

Subject Description Form

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| Subject Code | CSE508 |
| Subject Title | Environmental Impact Assessment |
| Credit Value | 3 |
| Level | 5 |
| Pre-requisite/ Co-requisite/ Exclusion | <u>Recommended background knowledge:</u> Engineering or applied science undergraduate background. |
| Objectives | To provide students with an overview and understanding of the principles and current practices of environmental impact assessment (EIA). In particular, emphasis will be placed on environmental impact assessment studies relevant to Hong Kong. |
| Intended Learning Outcomes | Upon completion of the subject, students will be able: <ul style="list-style-type: none"> a. to conduct EIA studies in a team; b. to perform environmental monitoring work within the EIA cycle; c. to critically comment EIA reports and other related documents; d. to analyze complex environmental issues and to seek the best possible practical solutions for large infrastructural development project; and e. to understand the relationship among project EIA, Strategic Environmental Assessment (SEA) and sustainable development. |
| Subject Synopsis/ Indicative Syllabus | <p><u>Keyword syllabus:</u></p> <ul style="list-style-type: none"> i) <u>Development of Environmental Impact Assessment</u> Historical review. Environmental assessment development in the world and Hong Kong. ii) <u>Scope and Objectives of Environmental Impact Assessment</u> Environmental considerations: land use, planning, development and management. EIA aims and objectives. Environmental assessment and sustainable development. iii) <u>Methodology and Assessment Techniques</u> |

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| | <p>Methods for assessing direct impacts and indirect impacts. Modeling and miscellaneous assessment techniques. Methods for air, water, noise and ecology assessment. Other environmental issues (risk, visual, cultural and social-economical impacts).</p> <p>iv) <u>Monitoring and Baseline Studies</u></p> <p>Environmental effects. Baseline studies requirements. Special field studies. Environmental monitoring and audit.</p> <p>Air, water, ecological, socioeconomic, visual, risk impact assessments. Environmental quality and regulatory requirements. Mitigation and control measures.</p> <p>v) <u>Environmental Impact Statement</u></p> <p>Role of Environmental Impact Statement, Statement Scope & Content, Report writing techniques.</p> <p>vi) <u>Case Studies</u></p> <p>Selected case studies on the EIA of infrastructure and other development projects.</p> |
| Teaching/Learning Methodology | <p>The subject teaching will include the following elements:</p> <ol style="list-style-type: none"> Lectures – to introduce the basic concepts and assessment methods; Tutorials – to answer student questions in the learning processes; Group discussion and presentations – to let students play different roles in the EIA process; Reading materials and video presentations – to give students examples in local EIA case studies; Seminars on EIA practices by invited speakers from government agencies and professional environmental consultants; and Course work and term project (individual cases study) on EIA in Hong Kong. |

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| Assessment Methods in Alignment with Intended Learning Outcomes | Specific assessment methods/tasks | % weighting | Intended subject learning outcomes to be assessed (Please tick as appropriate) | | | | |
| | | | a. | b. | c. | d. | e. |
| | 1. Continuous Assessment | 50% | √ | √ | √ | √ | √ |
| | 2. Written Examination | 50% | √ | √ | √ | √ | √ |
| | Total | 100% | | | | | |
| <p>Written examination is evaluated by final examination.</p> <p>Students must pass the final examination and achieve a passing overall score / grade to pass the subject.</p> | | | | | | | |
| Reading List and References | <p>The following texts provide the majority of the basic materials to be covered in lectures. Students will need to study other publications including case studies.</p> <p>Barbara Carroll, 2002. <i>Environmental Impact Assessment Handbook: A Practical Guide for Planners, Developers and Communities</i>. Thomas Telford, London.</p> <p>Canter, L.W., <i>Environmental Impact Assessment</i>, 2nd Ed., McGraw-Hill, (1996).</p> <p>Christopher Wood. 2003. <i>Environmental Impact Assessment: A Comparative Review</i>. Prentice Hall, New Jersey.</p> <p>Hong Kong Environmental Protection Department http://www.epd.gov.hk/eia/</p> <p>Riki Therivel, Peter Morris, 2001. <i>Methods of Environmental Impact Assessment</i>. Spon Press, London.</p> | | | | | | |