

# DoD Ergonomics Working Group NEWS



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## Advanced Ergonomics Course

The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) has developed a 2-day Advanced Ergonomics Course designed to enhance installation ergonomics committees' expertise in ergonomics. The course:

- Provides all of the background and materials necessary to conduct and maintain an installation ergonomics program.
- Is designed to be beneficial to installations that already have an established ergonomics program but are looking to sharpen their skills as well as installations that need help jump-starting an ergonomics program that is either just getting started or is looking for guidance as to the next step in the injury reduction process.

### DAY 1

**Morning** - Lectures get everyone in the class up to speed on ergonomics. It is a review of the basic material associated with ergonomics as well as a review of the most prevalent ergonomics issues facing both military and civilian workers.

**Afternoon** - Students learn about the ergonomic issues facing their particular installation, beginning with a presentation from the Installation Ergonomics Officer on the current status of their installation ergonomics program. A review of the policy memorandums follow, with emphasis on the installation's policy status. If a policy does not currently exist, the class will draft the document. If the installation's policies are in order, this time will be used to review other ergonomic topics such as workplace design, lifting assessment tools, etc. The afternoon concludes with a review of the installation's accident logs, including OSHA, military injury, and site-specific injury data. This data analysis will be used to target sites for the field surveys conducted on Day 2.

### DAY 2

**Morning** - Participants prepare for actual field surveys. Videotaping techniques and survey information are reviewed; survey skills are developed through the analysis of videotaped case studies and ergonomic solutions are identified. Advanced task analysis techniques and advanced technologies are also introduced.

**Afternoon** - Participants perform actual field surveys. These sites for the surveys will be based on the injury data review and prioritization that was completed the previous day. The class members will be expected to use the advanced task analysis techniques as well as the advanced technologies that were introduced earlier in the day. The course culminates in the students providing presentations of their field surveys and recommendations to the instructors and Installation Ergonomics Committee.

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## Advanced Ergonomics Course Schedule

Time	Schedule - Day I
0800	<p><b>Introduction to Ergonomics Review</b></p> <p>Overview of cumulative trauma disorders; definition of ergonomics; ergonomic risk factors; current regulatory and industry-wide trends, concerns, issues; natural selection concept; the complete program picture: ergonomics/health promotion/health care management; and ergonomic red flags</p>
0900	<p><b>Musculoskeletal Disease Review</b></p> <p>Defining cumulative trauma disorders, personal and job risk factors, types of injuries, prevention and control of carpal tunnel syndrome and back injuries, and troubleshooting</p>
1000	<p><b>Materials Handling Review</b></p> <p>Overview of back anatomy, risks involved in lifting and manual materials handling, lift task variables, ergonomic solutions: manual materials handling principles and examples, ergonomic solutions: lifting task principles and examples, proper body mechanics, and use of back belts</p>
1100	<p><b>Installation Ergonomics Officer Presentation</b></p> <p>Management issues: readiness, productivity, and operating costs; supervisor/worker issues: productivity, manpower utilization, personal health, work area control; justifications for ergonomic programs including success stories, financial analyses: cost-benefit analysis and payback, marketing principles and ideas - case studies, and how to present to the Commander</p>
1200	Lunch Break
1300	<p><b>Office Review</b></p> <p>Cumulative trauma disorders in the office; risk factors present in the office; general anthropometric concepts; analysis of and solutions for each office component: the desk, chair, footrest, monitor, keyboard, and mouse; chair feature analysis; vision problems: lighting, glare, glasses and bifocals, and current concerns in the office environment</p>
1400	<p><b>Documentation Review/Selected Topics</b></p> <p>Step-by-step process of developing an ergonomics program: selection of committee members, passive and active surveillance, prioritization of worksites, detailed worksite analyses, hazard prevention and control, health care management, education and training, and program assessment</p>
1500-1600	<p><b>Injury Prioritization</b></p> <p>OSHA Log review, military injury review, and how to identify high priority tasks</p>

## Advanced Ergonomics Course Schedule

Time	Schedule - Day 2
0800	<p><b>Task Analysis Review/Intro to Site Survey Reports</b>            Quantifying and qualifying a task; general problem areas in tasks; levels of task analyses; identification of task components; in-depth component analysis: what to measure and how to measure; hands-on practice analyzing a task; using task analysis information to compare to normative data (anthropometric tables, lift capacities), identify, prioritize, and resolve problem task components, and for light duty assignments</p>
0900	<p><b>Advanced Task Analysis OWAS/RULA</b>            OWAS method for the evaluation of postural load during work and RULA, Rapid Upper Limb Assessment</p>
1000	<p><b>Advanced Technologies</b>            WE@CT, ErgoFix, POPM Web site and DOEHRS</p>
1100	<p><b>Site Evaluation and Site Evaluation Report</b>            Site evaluation, Web research and advanced technologies usage            This 4-hour session is the capstone for the course. Participants will perform a detailed task analysis of a site that was chosen via the injury prioritization module. The site will be visited, evaluated, and a detailed report will be produced.</p>
1200	Lunch break
1300-1500	<b>Site Evaluation Report Continued</b>
1500-1600	<p><b>Site Evaluation Presentation/Critique</b>            Presentations skills, follow-up protocol</p>



**Contact the USACHPPM Ergonomics Program  
 at 410-436-3928 for more information about  
 the Advanced Ergonomics Course.**