



Industrial Ergonomic Evaluator Certification Course – On Demand

Jim Mecham, MSIE, OTR/L, CPE

Day 1

Time	Subject	Content	Method of Instruction
14 minutes	Introduction	Overview of course and introduction to course instructor	Lecture, Power Point
48 minutes	Introduction to Ergonomics	Definitions of ergonomics, history, OSHA standards, present research, and establishing a good ergonomic foundation	Lecture, Power Point
55 minutes	Developing an Ergonomics Program	Learn how to implement an OSHA approved injury prevention program, market/sell your services, form a successful ergonomics committee, implement participatory ergonomics, and what data is needed to demonstrate success	Lecture, Power Point, Course Material
18 minutes	Anthropometrics	Discuss the use of anthropometrics, anthropometric approaches and design principles	Lecture, Power Point
26 minutes	Ergonomic Analysis Overview	Understand the basic concepts of a job site analysis, job demands analysis, ergonomic analysis, and look at various ergonomic assessment tools	Lecture, Power Point
39 minutes	Identifying Ergonomic Risk Factors	Identify the most common ergonomic risk factors: Physical, Environmental, Psycho-Physical and Psycho-Social	Lecture, Power Point, Course Material
18 minutes	Ergonomic Controls	Overview of engineering controls, administrative controls, work practice, training, and medical management	Lecture, Power Point
29 minutes	Job Modification	Making job modification recommendations and ergonomic cost benefit analysis	Lecture, Power Point
42 minutes	Job Demands Analysis and Job Safety Analysis	Perform a job demands analysis and job safety analysis through video	Lecture, Power Point, Course Material, Video
2 minutes	Certification Quiz	Complete a 20 question multiple choice quiz as the first step towards the Certified Industrial Ergonomic Evaluator Certification	Lecture



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Day 2

Time	Subject	Content	Method of Instruction
86 minutes	Low Back Ergonomics	Discuss low back pain, biomechanical basis for injury, epidemiological studies, risk factors with back belts, and preventative approaches	Lecture, Power Point
16 minutes	Manual Material Handling Controls	Overview of controls and recommendations for improving manual material handling risks	Lecture, Power Point
25 minutes	Manual Material Handling Work Practice Control	Does lifting technique really matter? Discuss research that shows lifting technique doesn't help and engineering controls provide the most benefit	Lecture, Power Point
14 minutes	Push/Pull/Carry Ergonomics	Discuss risk factors and controls associated with push, pull, and carry ergonomics	Lecture, Power Point
15 minutes	Sitting and Standing Ergonomics	Discuss risk factors and controls associated with sitting and standing ergonomics	Lecture, Power Point
7 minutes	Lower Extremity Ergonomics	Discuss risk factors and controls associated with lower extremity ergonomics	Lecture, Power Point
8 minutes	Ergonomic Analysis Tools and Short OSHA Checklist	Learn how to use the Short OSHA Checklist	Lecture, Power Point, Course Material
32 minutes	Rapid Entire Body Assessment	Discuss and practice using the Rapid Entire Body Assessment (REBA)	Lecture, Power Point, Course Material, Video
58 minutes	Liberty Mutual Guidelines and ACGIH Lifting TLVs	Discuss and practice using the Liberty Mutual Guidelines and ACGIH Lifting TLVs	Lecture, Power Point, Course Material
48 minutes	NIOSH Lifting Guidelines	Discuss and practice using the NIOSH Lifting Guidelines	Lecture, Power Point, Course Material, Video



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Day 3

Time	Subject	Content	Method of Instruction
90 minutes	Upper Extremity Ergonomics	Discuss distal upper extremity and shoulder ergonomics risk factors epidemiological studies, controls, and job modifications	Lecture, Power Point
18 minutes	Washington State Checklist	Discuss and learn how to use the Washington State Checklist	Lecture, Power Point, Course Material, Video
19 minutes	Long OSHA Checklist	Discuss and learn how to use the Long OSHA Checklist	Lecture, Power Point, Course Material, Video
21 minutes	Rapid Upper Limb Assessment	Discuss and learn how to use the Rapid Upper Limb Assessment (RULA)	Lecture, Power Point, Course Material, Video
29 minutes	Nestle Redesign	Watch as students redesign the Nestle Feeder Packer line	Lecture, Video
28 minutes	ACGIH TLV for Hand Activity	Discuss and learn how to use the ACGIH TLV for Hand Activity	Lecture, Power Point, Course Material, Video
42 minutes	Strain Index Distal Upper Extremity Tool	Discuss and learn how to use the Strain Index Distal Upper Extremity Tool	Lecture, Power Point, Course Material, Video
4 minutes	Practice RULA/ACGIH TLV for Hand Activity/ Strain Index	Practice the RULA, ACGIH TLV for Hand Activity, and Strain Index before the practicum	Lecture, Video
3 minutes	Upper Extremity Ergo Certification Practicum	Perform an ergonomic evaluation on a job with upper extremity ergonomic risk factors using the Strain Index and one other ergonomic evaluation tool of your choice to work towards CIEE Certification	Lecture
2 minutes	Certification and Wrap Up	Wrap up the course, take quiz, complete course feedback form, and schedule a time to speak with the course instructor	Lecture