

Subject Description Form

Subject Code	CE123
Subject Title	Managing the Built Environment
Credit Value	3
Level	1
Pre-requisite	Nil
Objectives	<p>As the construction industry and its management have profound impacts on the community and the economy, this subject is intended to enable students to acquire a holistic view and understanding of the construction industry in Hong Kong and China, its relation to urban development and the principles of management.</p> <p>The subject serves to provide an academic underpinning for the Broad Discipline of Construction and Environment, and to achieve the following general learning objectives:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Expansion of intellectual capacity and interdisciplinary learning <input checked="" type="checkbox"/> Critical and creative thinking and problem solving skills <input checked="" type="checkbox"/> Social and national responsibility <input checked="" type="checkbox"/> Teamwork <input checked="" type="checkbox"/> Global outlook and lifelong learning
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a. Give an overview of the fundamental characteristics of the construction industry and built environment in Hong Kong and China. b. Give an overview of the social, economic, ecological and environmental impacts of construction development on communities. c. Apply the basic knowledge in managing the health, carbon footprint and safety aspects of the built environment. d. Apply the fundamental management principles in the built environment. e. Communicate effectively in the process of project management. f. Contribute as team members and work effectively in teamwork. <p>The intended learning outcomes can raise the students' literacy level on the construction industry and its management, as they are expected to work and contribute to the creation of the built environment in general and the construction sector in particular in due course.</p> <p>The subject is so designed that students will be expected to do reading and substantive writing. Students will also be expected to apply systematic, critical, and creative thinking in dealing with real life construction related management problems. The knowledge conveyed to the students is closely linked to work in the broad discipline, which shall promote higher order thinking and equip them with skills for active enquiry and life-long learning.</p>

Subject Synopsis/ Indicative Syllabus	<ul style="list-style-type: none"> • Overview of the built environment and the construction and property sector in Hong Kong and China: structure and stakeholders, significance and functions in urban development, contribution to national and world economy. • Impacts of constructions and asset management: social, economic, ecological, and environmental aspects. • Managing the health, carbon footprint and safety aspects of the built environment. • Overview of the construction process from inception to completion and the management of the constructed facilities. • Management principles: <ul style="list-style-type: none"> - Operations management and project management. - What managers do. - Managers' roles taking into account the impacts of the project environment and business environment. - Basic techniques for scheduling, progress, cost and quality control. • Project and project management: <ul style="list-style-type: none"> - Characteristics of project. - Project management as a profession; principles of planning, organizing, controlling, and the application to project management. - The process of project management. 																																														
Teaching/Learning Methodology	<p>A range of teaching and learning methods will be adopted, with a problem-based approach in deliverance of the subject materials.</p> <ul style="list-style-type: none"> • Lectures will be used to convey an overview of characteristics of the construction and property sector and apply the principles of management to the built environment; • Problem-based case studies will be employed for illustrating the prestigious and mega building construction projects in Hong Kong and China; • Students will develop managerial skills in problem solving, effective communication, and teamwork through management workshops; • Seminars and tutorials are used to discuss project management topics in depth through case studies, role play, assignments, and student presentation; • Independent study: <ul style="list-style-type: none"> - Coursework exercise - Case study analysis - Self-study 																																														
Assessment Methods in Alignment with Intended Learning Outcomes	<table border="1" data-bbox="421 1570 1382 1984"> <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>e</th> <th>f</th> </tr> </thead> <tbody> <tr> <td>1. Seminars</td> <td>20%</td> <td>√</td> <td></td> <td></td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>2. Group Projects</td> <td>20%</td> <td></td> <td></td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>3. Written Examination</td> <td>60%</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>Students must attend the exam and submit all coursework in order to pass this subject.</p>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d	e	f	1. Seminars	20%	√			√	√	√	2. Group Projects	20%			√	√	√	√	3. Written Examination	60%	√	√	√	√			Total	100%						
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Student Study Effort Expected	Class contact:	
	▪ Lectures (13 x 2)	26 Hrs.
	▪ Seminar / Workshop / Tutorial (12 x 1)	12 Hrs.
	Other student study effort:	
	▪ Preparation for project, seminar and case study	40 Hrs.
	▪ Self-study	42 Hrs.
	Total student study effort	120 Hrs.
Reading List and References	<p>BEAM Society. BEAM Plus v1.2 for Existing Buildings. 2012.</p> <p>Kerzner, H. Project Management: Case Studies. Hoboken, N.J.: Wiley, 2006.</p> <p>Klein, H. Basics Project Planning. Basel: Birkhäuser, 2008.</p> <p>Lee, CF et al. Reinventing the Hong Kong Construction Industry for Its Sustainable Development. Construction Industry Institute – Hong Kong (CII-HK) Report No.13, ISBN 978-988-99558-4-7, 2008.</p> <p>Liebing, R. The Construction Industry: Processes, Players and Practices. Prentice Hall, 2001.</p> <p>Lock, D. The Essentials of Project Management. Aldershot : Gower, 2007.</p> <p>Lu, Y.J. and Fox, P.W. The Construction Industry in China: Its Image, Employment Prospects and Skill Requirements. Geneva: International Labor Office, 2001.</p> <p>Myers, D. Construction Economics: A New Approach. London: Spon Press, 2004.</p> <p>Nicholas, John M. Project Management for Business, Engineering, and Technology: Principles and Practice. Burlington, MA; Oxford, UK: Elsevier/Butterworth Heinemann, 2008.</p> <p>Turner, J.R. Gower Handbook of Project Management. Aldershot, England; Burlington: Gower, 2007.</p> <p>Project Management Institute (2008) A Guide to the Project Management Body of Knowledge. PMI.</p> <p>An Introduction to PRINCE http://www.ogcio.gov.hk/en/infrastructure/methodology/proj_mgmt/doc/g38a_pub.pdf</p> <p>Works Bureau Technical Circulars http://www.devb.gov.hk/TechnicalCirculars.aspx?section=53&lang=1 Tender Procedures Contractors – General/Project Management Consultants Construction Site Safety</p> <p>Buildings Department http://www.bd.gov.hk/english/index_e.html</p>	