



Satuan Acara Pengajaran

PHK2602156 - Ergonomik

Pengajar

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Minggu 1

Materi Pendahuluan ergonomi
 ? Konsep System ? Human - Interaction
 ? Definisi
 ? Sejarah perkembangan
 ? Ruang lingkup
 ? Manfaat ergonomi
 Penjelasan silabus

Media LCD Projector, Laptop, Whiteboard

Referensi 1. Bridger, R., Introduction to Ergonomics, CRC Press Book, 2008
 2. Grandjean, E. & Kroemer, K., Fitting The Task to the Man: A Textbook
 of Occupational Ergonomics, Taylor&Francis, 1997
 3. Lehto, M. & Buck, J., Human Factor and Ergonomics for Engineers,
 Laurence Erlbaum Associates, 2008

Aktivitas Kuliah interaktif, diskusi

Minggu 2

Materi Human diversity
? Jenis kelamin
? Etnik
? Sekuler Trend
? Umur
? Pertumbuhan dan perkembangan
? Kelas social dan pekerjaan

Media LCD Projector, Laptop, Whiteboard

Referensi Pheasant, S. & Haslegrave, C. M., Bodyspace: Anthropometry, Ergonomics, and the Design of Work, CRC Press Book, 2005

Aktivitas Kuliah interaktif, diskusi

Minggu 3

Materi Fisiologi kerja
? Anatomi fisiologi
? Body mechanics
? Respiratory
? Circulatory
? Metabolism

Media LCD Projector, Laptop, Whiteboard

Referensi Toomingas, A., Mathiassen, S., Tornqvist, E., Occupational Physiology, CRC Press, 2012
Wickens, C., Lee, J., Liu, Y., & Gordon-Becker, S., An Introduction to Human Factors Engineering, 2004

Aktivitas Kuliah interaktif, diskusi, QBL

Minggu 4

Materi Antropometri
? Prinsip
? Metoda
? Aplikasi

Media LCD Projector, Laptop, Whiteboard, Antropometer

Referensi Pheasant, S. & Haslegrave, C. M., Bodyspace: Anthropometry, Ergonomics, and the Design of Work, CRC Press Book, 2005

Aktivitas Kuliah interaktif, diskusi, praktek pengukuran

Minggu 5

Materi Human sensory
 ? Visual sensory
 ? Perception of sound
 ? Position and motion sensing
 ? Other senses

Media LCD Projector, Laptop, Whiteboard

Referensi Bridger, R., Introduction to Ergonomics, CRC Press Book, 2008
 Grandjean, E. & Kroemer, K., Fitting The Task to the Man: A Textbook of Occupational Ergonomics, Taylor&Francis, 1997

Aktivitas Kuliah interaktif, diskusi

Minggu 6

Materi Cognition
 ? Information processing models
 ? Attention
 ? Perception
 ? Memory

Media LCD Projector, Laptop, Whiteboard

Referensi Wickens, C., Lee, J., Liu, Y., & Gordon-Becker, S., An Introduction to Human Factors Engineering, 2004

Aktivitas Kuliah interaktif, diskusi

Minggu 7

Materi Faktor risiko ergonomi dan dampaknya
 ? Postur, frekuensi, durasi
 ? Manual handling
 ? Work stress
 ? Musculoskeletal problems
 ? Fatigue
 ? Slips, trips, fall

Media LCD Projector, Laptop, Chekclist

Referensi Bhattacharya, A. & McGlothlin, J., Occupational Ergonomics, CRC Press, 2012
Wislon, J. & Corlett, N., Evaluation of Human Work, CRC Press Book, 2005

Aktivitas Kuliah interaktif, diskusi, CBL

Minggu 8

Materi Ujian Tengah Semester

Media

Referensi

Aktivitas

Minggu 9

Materi Ergonomics assessments for static work
? Overview of ergonomics assessments
? RULA
? REBA

Media LCD Projector, Laptop, Whiteboard, Checklist form

Referensi Wislon, J. & Corlett, N., Evaluation of Human Work, CRC Press Book, 2005
Stanton, N., & Young, M., A Guide to Methodology in Ergonomics, Taylor & Francis, 1999
Mcatamney, L. & Nigel Corlett, E. 1993. Rula: A Survey Method For The Investigation Of Work-Related Upper Limb Disorders. Applied Ergonomics, 24, 91-99.
Hignett, S. & Mcatamney, L. 2000. Rapid Entire Body Assessment (REBA). Applied Ergonomics, 31, 201-205

Aktivitas Kuliah interaktif, diskusi, CBL

Minggu 10

Materi Ergonomics assessments for manual handling work
? QEC
? NIOSH Lifting
? WISHA

Media LCD Projector, Laptop, Whiteboard, Assessment form

Referensi David, G., Woods, V., Li, G. Y. & Buckle, P. 2008. The Development Of The Quick Exposure Check (QEC) For Assessing Exposure To Risk Factors For Work-Related Musculoskeletal Disorders. Applied Ergonomics, 39, 57-69.
Thomas, R. W., Putz-Anderson, V. & Garg, A. 1994. Applications Manual For The Revised Niosh Lifting Equation. Cincinnati: National Institute For Occupational Safety And Health.

Aktivitas Kuliah interaktif, Latihan assessment

Minggu 11

Materi Environmental Ergonomics
? Lighting
? Temperature

Media LCD Projector, Laptop, Whiteboard

Referensi Tochihara, Y. & Ohnaka, T., Environmental Ergonomics The Ergonomics of Human Comfort, Health and Performance in the Thermal Environment, Elsevier Ergonomic Book Series, 2005

Aktivitas Kuliah interaktif, diskusi

Minggu 12

Materi Design for static work and manual handling task
? Design for standing workers
? Design for seated workers
? Workarea design
? Design of manual handling task

Media LCD Projector, Laptop, Whiteboard

Referensi Wickens, C., Lee, J., Liu, Y., & Gordon-Becker, S., An Introduction to Human Factors Engineering, 2004

Alexander, D. & Rouborn, R., Applied Ergonomics, Taylor & Francis, 2001

Aktivitas Kuliah interaktif, Melakukan perancangan

Minggu 13

Materi Special issues: Implementasi ergonomi di industri

Media LCD Projector, Laptop, Whiteboard

Referensi Alexander, D. & Rabourn, R., Applied Ergonomics, Taylor & Francis, 2001

Karwowski, W. & Marras, W., Occupational Ergonomics: Engineering and Administrative Control, CRC Press Book, 2005

Hendrick, H. W And Kleiner, B., Macroergonomics: Theory, Methods, And Applications, Lawrence Erlbaum Associates, 2002

Aktivitas Kuliah interaktif

Minggu 14

Materi Special issues: participatory ergonomics, psikosial, night work, shift work

Media LCD Projector, Laptop, Whiteboard

Referensi Alexander, D. & Rabourn, R., Applied Ergonomics, Taylor & Francis, 2001

Karwowski, W. & Marras, W., Occupational Ergonomics: Engineering and Administrative Control, CRC Press Book, 2005

Hendrick, H. W And Kleiner, B., Macroergonomics: Theory, Methods, And Applications, Lawrence Erlbaum Associates, 2002

Aktivitas Kuliah interaktif

Minggu 15

Materi Special issues: Macroergonomics

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Referensi Alexander, D. & Rabourn, R., Applied Ergonomics, Taylor & Francis, 2001

Karwowski, W. & Marras, W., Occupational Ergonomics: Engineering and Administrative Control, CRC Press Book, 2005

Hendrick, H. W And Kleiner, B., Macroergonomics: Theory, Methods, And Applications, Lawrence Erlbaum Associates, 2002

Aktivitas Kuliah interaktif

Minggu 16

Materi Ujian Akhir Semester

Media

Referensi

Aktivitas
