Part I - Low Back:
Attendees will learn:
• Introduction to low back pain
• Biomechanical basis for low back pain
• Risk factors for low back pain
• Preventive approaches to low back pain:
  • Ergonomics Assessment - what data is necessary, and how to collect it
  • Guidelines for prevention of low back pain
• Job analysis methods
• What method to use, when to use, how to interpret results
  1. Ratings of Perceived Exertion
  2. Maximum Acceptable Weights and Forces
  3. 3-D Biomechanical Model for Low Back
  4. Physical Fatigue
  5. Revised NIOSH Guide for Manual Lifting
  6. Postural Stress, Push/Pull, and more
• Real world applications
• Workshop on job analysis methods**

Several case studies will be examined during the course to help attendees determine which analysis method to use to analyze certain types of jobs.
Part I concludes with a workshop**, where attendees will break into small groups so they can practice the use of the ergonomics methods for job analysis, under professional supervision, ensuring that each attendee leaves the course able to begin application of their acquired knowledge and skill.

Accreditation:
The University of Wisconsin has awarded this course 3.1 Continuing Education unit (CEU’s).

Part II - Upper Extremity:
Attendees will learn:
• Overview of upper extremity disorders
• Job analysis methods for repetitive motion disorders
• What method to use, when to use, how to interpret results
  1. ACGIH TLV
  2. State of Washington Checklist
  3. The Strain Index
• Case Studies and Supporting Evidence
• Guidelines for preventing repetitive motion injuries
• Office ergonomics (VDTs)
• Work station design

Emphasis in Part II is placed on creating and modifying job environments such that injuries may be avoided.
Several case studies and videotapes will be examined during the course to help attendees determine which analysis method is used to analyze certain types of jobs, as well as to witness how to develop and proceed with an ergonomic investigation within a company.

Course Location & Hotel Accommodations:
Location:
The University of Wisconsin has special room rates* with several hotels in the Milwaukee area. For a hotel listing, please contact Cyndi Mattson at cyndim@uwm.edu, 414-229-5172 or visit our hotel listings web page at http://ergonomics.uwm.edu
*Special rates will be held until May 1st.
**Course Overview:**
The Applied Ergonomics course examines issues related to the upper extremity and the lower back in greater detail than available from an introductory or short course. The curriculum emphasizes the acquisition of skill for evaluating the physical stresses of jobs, as well as the presentation of current knowledge for the prevention of work related musculoskeletal disorders.

Basic ergonomics knowledge is useful but is not required. Past attendees include:
- Ergonomists
- Nurses
- Physical and occupational therapists
- Safety professionals
- Occupational physicians
- Industrial hygienists
- Individuals responsible for health and safety
- Individuals preparing for the AEP or CPE

**Course Objectives & Benefits:**
Learn contemporary methods of job description and analyses, including the use of a computerized Biomechanical Model, Revised NIOSH Guide Lifting Equation, maximum acceptable weights and forces, the Strain Index and other job analysis methods available to estimate the demands of work tasks on the upper extremity and low back.

- Learn to apply different job analysis methods to different situations, such as hazard assessment, job modification and prospective design.
- Get hands on experience with job analysis methods through a workshop.
- Increase awareness and understanding of scientific knowledge and current theories about low back pain and upper extremity disorders.
- Learn contemporary concepts about ergonomics programs.

The ultimate goal of the course is to have participants able to identify problem jobs and develop practical solutions that may be easily and effectively implemented.

**Course Instructors:**
- Arun Garg, PhD, CPE Industrial & Manufacturing Engineering, University of Wisconsin - Milwaukee
- Naira Campbell-Kyureghyan, PhD Industrial & Manufacturing Engineering, University of Wisconsin - Milwaukee
- Kurt Beschorner, PhD Industrial & Manufacturing Engineering, University of Wisconsin - Milwaukee
- Phyllis King, PhD, Occupational Therapy, University of Wisconsin - Milwaukee
- Jay M Kapellusch, MS Occupational Therapy, University of Wisconsin - Milwaukee
- Karen N Cooper, MS, CPE Industrial & Manufacturing Engineering, University of Wisconsin - Milwaukee
- Jim Foster, MD, Occupational Medicine, Infinity HealthCare

**From Past Students:**
"The course is outstanding!" - J. Foster, MD
"Finally a comprehensive course that has practical application backed by scientific documentation. I am very excited to apply this information to my consulting. I appreciated the input from experts working in the real world." - Gina Scheuer, OTR

**Registration Form**
Mail a copy of this form and registration fee, by credit card or by check made payable to the University of Wisconsin – Milwaukee, Attn: Cyndi Mattson EMS 503, University of Wisconsin – Milwaukee, PO Box 784, Milwaukee, Wisconsin 53201

15% administrative fee applies for cancelations. No refunds given 1 week prior to the course dates.

**Check one:**

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<th>Dates</th>
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<tr>
<td>Part I only</td>
<td>June 14-16</td>
<td>$1,295</td>
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