

LABORATORY MANAGEMENT AND SAFETY

Course Title	Laboratory Management and Safety						
Course Code	EBS 366	Course Level	300	Credit value	2	Semester	1
Pre-requisite							
Course Delivery Modes	Face-to-face <input checked="" type="checkbox"/>	Practical Activity <input checked="" type="checkbox"/>	Work-Based Learning <input type="checkbox"/>	Seminars <input type="checkbox"/>	Independent Study <input type="checkbox"/>	e-learning opportunities <input checked="" type="checkbox"/>	Practicum <input type="checkbox"/>
Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)	The objectives of this course are to aid develop a firm understanding of the possibility that a prolonged use of daily gadgets and ICT tools can have some implications on one's health. Some of these health concerns to a user of computing tools are issues related to vision, hearing and musculoskeletal problems that can arise from our extensive use of daily ICT tools. Ergonomics (which deals with the science and study of designing or arranging workplaces, products and systems so that they fit the people who use them and reduce health related problems) will be discussed. (NTS 2b, 2c, 3a, 3c, 3e-3m, 3p; NTECF Pillar 1)						
Course Learning	Outcomes					Indicators	

<p>Outcomes: including INDICATORS for Each learning outcome</p>	<ol style="list-style-type: none"> 1. describe hazards NTS 2b, 2c, 3a, 3c, 3e-3m 2. identify ICT tools and their potential health hazards NTECF, NTS, 3i, & 3j 3. define vision problems associated with prolonged ICT tools' use NTECF, NTS, 3i, & 3j 4. define hearing problems associated with prolonged ICT tools' use NTS 2a, 2b, 2c, 2e, 2f, 3e-3o 5. identify some common examples of conditions that affect our vision and hearing as a result of our prolonged use ICT tools NTS 2b, 2c, 3a, 3c, 3e-3m, 3p; NTECF Pillar 1 precautionary measures to control vision, hearing and musculoskeletal problems from ICT tools NTS 2b, 2c, 3a, 3c, 3e-3m 	<ol style="list-style-type: none"> 1. list one physical or psychological hazard 2. list one vision related problem 3. list on hearing related problem 4. list at least two ergonomics feature of an ICT lab setup
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	<ol style="list-style-type: none"> 6. Explain the concepts of ergonomics and computer ergonomics NTECF, NTS, 3d, & 3j 7. Identify common computer ergonomic devices based on features NTECF, NTS, 3d, & 3j 			
<p>Course Content</p>	<p>Units</p>	<p>Topics</p>	<p>Sub-topics (if any):</p>	<ul style="list-style-type: none"> • Teaching and learning activities to active learning outcomes
	<p>1</p>	<p>ICT tools and their potential health hazards</p>		<ul style="list-style-type: none"> • Give a presentation on the various ICT tools and the potential hazards they pose.

	2	Vision and hearing problems associated with prolonged ICT tools' use		<ul style="list-style-type: none"> Discuss some of the problems associated with ICT.
	3	Concepts of ergonomics and computer ergonomics		<ul style="list-style-type: none"> Discuss ergonomics and its importance in ensuring safety and efficiency at work
	4	Guidelines for healthy computing		<ul style="list-style-type: none"> Brainstorm with students some of the guidelines to ensure healthy computing
Course Assessment Components: Educative assessment of, for and as learning)	<p>A combination of formative and summative assessment including group tasks, quizzes, individual and take home assignment and examination will be used.</p> <p>Assessment weighting</p> <p>Summative Assessment 60% Formative Assessment 40% Students will be graded as follows:</p> <p>A=80-100%; B+=75-79%; B =70-74%, C+ =65-69%, C= 60-64%, D+=55-59, D=50-54, E< 50 (Fail)</p>			
Instructional Resources	Class discussion, lecture, pair/group presentations, demonstrations			
Required Text (core)	<p>Eastman, K. (1986). <i>Ergonomic Design for people at work: Volume 2</i>, John Wiley & Sons.</p> <p>Kenneth, E. H., & Herman, T. T. (2008). <i>The handbook of information and computer ethics</i>. New Jersey, NJ: John Wiley and Sons, Inc.</p>			
Additional Reading List	<p>NCTE Advice Sheet – Ergonomics, Health and Safety Advice Sheet 29 Available at</p> <p>http://www.pdsttechnologyineducation.ie/en/Technology/Advice-Sheets/Ergonomics-Health-and-Safety1.pdf</p>			