

## Subject Description Form

<b>Subject Code</b>	BSE559
<b>Subject Title</b>	Safety Management Systems and Safety Auditing
<b>Credit Value</b>	3
<b>Level</b>	5
<b>Pre-requisite/ Co-requisite/ Exclusion</b>	Nil
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• To understand the concepts of safety management system.</li> <li>• To understand the system elements of the safety management system.</li> <li>• To acquire knowledge on compliance/regulatory aspects on Safety Management System.</li> <li>• To provide a comprehensive review of safety audits, their application and the auditing processes.</li> </ul>
<b>Intended Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> <li>a. have a clear understanding of the concepts of safety management system;</li> <li>b. identify and evaluate system elements of the safety management system;</li> <li>c. acquire knowledge on compliance/regulatory aspects on Safety Management System;</li> <li>d. conduct a comprehensive review of safety audits, their application and the auditing processes.</li> </ol>
<b>Subject Synopsis/ Indicative Syllabus</b>	<p><b>Safety management system:</b> History and growth of safety &amp; health at work, development of safety programs, procedures for minimizing risk and maximizing safety and health; Hong Kong and overseas safety legislation, legal aspects applicable to the safety management system; Concepts of safety management system, policy objectives, targets, implementation and documentation; Hazard management program; Hierarchy of controls and engineering control methods.</p> <p><b>System elements of safety management system:</b> Introduction to elements of safety management systems; Implementation of the system elements; Effective emergency preparedness; Reporting workplace accidents; Investigation of accidents/incidents to prevent recurrence; Accidents/incidents statistical analysis; Contractor evaluation, selection and control strategy; Develop and run safety committee; Evaluation of job-related hazards; Safety procedures development; Safety and health awareness program; Establishing and implementing safety performance indicators for health and safety program improvement; Effectiveness of safety management system.</p> <p><b>Safety compliance standards:</b> Standardization of Safety &amp; Health Regulations and legal aspects applicable to the safety management system, practice of safety and health etc.; Emphasizes legal standardization; Overseas (USA, European and UK) and Hong Kong safety legislation, major safety and health legislation controls with an emphasis on the local Safety and Health Ordinance; Analysis of the major physical hazards and safety practices to eliminate the hazardous condition or minimize injury.</p>

	<p><b>Safety auditing:</b> An introduction to theory and practice of Safety Audits; Audit protocol and definitions; Safety auditing processes, procedures and scheduling; Safety Auditing Program, pre-audit and post-audit activities; Evaluation and reporting of audit findings; Documentation of safety audit; Introduction on using microcomputers in occupational safety and health; Instruction in techniques used for data processing, statistical analysis, interfacing with instrumentation and linking with mini- and main-frame computers.</p>																																												
<p><b>Teaching/Learning Methodology</b></p>	<ul style="list-style-type: none"> <li>• Lectures/seminars</li> <li>• Student seminars/tutorials</li> </ul>																																												
<p><b>Assessment Methods in Alignment with Intended Learning Outcomes</b></p>	<table border="1" data-bbox="459 517 1484 931"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>a.</th> <th>b.</th> <th>c.</th> <th>d.</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1. Examination</td> <td>60%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>2. Continuous assessment</td> <td>40%</td> <td>✓</td> <td></td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>100%</td> <td colspan="6"></td> </tr> </tbody> </table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Based on examination mark (60%) and continuous assessment mark (40%). The continuous assessment is made up of course work, seminar and case study.</p> <p>Tutorial Work</p> <p>Tutorial work will mainly focus on problem solving based on examination type questions and practical examples.</p>							Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a.	b.	c.	d.			1. Examination	60%	✓	✓	✓	✓			2. Continuous assessment	40%	✓		✓	✓			Total	100%						
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<p><b>Reading List and References</b></p>	<p>AS 3745-2010 Planning for Emergencies in Facilities, Standards Australia.</p> <p>AS/NZS ISO 31000:2009, Risk Management – Principles and guidelines (2009). <i>Australian/New Zealand Standard on Risk Management</i>, Australia.</p> <p>AS/NZS 4801:2001 <i>Occupational health and safety management systems – Specification with guidance for use.</i></p> <p>AS/NZS 4804: 2001 <i>Occupational health and safety management systems – General guidelines on principles, systems and supporting techniques.</i></p> <p>Asfahl, C.R. and Rieske D.W. (2010). <i>Industrial Safety and Health Management</i>, 6<sup>th</sup> Ed., Pearson Education, Inc., Upper Saddle River, NJ, USA.</p> <p>Bahr, N.J. (2014). <i>System Safety Engineering and Risk Assessment: A Practical Approach</i>, 2<sup>nd</sup> Ed., CRC Press.</p> <p>BS OHSAS 18001:2007 <i>Occupational health and safety management systems – Requirements.</i></p> <p>BS OHSAS 18002:2008 <i>Occupational health and safety management systems – Guidelines for the implementation of OHSAS 18001:2007.</i></p> <p>BS8800:1996 (1996). <i>Guide to Occupational Health and Safety Management Systems</i>, British Standards Institution, UK.</p> <p>BS8800:2004 <i>Occupational health and safety management systems — Guide.</i></p> <p>Hopkin, A. (1995). <i>Making Safety Work: Getting Management Commitment to Occupational Health and Safety</i>, Allen &amp; Unwin Pty Ltd., Australia.</p>																																												

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