

Subject Description Form

Subject Code	BRE350
Subject Title	Project Management and Procurement
Credit Value	3
Level	3
Pre-requisite / Co-requisite/ Exclusion	Pre-requisite: BRE2921 Co-requisite/Exclusion: Nil
Objective	1. Extend students' understanding of management principles and develop the knowledge of project management and procurement in the construction industry.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: 1. Apply knowledge of time, quality, safety and environmental management for construction projects. 2. Negotiate and resolve conflicts between management and employees. 3. Communicate with others in a clear and articulate manner. 4. Identify and propose solutions to problems. 5. Identify the different forms of procurement and assess their impacts on the success of a project. 6. Describe the principles underlying the choice of appropriate procurement systems. 7. Apply and compare alternative procurement systems for all types of construction work.
Subject Synopsis/ Indicative Syllabus	<p><i>Quality, Safety and Environmental Management</i> Quality assurance system, safety management system and environmental management.</p> <p><i>Human Resources Management</i> Recruitment, selection and engagement of personnel in construction organizations, and industrial relations.</p> <p><i>Planning and Programming Techniques</i> Planning and programming techniques including bar chart, critical path analysis and line of balance.</p> <p><i>Construction Procurement</i></p> <ul style="list-style-type: none"> ● The nature of building process, models of the process. ● Categorization of procurement systems. ● Alternative procurement systems such as traditional sequential, traditional accelerated, competitive design and build, enhanced design and build, novated design and build, management contracting and construction management, guaranteed maximum price and target cost contracting, and public private partnership. ● Choice of appropriate procurement methods, allocation of risks and liabilities of the major parties to the arrangement.

	<ul style="list-style-type: none"> ● Relational contracting and its impact on procurement. ● Subcontracting management in construction. 																																																																												
Teaching/Learning Methodology	Lectures will be used to introduce systems and techniques whilst the small group work will be used for the application of management skills through role-play and seminar presentation.																																																																												
Assessment Methods in Alignment with Intended Learning Outcomes	<table border="1" data-bbox="443 524 1513 1003"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="7">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> </tr> </thead> <tbody> <tr> <td>1. Role Play</td> <td>25%</td> <td></td> <td>√</td> <td>√</td> <td>√</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2. Seminar/Group Report</td> <td>25%</td> <td></td> <td></td> <td></td> <td></td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>3. Examination</td> <td>50%</td> <td>√</td> <td></td> <td></td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>Total</td> <td>100 %</td> <td colspan="7"></td> </tr> </tbody> </table> <p data-bbox="443 1055 1477 1122">Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <table border="1" data-bbox="443 1137 1501 1697"> <thead> <tr> <th><i>Learning outcomes</i></th> <th>Role Play</th> <th>Seminar Presentation / Written Report</th> <th>Examination</th> </tr> </thead> <tbody> <tr> <td>1. to possess skills to identify, analyze and solve</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>2. to have an understanding of professional, social and ethical responsibilities</td> <td>√</td> <td></td> <td>√</td> </tr> <tr> <td>3. to communicate effectively</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>4. to contribute as team member and to lead effectively</td> <td>√</td> <td>√</td> <td></td> </tr> <tr> <td>5. to identify contemporary issues</td> <td></td> <td></td> <td>√</td> </tr> </tbody> </table> <p data-bbox="443 1738 1318 1805"><u>The assessment criteria adopted in tutorial/seminars</u> ("plus" grade for enhanced performance possible for each grade except F)</p> <ol style="list-style-type: none"> 1. Role Play – individual assessment (25%) <ul style="list-style-type: none"> ● Oral presentation skills: A for excellent, B for good, C for clear, D for reading from script, F for mumbling ● Familiarity with the topic: A for excellent, B for good, C for adequate, D for poor, F for no knowledge ● Answer during discussion: A for excellent, B for good, C for adequate, D for barely sufficient, F for poor 	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)							1	2	3	4	5	6	7	1. Role Play	25%		√	√	√				2. Seminar/Group Report	25%					√	√	√	3. Examination	50%	√			√	√	√	√	Total	100 %								<i>Learning outcomes</i>	Role Play	Seminar Presentation / Written Report	Examination	1. to possess skills to identify, analyze and solve	√	√	√	2. to have an understanding of professional, social and ethical responsibilities	√		√	3. to communicate effectively	√	√	√	4. to contribute as team member and to lead effectively	√	√		5. to identify contemporary issues			√
Specific assessment methods/tasks	% weighting			Intended subject learning outcomes to be assessed (Please tick as appropriate)																																																																									
		1	2	3	4	5	6	7																																																																					
1. Role Play	25%		√	√	√																																																																								
2. Seminar/Group Report	25%					√	√	√																																																																					
3. Examination	50%	√			√	√	√	√																																																																					
Total	100 %																																																																												
<i>Learning outcomes</i>	Role Play	Seminar Presentation / Written Report	Examination																																																																										
1. to possess skills to identify, analyze and solve	√	√	√																																																																										
2. to have an understanding of professional, social and ethical responsibilities	√		√																																																																										
3. to communicate effectively	√	√	√																																																																										
4. to contribute as team member and to lead effectively	√	√																																																																											
5. to identify contemporary issues			√																																																																										

	<p>2. Seminar (Group report) – overall (group) assessment (25%)</p> <ul style="list-style-type: none"> • Written communication skills: A for excellent, B for good, C for clear, D for barely sufficient, F for poor • Data/information collection: A for excellent, B for good, C for adequate, D for barely sufficient, F for poor • Data interpretation & analysis: A for excellent, B for good, C for adequate, D for barely sufficient, F for poor • Identification of problem/issue: A for excellent, B for good, C for adequate, D for barely sufficient, F for poor • Conclusion: A for excellent, B for convincing, C for adequate, D for barely sufficient, F for poor 	
<p>Student Study Effort Expected</p>	<p>Class contact:</p>	
	<ul style="list-style-type: none"> ▪ Lectures 	<p>21 Hrs.</p>
	<ul style="list-style-type: none"> ▪ Seminars/Tutorials 	<p>21 Hrs.</p>
	<p>Other student study effort:</p>	
	<ul style="list-style-type: none"> ▪ Independent study 	<p>120 Hrs.</p>
	<p>Total student study effort</p>	<p>162 Hrs.</p>
<p>Reading List and References</p>	<p>Recommended Reading List:</p> <p><u>Project Management</u></p> <p>Chan, P.C., Wong, K.W., Chan, W.M., , Cheung, E., Choy, E., Chung, S.K., Kwok, W.K., Lam, W.M., Lee, W.C., Liu, C.H., Lo, C.H., Siu, K.W., Wong, C.W., & Yam, C.H., (2009) Developing a Prototype for the Rapid Demountable Platform (RDP) – Stage II of CII-HK Research on “Construction Safety Involving Working at Height for Residential Building Repair and Maintenance”, Research Summary Report, Construction Industry Institute – Hong Kong, ISBN No. 1978-988-99558-7-8, April, 43pp.</p> <p>Chan, A.P.C., Wong, F.K.W., Chan, D.W.M., Chan, E.H.W., Cheung, E., Kwok, A.W.K., Lam, E.W.M., Yam, M.C.H. and Yiu, E.C.Y. (2007). <i>Construction Safety Involving Working at Height for Residential Building Repair and Maintenance</i>, Summary Report, Construction Industry Institute – Hong Kong, Research Report No. 9, 52 pages, ISBN 978-988-99558-1-6, November 2007.</p> <p>Chan A.P.C., Wong F.K.W., Yam M.C.H., Chan D.W.M., Ng J.W.S. and Tam C.M. (2005). <i>From Attitude to Culture - Effect of Safety Climate on Construction Safety</i>, Research Monograph, Department of Building and Real Estate, The Hong Kong Polytechnic University, ISBN 962-367-432-5, 160 pages.</p> <p>Chan P.C., Wong K.W., Lam T.I. and Choi C.W. (2004) <i>Quality Relationships in Public Housing of Hong Kong</i>, Research Monograph, Department of Building and Real Estate, The Hong Kong Polytechnic University, ISBN 962-367-426-0, 77 pages.</p> <p>Harris F. and McCaffer R. (2001) <i>Modern Construction Management</i>, 5th Edition, Blackwell Science: Oxford</p> <p>Lam T.I., Wong K.W., Chan P.C., Shea C.Y. and Poon C.K. (2004) <i>Development of a Quality Assessment Mechanism for Private Residential Building Projects in Hong Kong</i>,</p>	

Research Monograph, Department of Building and Real Estate, The Hong Kong Polytechnic University, ISBN 962-367-421-X, 69 pages.

Lavender S. (1996) *Management for the Construction Industry*, Longman: UK

Poon, S.W., Tang, S.L., & Wong, K.W. (2008) *Management and Economics of Construction Safety in Hong Kong*, Hong Kong University Press, June, ISBN No. 978-962-209-906-7, 169pp

Tang S.L., Ahmed S.M., Aoieong R.T. and Poon S.W. (2005) *Construction Quality Management*, Hong Kong University Press: Hong Kong

Tang S.L., Poon C.S., Ahmed S.M. and Wong F.K.W. (2003) *Modern Construction Project Management*, 2nd Edition, Hong Kong University Press: Hong Kong

Walker Anthony (2002) *Project Management in Construction*, 4th Edition, Blackwell Sciences: Oxford

Yam, C.H., Wong, K.W., Chan, P.C., Cheung A.C., Chan, W.M., Chan, W.T., & Chan, H.L. (2007) *Safety Considerations for Residential Repair and Maintenance Works on Facades in the Design Phase in Hong Kong*, Research Monograph, The Hong Kong Polytechnic University, August, ISBN No. 978-962-367-515-4, 148pp.

Construction Procurement

Chan, APC, Chan, DWM, and Yeung, JFY (2010) *Relational Contracting for Construction Excellence – Principles, Practices and Case Studies*. Spon Research, Taylor & Francis, 1st Edition, ISBN13: 978-0-415-46669-1, HD9715.A2C47 2009, 624.068'4-dc22, 334 pages.

Chan A.P.C. and Chan D.W.M., Editors (2004). *Proceedings of the CII-HK Conference 2004 on Construction Partnering: Our Partnering Journey - Where Are We Now, and Where Are We Heading?*, Construction Industry Institute – Hong Kong, 9 December 2004, Hong Kong, China, ISBN 988-98153-2-X, 206 pages.

Chan A.P.C., Chan D.W.M., Fan L.C.N., Lam P.T.I. and Yeung, J.F.Y. (2004). *A Comparative Study of Project Partnering Practices in Hong Kong*, Summary Report, Construction Industry Institute – Hong Kong, Research Report No. 1, ISBN 988-98153-1-1, 40 pages.

Chan A.P.C., Chan D.W.M., Ho K.S.K., Chiang Y.H., Chan E.H.W. and Tang B.S. (2002) *An Analysis of Project Partnering in Hong Kong*, Research Monograph, Department of Building and Real Estate, The Hong Kong Polytechnic University, ISBN 962-367-363-9, 96 pages.

Chan A.P.C., Ho D.C.K., and Tam C.M. (2003) *Evaluation of Integrated Procurement Systems in Hong Kong*, Research Monograph, Department of Building and Real Estate, The Hong Kong Polytechnic University, ISBN 962-367-286-1, 75 pages.

Chan A.P.C. and Yu A.T.W. (2003) *Construction Process Improvement – A Case Study of the North District Hospital*, Research Monograph, Department of Building and Real Estate, The Hong Kong Polytechnic University, ISBN 962-367-287-X, 63 pages.

Chan A.P.C and Yung E.H.K. (2003) *Procurement Selection Model for Hong Kong*, Research Monograph, Department of Building and Real Estate, The Hong Kong Polytechnic University, ISBN 962-367-285-3, 143 pages.

Masterman J.W.E. (2002) *An Introduction to Building Procurement Systems*, 2nd Edition, E&FN Spon, London.

Turner A. (1997) *Building Procurement*, UK MacMillan