote on CTSC	n/a	n/a
EC	26-Jul M		D&B	530 PM	Marc K		Confirm dates and calendars, approved	n/a	n/a
EC	5-Aug R		Elyria MFG	530 PM	Mike R		SMP review, business plan, Confirm dates and	n/a	n/a
Reg	25-Aug W		E-HI	530 ?	Marc K		Section Calendar Kick Off; Networking	Law # 10	Ep # 8
CTSC	14-Sep T		Great Lakes		Marc K	Mark M	Collaboration meeting with ACS,AICHE,IEEE,ASM,ASME	n/a	n/a
Reg	15-Sep W		E-HI	6:00 PM	Marc K	Mike H	Ron Harmon: Thinking Statistically	Law # 11	n/a
Tour	16-Sep R		Bonne Bell	1-2 PM	Roy D	Kim, Tom	Bonne Bell tour (Westlake) Adv Reservation	n/a	n/a
Civic	1 Sept - 1 Nov				Kim S		ASQ-LifeShare Blood Drive	n/a	n/a
EC	29-Sep T		Elyria MFG	530 PM	Mike R	Marc K	Submit SMP + Budget to natl; Finalize Dec 8	n/a	n/a
Class	5 Oct +	T	L-3-C		Mike H		<b>CQE class: Oct 7-Dec 2 (Tues)</b>	n/a	n/a
CTSC	12-Oct T		Flat Iron		Marc K	Mike H	Board of Governors @ Flat Iron	n/a	n/a
Reg	13-Oct W		E-HI	6:00 PM	Mark M		Ken Murphy: Poka Yoke: Improving quality through innovative error proofing	Law # 12	n/a
Civic	23-Oct Sat		CSU	2:00 PM	ACS	AICHE	Galileo Players at Cleveland State University	n/a	n/a
Reg	10-Nov W		E-HI	6:00 PM	Marc K		Steve Pettyjohn: ASQ & HealthCare	Law # 13	n/a
Reg	8-Dec W		D&B	630-1030	EC		Winter Network; Team Building Mission @ D&B	n/a	n/a
Class	Jan-Feb	R	LCCC	6:00 PM	Mike H	Marc K	<b>CQT class (Underway)</b>	n/a	n/a
Workshop	27-Jan R		Winery	530?	Tom C		Quality Practicum (RU's) @ J.Christ Winery	n/a	n/a
Reg	12-Jan W		E-HI	6:00 PM	Marc K		Mike Crossen aka Mr. Pareto Head	Law # 14	
EC	1-Feb T		Elyria MFG	530 PM	Mike R	Marc K	05-06 Strategic Development		
Reg	9-Feb W		E-HI	6:00 PM	Kim S,		Kim Shumyla: Current Good Manufacturing Practices;	n/a	n/a
Reg	9-Mar W		E-HI	6:00 PM	Marc K	SAS-	Lynn DuPuy: QS-ISO-TS; Mike R: Lean Interactive		
Workshop	1-Apr Fri		Beckett	8 hrs	Kevin Z	Marc K	Ken Street (NASA+SAS): Spectroscopy For Kids and Adults	Law # 15	
Class	Spring	S			Mike H		That Can Behave Like Kids	n/a	n/a
Workshop	Spring	Sat			Mike R	Mark M	Who moved my cheese? AND Emotional Intelligence	n/a	n/a
Reg	13-Apr W		E-HI	6:00 PM	Marc K		<b>CQE class: Starting in April</b>	n/a	n/a
Tour							Quality Practicum (RU's) @ Brew Kettle	n/a	n/a
Reg	18-May W		E-HI	6:00 PM	Marc K		Dr Steven Eppell (CWRU): Hierarchical Learning Teams	Law # 16	
w/ASME	19-May R		CWRU-MFL		Marc K	J.Stearns	(joint w/ John Carroll University)	Law # 17	n/a
EC							TBD	n/a	n/a
Workshop	TBD		L3C ?		Mike H		<b>Thomas Love (CWRU) Multivariate Control (note date)</b>	n/a	n/a
Reg	8-Jun W		Hi meadow?	530 ?	Marc K		Micro-Fabrication Lab & "Nano-technology"	n/a	n/a
Next	class		community		workshop		4 Hr: "Marketing Yourself to Future Employers"	n/a	n/a
							Picnic: Saturday ??		
								rev 5-4-05	

# Certification Calendar 2005

Elyria/Lorain Section 814

## Certification/Exam Dates

Classes are always offered in conjunction with the certification and require a minimum of 6 students.  
If less than 6 students register for a class it may be canceled.

Exam Date	June 4, 2005	October 22, 2005	December 3, 2005
Registration Date	April 22, 2005	August 19, 2005	October 7, 2005
Mechanical Inspector Certification (CMI)		XXXXXX	
Quality Auditor Certification (CQA)	XXXXXX		XXXXXX
Quality Auditor Certification-Biomedical (CQA-Biomedical)		XXXXXX	
Quality Auditor Certification-HACCP (CQA-HACCP)		XXXXXX	
Quality Engineer Certification (CQE)	XXXXXX		XXXXXX
Quality Improvement Associate Certification (CQIA)	XXXXXX		XXXXXX
Quality Manager Certification (CQM)		XXXXXX	
Quality Technician Certification (CQT)		XXXXXX	
Reliability Engineer Certification (CRE)		XXXXXX	
Six Sigma Black Belt Certification (CSSBB)		XXXXXX	
Software Quality Engineer Certification (CSQE)	XXXXXX		XXXXXX
Calibration Technician Certification (CCT)	XXXXXX		XXXXXX

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**MEETING: May 18<sup>th</sup>, 2005**