



August 29–September 2, 2005  
 Pyle Center, University of Wisconsin–Madison  
 Madison, WI

## Systems Engineering Initiative for Patient Safety (SEIPS) Short Course on Human Factors Engineering and Patient Safety—Part I & Part II

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

### Part I

- Human Factors Engineering
- Sociotechnical Systems and Macroergonomic
- Design of the Physical Environment and Ergonomics
- And more...

### Part II

- Failure Modes and Effects Analysis (FMEA)
- Root Cause Analysis (RCA)
- Crew Resource Management (CRM)
- Probability Risk Analysis
- And more...

[www.fpm.wisc.edu/seips](http://www.fpm.wisc.edu/seips)

Jointly sponsored by the University of Wisconsin Center for Quality and Productivity Improvement (COPI) and the University of Wisconsin Medical School Office of Continuing Medical Education

***E*** *The College of Engineering*  
 University of Wisconsin-Madison

Center for Quality and Productivity Improvement  
 610 Walnut Street/575 WARF Building  
 Madison, Wisconsin 53726

**Systems Engineering Initiative for Patient Safety (SEIPS) Short Course on Human Factors Engineering and Patient Safety—Part I and Part II**

Please Route to:

- PATIENT SAFETY OFFICER \_\_\_\_\_
- QUALITY IMPROVEMENT \_\_\_\_\_
- INFECTION CONTROL PROFESSIONAL \_\_\_\_\_
- RISK MANAGEMENT \_\_\_\_\_

## FACULTY



**Carla J. Alvarado, Ph.D.**, Research Scientist CQPI (SEIPS Short Course Coordinator), University of Wisconsin–Madison



**Pascale Carayon, Ph.D.**, Professor, Industrial and Systems Engineering, and Director CQPI, University of Wisconsin–Madison



**David H. Gustafson, Ph.D.**, Research Professor, Industrial and Systems Engineering, University of Wisconsin–Madison



**Ben-Tzion Karsh, Ph.D.**, Assistant Professor, Industrial and Systems Engineering, University of Wisconsin–Madison



**Bruce R. Thomadsen, Ph.D.**, Associate Professor, Medical Physics, University of Wisconsin–Madison



**Vicki M. Bier, Ph.D.**, Professor, Industrial and Systems Engineering, University of Wisconsin–Madison



**John W. Gosbee, M.D., M.S.**, Human Factors Engineering and Health Care Consultant, Ann Arbor, MI



**Ann Schoofs Hundt, Ph.D.**, Research Scientist CQPI, University of Wisconsin–Madison



**Eduardo Salas, Ph.D.**, Professor of Psychology, University of Central Florida



**Robert L. Wears, M.D.**, Professor, Emergency Medicine, University of Florida College of Medicine

## CQPI

Founded in 1985, the University of Wisconsin **Center for Quality and Productivity Improvement (CQPI)** is recognized for multidisciplinary research, requiring input and interaction from many different fields. Since its inception, CQPI has been at the forefront in the development of new techniques for improving the quality of products and processes. Today, the Center's Systems Engineering Initiative for Patient Safety (*SEIPS*) is also at the forefront of developing methods aimed at improving the quality of healthcare work processes, quality of working life, and quality of healthcare patient safety.

**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 (ACCME) through the joint sponsorship of the Center for Quality and Productivity Improvement, University of Wisconsin–Madison and The University of Wisconsin Medical School. The University of Wisconsin Medical School is accredited by the ACCME to provide continuing medical education for physicians.

**Credit Designation Statement:** The University of Wisconsin Medical School designates this educational activity as follows: **Part I:** 16.0 category 1 credits, 1.6 CEUs (16 hours); **Part II:** 16.0 category 1 credits, 1.6 CEUs

## SPECIFIC LEARNING OBJECTIVES

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

- Identify the objectives of human factors engineering
- Promote the use of human factors engineering to minimize patient related error
- Recognize the difference between micro and macro human factors engineering approaches
- Summarize what a system is, and what are the implications for its design
- Target and evaluate medical device design and usability issues for patient safety
- Identify cognitive ergonomics issues, such as information processing and human error
- Understand organizational issues related to patient safety (e.g. transitions of care, communication, teamwork, process analysis).
- Ability to assess the physical environment for patient safety associated issues
- Give examples of physical environment issues and patient safety
- Improve situational awareness
- Improve workload management
- Reduce the risk of harm to patients through a teamwork approach to patient safety and quality of care
- Identify human characteristics, capabilities and limitations
- Recognize interfaces between job, person and environment
- Develop team skills and behaviors which reduce the occurrence of clinical errors.
- Attain skills in the HFE method of usability testing and how it fits into proactive risk assessment (e.g., FMEA) and problem investigation

(16 hours) toward the AMA Physician's Recognition Award. Each physician should claim only those credits that he/she actually spent in the activity.

**Continuing Education Units:** This program is accredited by the University of Wisconsin, Continuing Medical Education, for up to 3.2 CEUs (32 hours). This credit applies to nurses, engineers, and other health professionals.

**American Osteopathic Association, American Academy of Physicians Assistants:** AOA and AAPA accept AMA category 1 for their credit requirements.

**Conference Completion Report:** You will be mailed a completion report 4 to 6 weeks after the conference.

### Policy on Faculty and Sponsor Disclosure

It is the policy of the University of Wisconsin Medical School that the faculty and sponsor disclose real or apparent conflict of interest relating to the topics of this educational activity, and also disclose discussions of unlabeled/unapproved uses of drugs or devices during their presentation(s). Detailed disclosure will be made in the course handout materials.

### Intended Audience

This educational activity is designed for all physicians, nurses, physician assistants, pharmacists, engineers, patient safety officers, and other professionals interested in human factors engineering and patient safety.

# Systems Engineering Initiative for Patient Safety (SEIPS) Short Course on Human Factors Engineering and Patient Safety—Part I and Part II

August 29–September 2, 2005  
University of Wisconsin–Madison  
702 Langdon Street  
Madison, WI 53706–1487

## GENERAL INFORMATION

### 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
- \$1,250 Part II only—2004 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, a nonrefundable registration fee of \$75, an opening reception, breakfasts, refreshment breaks, and lunches. Should you cancel your registration up to 72 hours prior to the short course, you will be refunded the entire short course fee except the \$75.00 nonrefundable portion of the fee. No refunds will be made after that time.

### For further course information

For short course information please contact Dr. Carla J. Alvarado (Course Coordinator), CQPI, 575 WARF, 610 Walnut Street, University of Wisconsin–Madison, Madison, WI 53726; telephone (608) 263–2678 or (608) 263–2520. Email: [calvarado@cqpi.engr.wisc.edu](mailto:calvarado@cqpi.engr.wisc.edu)

## SCHEDULE

### Part I

7:30–8:30 a.m.  
8:30–9:00 a.m.  
9:00–10:00 a.m.  
10:00–10:15 a.m.  
10:15 a.m.–12:00 p.m.  
  
12:00–1:00 p.m.  
1:00–2:45 p.m.  
  
2:45–3:00 p.m.  
3:00–5:00 p.m.  
5:00–6:30 p.m.

7:30–8:30 a.m.  
8:30–10:30 a.m.  
10:30–10:45 a.m.  
10:45 a.m.–12:00 p.m.  
12:00–1:00 p.m.  
2:30–5:00 p.m.

7:30–8:30 a.m.  
8:30–10:00 a.m.  
10:00–10:15 a.m.  
10:15–11:30 a.m.  
11:30 a.m.–12:00 p.m.

### Part II

12:30–2:00 p.m.  
2:00–2:30 p.m.  
2:30–4:30 p.m.  
4:30–5:30 p.m.  
5:30–6:30 p.m.

7:30–8:30 a.m.  
8:30–10:30 a.m.  
10:30–10:45 a.m.  
10:45–12:00 noon  
12:00–1:00 p.m.  
1:00–2:45 p.m.  
2:45–3:00 p.m.  
3:00–5:00 p.m.

7:30–8:30 a.m.  
8:30–10:15 a.m.

10:30–10:45 a.m.  
10:45–12:45 p.m.  
12:45–2:00 p.m.

### Monday, August 29, 2005

**Breakfast and Registration**  
**Overview and Course Objectives** Dr. Pascale Carayon  
**Overview of Human Factors Engineering and Patient Safety** Dr. David H. Gustafson  
*Break*  
**What is Human Factors Engineering, What is an Error and What is a System–1** Dr. Ben-Tzion Karsh  
*Lunch*  
**What is Human Factors Engineering, What is an Error and What is a System–2** Dr. Ben-Tzion Karsh  
*Break*  
**The Physical Environment and Ergonomics** Dr. Carla J. Alvarado  
*Reception* Attendees and Faculty

### Tuesday, August 30, 2005

**Breakfast and Conversation**  
**Technology Design and Usability** Dr. John W. Gosbee  
*Break*  
**Cognitive Ergonomics** Dr. Pascale Carayon  
*Lunch*  
**Job and Organizational Issues** Dr. Robert L. Wears, Dr. Pascale Carayon

### Wednesday, August 31, 2005

**Breakfast and Conversation**  
**Case Studies and Applications** Attendees and Faculty  
*Break*  
**Role of Healthcare Provider** Dr. Robert L. Wears  
**Wrap-up and Evaluations (Box Lunch)** Faculty

### Wednesday, August 31, 2005

**Registration and Lunch**  
**Overview and Course Objectives** Dr. Pascale Carayon  
**Work System Analysis** Dr. Ben-Tzion Karsh  
**Task Analysis** Dr. Carla J. Alvarado  
*Reception* Attendees and Faculty

### Thursday, September 1, 2005

**Breakfast and Conversation**  
**Crew Resource Management** Dr. Eduardo Salas  
*Break*  
**Crew Resource Management and Team Work** Dr. Eduardo Salas  
*Lunch*  
**Probabilistic Risk Assessment** Dr. Vicki M. Bier  
*Break*  
**Root cause analysis, Failure Modes and Effects Analysis and human error taxonomies** Dr. Bruce R. Thomadsen

### Friday, September 2, 2005

**Breakfast and Conversation**  
**Usability Testing —A Prospective Analysis and Assessment for Patient Safety** Dr. Ann Schoofs Hundt  
*Break*  
**Organizational Change** Dr. Pascale Carayon  
**Wrap-up and Evaluations (Box Lunch)** Faculty

# REGISTRATION

Register online at [www.peopleware.net](http://www.peopleware.net) or use the form below.

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

Part I August 29-31, 2005

Part II August 31 - September 2, 2005

Complete a separate registration form (or copy) for each registrant.

Name \_\_\_\_\_

Company/Affiliation \_\_\_\_\_

Address \_\_\_\_\_

Circle one: Home or Business address

City/State/Zip \_\_\_\_\_

Daytime Phone \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_

### Registration Fees:

#### PART I

- \$1,500 Part I only - First Registrant from an Organization
- \$1,000 Part I only - Each Additional Registrant from the Same Organization

#### Additional Option:

- Yes, I prefer vegetarian meals

#### PART II

- \$1,500 Part II only - First Registrant from an Organization
- \$1,000 Part II only - Each Additional Registrant from the Same Organization
- \$1,250 Part II only - 2004 Part I Short Course Attendees

#### PARTS I and II

- \$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 Enclosed

Checks payable to **UW-Madison**

- Check attached.
- Bill Purchase Order Number: \_\_\_\_\_
- Please charge on the following account:

_____ VISA	_____ Master Card	Exp. Date _____
Card Number _____		
Name on Card _____		
Signature _____		

If you have registration questions, please call CALS Conference Services at 608-263-1672.  
No phone registrations please.

#### Mail or fax this form to:

UW-Madison CALS Conference Services  
620 Babcock Drive  
Madison, WI 53706  
FAX: 608-262-5088

The University of Wisconsin provides equal opportunities in employment and programming, including Title IX requirements.

The University of Wisconsin Medical School fully complies with the legal requirements of the ADA and the rules and regulations thereof. If any participant in this educational activity is in need of accommodations, please notify Dr. Carla J. Alvarado in order to receive service. Please call (608) 263-2678.

# ACCOMMODATIONS

Blocks of rooms are reserved at the following hotels. Please call or write to the hotels directly to reserve your accommodation. Be sure to reference the short course "CQPI/SEIPS" to receive the special room rate.

### Double Tree Hotel—Madison

525 West Johnson Street  
Madison, WI 53703-1993

Phone: 608/251-5511

Fax: 608/251-4824

Rates: \$95/single, \$105/double  
Reservations must be made prior to July 29, 2005.

### The Campus Inn

601 Langdon Street  
Madison, Wisconsin 53703

Phone: 608/257-4391 or

800-589-6285 Fax: 608/257-2832

info@thecampusinn.com

Rate: \$105/single, \$120/double

Reservations must be made prior to July 15, 2005.

