Semester:	5				
Course Code:	ME3050				
Course Name:	Occupational Health and Safety				
Credits Value:	2 (Notional hours: 100)				
Pre-requisites:	None				
Core/ Optional:	Core				
Hourly Breakdown	Lectures (hours)	Tutorials (hours)	Practical classes (hours)	Assignments (hours)	Independent Learning & Assessment (hours)
	22			16	62

Course Aim: To provide the students with an opportunity to be familiar with standard practices and the associated fundamentals in occupational health and safety so that all of them will be able to ensure the safety of the environments that come under their purview.

Intended Learning Outcomes:
On successful completion of the course, the students should be able to;

- **describe** the importance of paying attention to safety in industrial environment,
- **conduct** a risk assessment associated with industrial activities and suggest risk reduction measures,
- **describe** industrial safety related regulations in Sri Lanka,
- **describe** the components of an occupational health and safety management system.

Course Content:

- **Introduction to Industrial safety:** Introduction to industrial safety and its importance, major industrial accidents, accident investigation, learning from accidents
- **Industrial hazards, risk assessment and mitigation:** Physical, chemical, biological and ergonomic hazards in industry, risk assessment methods such as hazard and operability analysis, 'what if' analysis, risk matrix, fault tree analysis, safety improvement techniques, fire safety and emergency management, risk mitigation approaches
- **Occupational Health and Safety (OHS) Management:** ISO 45001- Occupational health and safety management system- components in ISO 45001 and their practical implementation
- **OHS Regulations:** Factory ordinance, ILO regulations and guidelines, OHS regulation implementation agencies in Sri Lanka

Teaching/ Learning Methods:

<table>
<tr><td colspan="4">Classroom lectures, and in-class exercises and assignments</td></tr>
<tr><td colspan="4">Assessment Strategy:</td></tr>
<tr><td colspan="2">Continuous Assessment
40%</td><td colspan="2">Final Assessment
60%</td></tr>
<tr><td colspan="2">Details:

Assignments/Quizzes 40%
Mid Semester Examination</td><td>Theory (%)

60%</td><td>Practical (%)</td><td>Other (%)</td></tr>
<tr><td colspan="4">Recommended Reading:
Centre for Chemical Process Safety of the American Institute of Chemical Engineers, Introduction to Process Safety for Undergraduates and Engineers
ISO 45001 Standard.</td></tr>
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