

Course Title	Human factors				
Course Code	OSH615				
Course Type	Compulsory				
Level	Master (2nd Cycle)				
Year / Semester	1st year/ 2nd semester				
Teacher's Name	TBA				
ECTS	10	Lectures / week	3 hours / 14 weeks	Laboratories / week	N/A
Course Purpose and Objectives	<p>OSH 615 aims to equip students with theoretical and practical knowledge on the important aspect of human and psychological factors in health and safety. Practical methods in the form of ergonomic design for all sectors will be highlighted and successful design methods will be applied. Psychological factors and their impact as well as the inclusion of health and safety in the design of working procedures will be analysed. Quantitative and qualitative methods of including human behavior in the successful design of safety systems among one of the aims of the course.</p>				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <p>Enable students to identify aspects of job tasks that may increase a worker's risk of developing MSDs, recognize the signs and symptoms of the disorders, and participate in the development of strategies to control or prevent them</p> <p>Understand the impact of physiological stress on one's well-being.</p> <p>Identify risks that lead to musculoskeletal pain</p> <p>Relate limitations of human performance to various environmental and interpersonal conditions</p> <p>Apply knowledge of human task performance limitations in the occupational environment with a view to improving safety</p> <p>Apply the basic principles of occupational hygiene, including measurement, control and evaluation</p> <p>Identification of psychosocial hazards and measures to manage them</p> <p>Learn how to apply the theory, principles, data and methods to design healthy, safe and sustainable working environments.</p> <p>Learn how to apply work systems for human well-being and overall system performance</p> <p>Identify new emerging risks such as ageing</p>				
Prerequisites	None	Required	None		
Course Content	<p>Theoretical and practical knowledge will be offered.</p> <p>Indicative focus areas are:</p>				

	<p>Risk cognition and relevance to decision-making and human behaviour in Health and Safety</p> <p>Human factors relevant to H&S and accident causation e.g. attention mechanism, sensory perception, risk cognition including 'hot' and 'cold' cognitions, habituation, expectancy, motivation, stress, learning etc.</p> <p>Group human factors such as safety culture, individual risk decision making and the importance of leadership</p> <p>Interdependence and mutual influence of group human factors and individual human factors such as risk cognition and motivation</p> <p>Risk Homeostasis theory and its application</p> <p>Application of 'person-work fit' principles to the design of organizational structures, business processes, work organization and performance measurement so as to reduce potential stress and mental health problems.</p> <p>Psychology, anatomy, physiology, biomechanics and anthropometry in ergonomics</p> <p>Application of individual ergonomic design principles to the 'person-task interface' in a variety of workplaces and types of work e.g. use of computers, plant control rooms, airline flight decks</p> <p>Application of Key Indicator Method (KIM)</p> <p>Application of well-being tools such as work ability index</p>
Teaching Methodology	Face-to-Face
Bibliography	<p>Required Reading(s):</p> <p>Sharon Clarke, Tahira M. Probst, Frank W. Guldenmund, Jonathan Passmore , The Wiley Blackwell Handbook of the Psychology of Occupational Safety and Workplace Health (Wiley-Blackwell Handbooks in Organizational Psychology) Latest Edition, ISBN-10: 9781118978986</p> <p>Gavriel Salvendy, Handbook of Human Factors and Ergonomics Latest Edition, Wiley ISBN-10: 0470528389</p> <p>Recommended Reading(s) :</p> <p>Applied Ergonomics, Elsevier ISSN: 0003-6870</p>

Assessment	<table border="1"><tr><td data-bbox="475 248 924 304">Examinations</td><td data-bbox="924 248 1163 304">60%</td></tr><tr><td data-bbox="475 304 924 394">Class Participation and Attendance</td><td data-bbox="924 304 1163 394">10%</td></tr><tr><td data-bbox="475 394 924 450">Project</td><td data-bbox="924 394 1163 450">30%</td></tr><tr><td data-bbox="475 450 924 506"></td><td data-bbox="924 450 1163 506">100%</td></tr></table>	Examinations	60%	Class Participation and Attendance	10%	Project	30%		100%
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Language	English								