

RENCANA PROGRAM DAN KEGIATAN PEMBELAJARAN SEMESTER (RPKPS)

Kode Mata Kuliah : TIN 4103
Mata Kuliah : ERGONOMI
Semester : 4 (EMPAT)
Beban : 2 SKS
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TUJUAN INSTRUKSIONAL:

Setelah mengikuti mata kuliah Ergonomi diharapkan mahasiswa mampu :

1. Memberikan pemahaman tentang konsep-konsep dasar perancangan sistem kerja dan ergonomi.
2. Membentuk kemampuan merancang stasiun kerja dan lingkungan kerja sesuai dengan kaidah-kaidah perancangan sistem kerja dan ergonomi.
3. Memberikan penalaran menggunakan prinsip-prinsip ergonomi untuk mengevaluasi rancangan suatu produk.

PUSTAKA YANG DIGUNAKAN:

1. Anshel, J., ***Visual Ergonomics Handbook***, Lewis Pub, 2005.
2. Granjean, E. ***Fitting The Task To The Main: An Ergonomic Approach***. Taylor dan Francis Ltd., 1982.
3. Kaplan, M. ***Cultural Ergonomics: A World Perspective***, CRC Press
4. Karwowski, W. dan Stanton, N.A., ***Human Factors and Ergonomics in Consumer Product Design: Methods and Techniques***, CRC Press
5. Konz, S.A. dan Johnson, S.L., ***Work Design: Occupational Ergonomics***, Holcomb Hathaway, 2008
6. McCormick, E.J. dan Sanders, E., ***Human Factors in Engineering and Design***, McGraw-Hill Book Co., 1992.
7. Salvendy, G. ***Handbook of Human Factors and Ergonomics***, John Wiley dan Sons, 2006
8. Sanders, M.J. ***Ergonomics and the Management of Musculoskeletal Disorders***, Butterworth-Heinemann, 2003

| Pertemuan ke- | Pokok Bahasan | Sub Pokok Bahasan | Jenis Kegiatan Pembelajaran | Taksonomi | | | | | |
|---------------|--------------------------|---|-----------------------------|-----------|---|---|---|---|---|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | A glance of ergonomics | <ul style="list-style-type: none"> • Objectives • References • Definition • Ergo-System | Diskusi | | | | | | |
| 2 | Human Sensory System | <ul style="list-style-type: none"> • Visual Sensory System • Auditory Sensory System • Tactile and Vestibular Sensory System | | | | | | | |
| 3 | Cognition Process | <ul style="list-style-type: none"> • Human Information Processing Model • Sensory Register and Perception • Working Memory • Long-Term Memory | | | | | | | |
| 4 | Anthropometry | <ul style="list-style-type: none"> • Engineering Anthropometry • Anthropometric Data • Application | | | | | | | |
| 5 | Biomechanics | <ul style="list-style-type: none"> • Occupational Biomechanics • The Musculoskeletal System • Biomechanical Model • Musculoskeletal Disorder | | | | | | | |
| 6 | Quiz 1 | | | | | | | | |
| 7 | Group Presentation | | | | | | | | |
| 8 | Bad Ergonomics Impact | | | | | | | | |
| 9 | Manual Material Handling | <ul style="list-style-type: none"> • Manual Material Handling System • The Revised NIOSH Lifting Equation | | | | | | | |

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|---------------|--------------------------------|---|-----------------------------|-----------|---|---|---|---|---|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 |
| 10 | Work Physiology | <ul style="list-style-type: none"> • Work Physiology • Resources of Energy • Classification of Work • Rest Time Requirement | | | | | | | |
| 11 | Circadian Rhythm and Shiftwork | <ul style="list-style-type: none"> • Circadian Rhythm • Sleep Loss • Shiftwork • Hazards of Night Shift | | | | | | | |
| 12 | Display and Control Design | <ul style="list-style-type: none"> • Human – Machine System • Display Design • Control Design | | | | | | | |
| 13 | Human Error and Safety | <ul style="list-style-type: none"> • Human Error • Basic Safety and Accidents | | | | | | | |
| 14 | Quiz 2 | | | | | | | | |
| 15 | Group Presentation | | | | | | | | |
| 16 | Macro Ergonomics | | | | | | | | |

Taksonomi berisi:

- 1 : remember (mengingat)
- 2 : understand (mengerti)
- 3 : apply (menggunakan)
- 4 : analyze (menganalisa)
- 5 : evaluate (mengevaluasi)
- 6 : create (menciptakan)