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| **Course Code**  **Course Title**  **No. of Credits**  **Pre-requisites**  **Compulsory/Optional** | ME502  Ergonomics  2  -  Optional | | | | | |
| **Aim(s):**  To enable participants to appreciate the role of Human Factors in Engineering applications and day-to-day situations | | | | | | |
| **Intended Learning Outcomes:**  On successful completion of the course, the students should be able to;  ILO1: identify aspects of job tasks that may increase a worker's risk of developing MSDs, using ergonomics assessment tools including checklists  ILO2: recognize the signs and symptoms of muscular skeletal disorders(MSDs),  ILO3: participate in the development of strategies to control or prevent MSDs  ILO4: formulate implementation plans  ILO5: illustrate the value of such plans | | | | | | |
| **Topics** | | | **Time Allocation/Hours** | | | |
| **L** | **T** | **P** | **A** |
| **Introduction:** Areas of ergonomics; Stakeholders; Productivity & Benefits | | | 5 |  |  |  |
| **Ergonomic background & theories:** Human Body; Anthropometry; Physiological aspects; Occupational biomechanics; Psychological aspects; Social psychology; Safety & Health | | | 14 |  |  |  |
| **Ergonomic interventions:** Ergonomic evaluation and investigation  Norms and standards; Checklists and other techniques | | | 05 |  |  | 06 |
| **Total hours** | | | 24 |  |  | 06 |
| **Recommended Texts:**   1. Elements of ergonomics programs: a primer based on workplace evaluations of musculoskeletal disorders by Cohen, A. L. 2. Ergonomics for beginners: a quick reference guide by Dulaney, E & Weerdmuster, B.A.   3.  Ergonomics at work: human factors in design & development by Oborne, D. | | | | | | |
| **Assessment** | | **Percentage Mark** | | | | |
| **In-course**  Tutorials/Assignments/Quizzes/Practicals  Mid Semester Examination | | 20  30 | | | | |
| **End-semester:** Written examination | | 50 | | | | |

*Note: L – Lectures, T – Tutorials, P – Practicals, A - Assignments*