



**JORDAN UNIVERSITY OF SCIENCE AND
TECHNOLOGY
INDUSTRIAL ENGINEERING DEPARTMENT**



Course Number and Name	IE453 Human Factors Engineering
Course Description	The course covers basics of ergonomics with a focus on anthropometric measurements, man-machine interaction, ergonomic design of workspace and hand tools, occupational hazards, and design of work environment.
Credits and contact hours	3 Credit hours; 3 hours of lectures
Pre- or Co-requisites	IE345 Work Measurement and Analysis
Required/ Elective	Required

Text Book(s)	R.S. Bridger, Introduction to Ergonomics, CRC, latest editions
Software tools	
References	<ul style="list-style-type: none"> • Any book in work design, occupational safety, human factors and ergonomics. • Human factors and Ergonomics Society: http://www.hfes.org/web/Default.aspx • Ergo World: http://www.interface-analysis.com/ergoworld/ • OSHA: http://www.osha.gov/ • NIOSH: http://www.cdc.gov/niosh/homepage.html

Course Objectives	<p>Upon completion of this course, the students will</p> <ul style="list-style-type: none"> • be familiar with the role of a human factors analyst in the organization • be able to use systematic approaches for identifying, analyzing and solving ergonomics related problems • work in a team on real life projects and deliver short reports of their findings • be able to seek knowledge, stay updated, and pursue further learning and training in related fields
Measured Outcomes	3f, 3h and 3l

Topics	Chapters in Text	Evaluation (%)	
Introduction to human factors	Chapters 1	Class Work	10
Risk factors associated with the worker	Chapters 2 - 4	First Exam	25
Risk factors associated with the task	Chapters 5 - 7	Second Exam	30
Risk factors associated with the environment	Chapters 8 - 11	Final Exam	40