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, Pharmacy and Health Services Research.

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 Physicians, Physician assistants, Nurses, Information technologists, Research scientists, Quality improvement specialists, Pharmacists, CEOs, Middle and upper management Engineers, Risk management professionals, Infection control professionals, Patient safety officers and other professionals interested in human factors engineering and patient safety.

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

- Identify the objectives of Human Factors Engineering (HFE)
- Understand the use of HFE to improve patient safety
- Describe the characteristics of a system and the implications for system design
- Identify human characteristics, capabilities and limitations
- Recognize challenges to the application of HFE and patient safety
- Evaluate medical device design and usability issues for patient safety
- Identify ergonomic issues, such as information processing and human error
- Recognize organizational issues related to patient safety (e.g., transitions of care, communication, resilience)
- Understand the role of the physical environment in patient safety
- Evaluate the impact of health IT on workflow and patient care processes
- Utilize HFE principles for implementing health IT
- Understand the role of care provider and patient trust with health IT
- Evaluate the physical environment and layout for optimal health IT use

SEIPS Part I - The Basics of HFE and Patient Safety

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-8:00 am</td>
<td>Breakfast and Registration</td>
</tr>
<tr>
<td>8:00 am-5:30 pm</td>
<td>Overview and Course Objectives</td>
</tr>
<tr>
<td>5:30-6:30 pm</td>
<td>The Physical Environment</td>
</tr>
<tr>
<td>7:00-8:00 am</td>
<td>Introduction to Human Factors Engineering</td>
</tr>
<tr>
<td>8:00 am-5:30 pm</td>
<td>Sociotechnical Systems</td>
</tr>
<tr>
<td>5:30-6:30 pm</td>
<td>Human Factors Engineering in Healthcare</td>
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</table>

SEIPS Part II - HFE and Health Information Technology

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>12:00-1:00 pm</td>
<td>Lunch and Registration</td>
</tr>
<tr>
<td>1:00-5:30 pm</td>
<td>Overview and Course Objectives</td>
</tr>
<tr>
<td>5:30-6:30 pm</td>
<td>Human Factors of Health IT in Practice</td>
</tr>
<tr>
<td>7:00-8:00 am</td>
<td>Human Factors of Health IT</td>
</tr>
<tr>
<td>8:00 am-5:30 pm</td>
<td>Workstation Design and Layout</td>
</tr>
<tr>
<td>5:30-6:30 pm</td>
<td>Healthcare Professionals’ Interaction with Health IT</td>
</tr>
</tbody>
</table>

Schedule • 2012

Monday, July 16

- Overview and Course Objectives
- Introduction to Human Factors Engineering and Sociotechnical Systems
- Human Factors Engineering in Healthcare – Practical Applications
- The Physical Environment
- Introduction to the Case Study

Tuesday, July 17

- Cognitive Ergonomics
- Usability Principles and Methods
- Technology Design and Usability
- Case Study Analysis

Wednesday, July 18

- Research Poster Session

Thursday, July 19

- Organizational Design and Resilience
- Team Activity and Poster Session
- Wrap-up and Evaluation

Friday, July 20

- Human Factors of Health IT Implementation
- Trust and Health IT
- A Provider’s Conversion Experience
- Wrap-up and Evaluation

THE UNIVERSITY OF WISCONSIN-MADISON
CQPI

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

Part II:
• Human Factors Design of Health IT
• Usability of Health IT
• And more...

July 16-20, 2012 • Lowell Center, University of Wisconsin-Madison

Systems Engineering Initiative for Patient Safety (SEIPS)
SEIPS Short Course on Human Factors Engineering and Patient Safety • Part I on Basics of HFE and Patient Safety and Part II
**General Information**

**Dates:**
July 16-20, 2012

**Place:**
Lowell Center
430 Langdon Street
Madison, WI 53703

**Phone:**
608-256-3261
**Fax:**
608-256-5445

**Conference Housing**
Blocks of rooms are reserved at the following hotels.
Please call or write to the hotels directly to reserve your accommodation. For further details, please visit http://ocpl.wisc.edu/shortcourse_accommodation

- **DoubleTree® Hotel – Madison**
  525 West Johnson Street, Madison, WI
  Phone: 608/292-5311 or 800/222-8733
  www.doubledotemadison.com
  Rates: $129
  Reservations must be made prior to June 18, 2012.

- **The Edgewater Hotel**
  666 Wisconsin Avenue, Madison, WI 53703
  Phone: 608/222-5312
  www.theedgewater.com
  Rates: $140
  Reservations must be made prior to June 16, 2012. Please reference code.

**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 - Part I Short Course Attendee
- $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, breaks, lunches, and a nonrefundable registration fee of $50. Please cancel your registration up to 72 hours prior to the conference; you will be refunded the registration fee minus the nonrefundable portion.

**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.

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**Four Easy Ways To Register**

**On Line:**
Go to www.ocpl.wisc.edu, click on “Course Catalog” near the bottom of the left column, scroll down the list of educational activities until you see the date of 07/16/2012; and select “SEIPS Short Course on Human Factors Engineering” and Patient Safety Part I on Basics of HFE and Patient Safety and Part II on HFE and Health IT.

**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 263-3163)

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**For Further Information**

- **Teresa N. Thomsing, COPR, COBT, 150 Engineering Drive Madison, WI 53707; phone: 608/990-0265 or 608/263-2520; http://cqi.engr.wisc.edu; tthomsing@engr.wisc.edu**
- **Amy Meyer**
  Office of Continuing Professional Development in Medicine and Public Health
  2701 International Lane, Suite 208
  Madison, WI 53704
  Phone: 608-240-2144, fax: 608-240-6440
  amymeyer@po.cqpi.wisc.edu

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**Credit Designation Statement**
The University of Wisconsin School of Medicine and Public Health designates this live activity for a maximum of 37.50 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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**Total CME Fee**
Total CME Fee (Part I and Part II)

**Step 1. Please return your payment with this form to:**
CME Specialist, The Pyle Center, 702 Langdon Street, Madison, WI 53706 or Fax 1-800-741-7416 (in Madison Fax 263-3163)

---

**Quotes from past conference attendees:**

“This once again your focus on participant experience was exemplary! Thank you. Discussion of examples were very rich and helpful.”

“Thanks again for the exceptional experience. The class is really life/mind changing as evidenced by coming back a potential event and my first thought was not, who missed up, rather I wonder what else was going on, how many lines were running 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 you so much for the wonderful experience! The class has opened my eyes and re-charged my batteries.”

“Aweasome 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!”

---

**Faculty**

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Research Scientist, COPR
University of Wisconsin-Madison, Madison, WI

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Michigan State University, East Lansing, MI

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Research Scientist, COPR
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Professor, Emergency Medicine and Director of Medical Informatics, University of Florida College of Medicine, Jacksonville, FL

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**Yan Xiao, PhD**
Director of Patient Safety Research
 Baylor Health Care System, Dallas, TX
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Professor, Emeritus, Medicine and Director of Medical Informatics, University of Florida
College of Medicine
Jacksonville, FL

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Raylor Health Care System
Dallas, TX

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group/personalized/WMNSTDSTF/SEP-2012/751/
index.jsp?d=1240006
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Four Easy Ways To Register
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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)

For Further Information
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CQPI, 3124 ECR, 1550 Engineering Drive
Madison, WI 53706
Phone: 608/990-0265 or 608/262-2520
http://cpge.engr.wisc.edu/
Rates: $129
Ami Meyer
Office of Continuing Professional Development in Medicine and Public Health
2701 International Lane, Suite 208
Madison, WI 53704
Phone: 608/240-2144, Fax: 608/240-6480
AmiMeyer@ofp.ed.wisc.edu

Accreditation Statement
This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the University of Wisconsin School of Medicine and Public Health and the University of Wisconsin-Madison, Center for Quality and Productivity Improvement. The University of Wisconsin School of Medicine and Public Health is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Credit Designation Statement
The University of Wisconsin School of Medicine and Public Health designates this live activity for a maximum of 27.50 AMA PRA Category I™ Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Continuing Education Units
The University of Wisconsin-Madison, as a member of the University Continuing Education Association (UCEA), authorizes this program for 3.75 continuing education units (CEUs) of 30-37.5 hours.

Policy on Disclosure
It is the policy of the University of Wisconsin School of Medicine and Public Health that the faculty, authors, reviewers, and others who influence content of the CME activity disclose all relevant financial relationships with commercial interests in order to allow CME staff to identify and resolve any potential conflict of interest. Faculty must also disclose any planned discussion of unlabeled/unapproved uses of drugs or devices during their presentation. Detailed disclosures will be made in the activity materials.

Elements of Competence
The CME activity has been designed to enhance learner competence and focuses on the American Board of Medical Specialties area of systems-based practice.

Registration Form

SEIPS Short Course on Human Factors Engineering and Patient Safety
• Part I on the Basics of HFE and Patient Safety and Part II on HFE and Health IT

Part I: July 16-18, 2012 Part II: July 18-20, 2012

Please complete Steps 1-5 below in BLOCK letters

Step 1. Participant Information:

Name:________________________
Telephone:________________________
Fax:________________________
E-mail:________________________

Professional Degree (for credit & name badge):________________________
Company Name:________________________
Dept:________________________
Mail Code:________________________
Address:________________________
City, State, Zip:________________________

Date of Birth:________________________
Expires:________________________

Step 2. Confirmation:

Work Address (us provided in Step 1) or:________________________
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
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$2,200 Part I and Part II - Each Additional 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 hear about this short course? Check all that apply

• Colleague

• Conference

• Advertisement

• Internet

• Other

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

CVD Specialist, The Pyle Center, 702 Langdon Street, Madison, WI 53706 or fax 1-800/741-7416 (in Madison Fax 265-3163)

#9012 ame-cqpi

Effective January 1, 2012, we will no longer accept credit card payment on the day of the activity.

Quotes from past conference attendees:

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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

- Human Factors Design of Health IT
- Workflow Analysis of Health IT
- Human Factors of Implementing Health IT
- Medical informatics/IT
- Infection control
- Infection prevention

THE UNIVERSITY OF WISCONSIN–MADISON

July 16-20, 2012 • Lowell Center, University of Wisconsin-Madison

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

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

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