Human Factor Engineering

Lecturer: *Wen-Ching Su* Tel: 271-7508 Office Hours: Wed. 10:00 ~ 12:00 Lecture Room: A0124 Credit:2 Textbook: Edited textbook by *Wen-Ching Su* E-mail: <u>wencsu@mail.ncyu.edu.tw</u> Office: 2nd Floor of Forest Building Course Hours:2

Evaluation: 20% for each test; 30% for Mid examination; 10% for quiz and attendance; 40% for final

Content

- Chapter 1—Introduction to human factor engineering (*definition, interior, effects, methods and uses*)
- Chapter 2—Basic of human factor engineering (posture, movement, action of any kind, characteristics of action, feeling, consciousness and cognition)
- Chapter 3—Anthropometry (*anthropometric principles—anatomy*, *body mechanics, measure of technique, applications*)

Mid Examination(1 hr): covering chapter 1, 2, 3

- Chapter 4—The applications of human factor engineering (*chair, bed, table; furniture dimension and human factor engineering; older person and human factor engineering*)
- Chapter 5—Human factor engineering and interior environment (*normal interior accidents, disasters; heat, cold and the design of the physical environment; hearing, sound noise and vibration; vision, light and lighting*)
- Chapter 6—Analysis of human factor engineering (the design of chair, table and bed; displays and controls environment; the design of special work space)

Final Examination(1 hr): covering Chapter 4, 5, 6

Reference: R.S. Bridger, "Introduction To Ergonomics", Taylor& Francis published. Final paper: *Measurement of the human body—measured 5 persons (practical) Include:* standing eye height, standing elbow height, standing finger tip height, sitting height, sitting elbow height, popliteal height, buttock-popliteal length, hip width, et al.