CQPI

To rise to the challenge of the international quality revolution, the Center for Quality and Productivity Improvement (CQPI), a research center, was founded in October of 1985. Since its inception, CQPI has been at the forefront in the development of new techniques for improving the quality of products and processes.

Today, CQPI's Systems Engineering Initiative for Patient Safety (SEIPS) is the foremost leader in a comprehensive application of Human Factors and Systems Engineering to the patient safety challenge. CQPI/SEIPS is the recipient of multiple federal, foundation, and industry supported research projects for patient safety, quality of healthcare processes, quality of working life and human factors approaches for improved technology implementation. The various project teams on these studies are multidisciplinary, including investigators and partners in Human Factors and Systems Engineering, Nursing, Medicine and Pharmacy.

Statement of Need

This short course is designed to provide an understanding of human factors and systems engineering and how this approach to patient safety can improve performance, prevent harm when error does occur, help systems recover from error, and mitigate further harm.

Intended Audience and Scope of Practice

This educational activity is designed for Primary care, ICU, and ER physicians, Physician assistants, Nurses, Information technologists, Research scientists, Quality management, Pharmacists, CEOs, Middle and upper management, Engineers, Patient safety officers and other professionals interested in human factors engineering and patient safety who work in the healthcare field..

Specific Learning Objectives

At the conclusion of this activity, participants should be able to:

- Identify the objectives of human factors engineering
- Facilitate the use of human factors engineering to improve patient safety
- Summarize the characteristics of a system and the implications for system design
- Evaluate medical device design and usability issues for patient safety
- Identify cognitive ergonomics issues, such as information processing and human error
- Recognize organizational issues related to patient safety (e.g., transitions of care, communication, teamwork, process analysis)
- Assess the physical environment for patient safety
- List examples of physical environment issues and patient safety
- Identify methods for workload management
- Identify human characteristics, capabilities and limitations
- Recognize challenges to the application of HFE and patient safety
- Attain skills in usability of health IT
- Evaluate the impact of health IT on patient care processes
- Utilize human factors engineering principles for implementing health IT

Schedule ▪ 2010

SEIPS PART I – The Basics of HFE and Patient Safety

	Time	Session	Speaker
Monday, July 26	**AM**		
	7:00-8:00	**Breakfast and Registration**	
	8:00-8:30	**Overview and Course Objectives**	Pascale Carayon
	8:30-10:00	**Human Factors Engineering in Healthcare: Organizational Issues and the Role of the Healthcare Provider**	Robert L. Wears
	10:00-10:15	*Break*	
	10:15-12:15	**What is Human Factors Engineering, What is an Error and What is a System-1**	Ben-Tzion Karsh
	PM		
	12:15-1:15	*Lunch*	
	1:15-2:45	**What is Human Factors Engineering, What is an Error and What is a System-2**	Ben-Tzion Karsh
	2:45-3:00	*Break*	
	3:00-5:00	**The Physical Environment and Ergonomics**	Carla J. Alvarado
	5:00-6:30	*Reception*	Attendees, Faculty
Tuesday, July 27	**AM**		
	7:00-8:00	**Breakfast and Conversation**	
	8:00-10:00	**Cognitive Ergonomics**	Douglas A. Wiegmann
	10:00-10:15	*Break*	
	10:15-11:15	**Job Design and Workload**	Pascale Carayon
	11:15-12:15	**Usability Principles and Methods**	Ann Schoofs Hundt
	AM		
	12:15-1:15	*Lunch*	
	1:15-2:45	**Technology Design and Usability - 1**	John W. Gosbee
	2:45-3:00	*Break*	
	3:00-4:00	**Technology Design and Usability - 2**	John W. Gosbee
	4:00-5:00	**Case Study Analysis**	Attendees, Faculty
	5:00-6:00	**Graduate Student Poster Session**	Attendees, Faculty, Students
Wednesday, July 28	**AM**		
	7:00-8:00	*Breakfast and Conversation*	
	8:00-10:00	**Application of Human Factors Engineering to Healthcare and Patient Safety**	Matthew Scanlon
	10:00-10:15	*Break*	
	10:15-11:45	**Team Activity and Poster Session**	Attendees, Faculty
	11:45-12:00	**Wrap-up and Evaluations**	Pascale Carayon, Faculty
	12:00-1:00	*Lunch*	

SEIPS PART II – HFE and Health Information Technology

	Time	Session	Speaker
Wednesday, July 28	**PM**		
	12:00-1:00	*Lunch and Registration*	
	1:00-1:30	**Overview and Course Objectives**	Pascale Carayon
	1:30-3:15	**Usability of Health IT – Practical Experience**	Matthew C. Scanlon
	3:15-3:30	*Break*	
	3:30-5:30	**Human Factors Engineering Principles of Health IT Design**	Ben-Tzion Karsh
	5:30-6:30	*Reception*	Attendees, Faculty
Thursday, July 29	**AM**		
	7:00-8:00	*Breakfast and Conversation*	
	8:00-9:45	**Physical Ergonomics**	Mary Sesto
	9:45-10:00	*Break*	
	10:00-12:00	**Impact of Health IT on Patient Care Processes and Tasks**	Pascale Carayon, Carla J. Alvarado
	PM		
	12:00-1:00	*Lunch*	
	1:00-2:45	**Impact of Health IT on Patient Care Processes and Tasks**	Pascale Carayon, Carla J. Alvarado
	2:45-3:00	**Break**	
	3:00-5:00	**Healthcare Professionals' Interaction with Health IT**	Shawna Perry
Friday, July 30	**AM**		
	7:00-8:00	*Breakfast and Conversation*	
	8:00-10:00	**Human Factors of Implementing Health IT**	Ben-Tzion Karsh
	10:00-10:15	*Break*	
	10:15-12:00	**Human Factors of Implementing Health IT**	Ben-Tzion Karsh
	PM		
	12:00-2:00	**A Provider's Conversion Experience** *(Box Lunch Available)*	Shawna Perry
	2:00-2:30	**Wrap-up and Evaluations**	Pascale Carayon, Faculty

Faculty

Pascale Carayon, PhD
Director CQPI, Procter & Gamble
Bascom Professor in Total Quality
Industrial and Systems Engineering
University of Wisconsin-Madison
Madison, WI

Carla J. Alvarado, PhD, CIC
Research Scientist, CQPI and
SEIPS Short Course Coordinator
University of Wisconsin-Madison,
Madison, WI

John W. Gosbee, MD, MS
Human Factors Engineering and
Healthcare Specialist
Michigan Health Systems
Ann Arbor, MI

Ann Schoofs Hundt, PhD
Research Scientist, CQPI
University of Wisconsin-Madison
Madison, WI

Ben-Tzion Karsh, PhD
Associate Professor, Industrial and
Systems Engineering
University of Wisconsin-Madison
Madison, WI

Shawna Perry, MD
Director for Patient Safety Systems
Engineering, Associate Professor
and Associate Chair Department of
Emergency Medicine VCU Health
Systems, Richmond, VA

Matthew C. Scanlon, MD
Associate Medical Director of The
Pediatric Intensive Care Unit and
Assistant Professor of Pediatrics
Medical College of Wisconsin
Milwaukee, WI

Mary E. Sesto, PhD
Assistant Professor
School of Medicine and Public
Health and Industrial and Systems
Engineering
University of Wisconsin-Madison
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Robert L. Wears, MD
Professor, Emergency Medicine
and Director of Medical
Informatics University of Florida
College of Medicine
Jacksonville, FL

Douglas A. Wiegmann, PhD
Associate Professor, Industrial
and Systems Engineering
University of Wisconsin-Madison
Madison, WI

General Information

Dates: July 26-30, 2010

Place: Pyle Center
702 Langdon Street
Madison, WI 53706

Phone: 608/262-1122

Fax: 608/262-8516

Conference Housing

Blocks of rooms are reserved at the following hotels. Please call or write to the hotels directly to reserve your accommodation.

DoubleTree® Hotel – Madison

525 West Johnson Street, Madison, WI 53703
Phone: 608/251-5511 or 800.222.8733
www.doubletreemadison.com
Rates: $139
Reservations must be made prior to June 25, 2010
Please reference SEP

The Edgewater Hotel

666 Wisconsin Avenue, Madison, WI 53703
phone: 800.922.5512
www.theedgewater.com
Rates: $139
Reservations must be made prior to June 25, 2010
Please reference MZ0000

Conference Fees

- $1,500 **Part I only** - First Registrant from an Organization
- $1,000 **Part I only** - Each Additional Registrant from the Same Organization
- $1,500 **Part II only** - First Registrant from an Organization
- $1,000 **Part II only** - Each Additional Registrant from the Same Organization
- $1,300 **Part II only** - Past Part I Short Course Attendees
- $2,200 **Part I and Part II** - First Registrant from an Organization
- $2,000 **Part I and Part II** - Each Additional Registrant from the Same Organization

The conference fee includes the cost of tuition, materials, an opening reception, breakfasts, refreshment breaks, lunches, and a nonrefundable registration fee of $50. Should you cancel your registration up to 72 hours prior to the conference; you will be refunded the entire conference fee except the $50 nonrefundable portion. No refunds will be made after that time.

Four Easy Ways To Register

By Mail: Return your completed registration form and payment (Step 5 registration form)

By Phone: 608/262-1397. Please call and give your billing information or pay by MasterCard, VISA, or American Express

By Fax: 1-800/741-7416 (in Madison Fax 265-3163)

On Line: http://www.ocpd.wisc.edu Click on course catalog

Confirmations

All registrations are confirmed in writing. If you do not receive a confirmation, please call 608/262-1397.

Conference Attire

Since meeting room temperatures and personal comfort levels vary, it is recommended that you bring a sweater or jacket.

For Further Information

Teresa N. Thuemling
CQPI, 3134 ECB, 1550 Engineering Drive
Madison, WI 53706; phone: 608/890-0265 or
608/263-2520; tthuemling@cqpi.engr.wisc.edu

Amy Meyer
Office of Continuing Professional Development
in Medicine and Public Health
2701 International Lane, Suite 208
Madison, WI 53704

phone: 303/362-1867, fax: 608/240-6040
ammeyer@ocpd.wisc.edu

Registration Form

SEIPS Short Course on Human Factors Engineering and Patient Safety
▪ Part I and Part II on Health IT

Part I: July 26-28, 2010 ▪ Part II: July 28-30, 2010

Please complete Steps 1-5 below in BLOCK letters

Step 1. Participant Information:

Name

                First   MI   Last

Professional Degree (for credit & name badge)

Company Name

Dept. Name or Mail Code

Work Address

City, State, Zip

Day Phone

FAX

E-mail

❑ I request vegetarian options for my meals

Step 2. Confirmation:

❑ Work Address (as provided in Step 1) - or - ❑ Home Address

Home Address

City, State, Zip

Step 3. Registration Fees:

❑ $1,500 Part I only - First Registrant from an Organization

❑ $1,000 Part I only - Each Additional Registrant from the Same Organization

❑ $1,500 Part II only - First Registrant from an Organization

❑ $1,000 Part II only - Each Additional Registrant from the Same Organization

❑ $1,300 Part II only - Past SEIPS Short Course Attendees

❑ $2,200 Part I and Part II - First Registrant from an Organization

❑ $2,000 Part I and Part II - Each Additional Registrant from the Same Organization

TOTAL FEE REMITTED:

____ PO or check enclosed (payable to University of Wisconsin)

____ Please bill my company

____ Credit Card: ❑ MasterCard;   ❑ VISA;   ❑ American Express

        Cardholder's Name

        Card Number

        Expiration Date

Step 4. Where did you learn about this short course? *Check all that apply*

❑ Colleague   ❑ Brochure   ❑ Advertisement   ❑ Internet   ❑ Other

Step 5. Please return your payment with this form to:

Kathy Kneebone, The Pyle Center, 702 Langdon Street, Madison, WI 53706
or Fax 1-800/741-7416 (in Madison Fax 265-3163).

Quotes from past course attendees:

"Thanks again for the exceptional experience. The class is really life/mind changing as evidenced by coming back to a potential event and my first thought was not, who messed up, rather I wonder what else was going on, how many lines were running etc, etc!"

"Thanks for all these materials, and thanks again for the wonderful course -I very much enjoyed it. So yes, the course has changed the way I look at things..."

"Thanks again for the great effort you put to organize an excellent course."

"Thank you so much for the wonderful experience! The class has opened my eyes and re-charged my batteries."

"Awesome course! Top-notch organization and instruction. Thank you for a successful and valuable week of learning!"

"This is a tremendous short course. The instruction and resources you provided us are tremendously helpful."

"What a great experience. I felt as though I had returned to college! The beautiful university setting, the outstanding professors...great course!"

The College of Engineering
University of Wisconsin-Madison

Systems Engineering Initiative for Patient Safety (SEIPS) Short Course on Human Factors Engineering and Patient Safety ▪ Part I and Part II on Health IT

Please Route to:

☑ PATIENT SAFETY OFFICER

☑ QUALITY IMPROVEMENT

☑ RISK MANAGEMENT

☑ MEDICAL INFORMATICS/IT

☑ INFECTION CONTROL

THE UNIVERSITY OF WISCONSIN–MADISON

July 26-30, 2010
Pyle Center, University of Wisconsin-Madison

Systems Engineering Initiative for Patient Safety (SEIPS)

SEIPS Short Course on Human Factors Engineering and Patient Safety Part I and Part II on Health IT

This two-part, five-day course for professionals presents nationally recognized speakers discussing a variety of Patient Safety topics and Human Factors Engineering (HFE) including:

Part I: The Basics of HFE & Patient Safety

• Human Factors Engineering
• Sociotechnical Systems and Macroergonomics
• Design of the Physical Environment and Ergonomics
• Cognitive ergonomics
• And more…

Part II: HFE & Health Information Technology

• Usability of Health IT
• Impact of Health IT on Patient Care Processes
• Human Factors of Implementing Health IT
• And more...

For short course schedule and registration information go to: **http://cqpi.engr.wisc.edu/shortcourse_home**

Jointly sponsored by the University of Wisconsin-Madison Center for Quality and Productivity Improvement (CQPI) and the University of Wisconsin School of Medicine and Public Health, Office of Continuing Professional Development in Medicine and Public Health