

The Hong Kong Polytechnic University

Subject Description Form

| | |
|--|---|
| Subject Code | CE1000 |
| Subject Title | Construction for Better Living |
| Credit Value | 3 |
| Level | 1 |
| Pre-requisite / Co-requisite/ Exclusion | Nil |
| Objectives | <p>This subject is a Freshman Seminar entitled “Construction for Better Living” specially devised for all first-year students enrolled in Construction and Environment (CE) Disciplines. It focuses on CE from the perspective of a very fundamental human desire, “Better Living” and its objectives are to:</p> <ul style="list-style-type: none">- introduce students how their chosen CE disciplines can contribute to “Better Living” in their freshman year, and enthuse them about their major study;- cultivate students’ creativity, problem-solving ability, and global outlook;- expose students to the concepts and an understanding of entrepreneurship; and- engage students, in their first year of study, in desirable forms of learning at university that emphasizes self-regulation, autonomous learning, deep understanding and academic integrity |
| Intended Learning Outcomes <i>(Note 1)</i> | <p>Upon completion of the subject, students will be able to:</p> <ul style="list-style-type: none">(a) state the overall construction process from planning to execution where PolyU’s CE professionals are involved;(b) correlate various parameters with the effectiveness of relevant technologies/interventions in the CE context for enhancing living quality;(c) explain the importance of PolyU’s CE professionals in the construction industry and their contributions to “Better Living” and “Sustainability”;(d) demonstrate creative thinking, problem solving, global outlook and entrepreneurship abilities for addressing “Better Living” and “Sustainability” issues in the CE context;(e) adopt desirable forms of learning for the university study and aware of academic integrity and plagiarism. |

| | |
|--|--|
| <p>Subject Synopsis/ Indicative Syllabus</p> <p><i>(Note 2)</i></p> | <p><u>Subject Synopsis</u></p> <p>FCE has a long history in working with sustainable urban development and built environment, and is one of the leading contributors on these areas. In this subject, colleagues from various departments in FCE will brief students the various existing technologies, latest thoughts and developments which are expected to be able to enhance the living quality of human beings, and hence sustainable urban development, through real life examples (e.g. green roof, wing walls, building orientation and architectural forms, material selection, energy efficient equipment, etc).</p> <p>Living quality in the present subject is not restricted to the residential environment though it is probably the most important area having substantial impact on human health. Information on the design of leisure and cultural establishments such as theatres, performance halls, museums, etc will also be provided to students. The importance of the construction industry and its professionals in enhancing these living standards and sustainable development will be emphasized.</p> <p>Reputable industrial practitioners and FCE alumni and colleagues from Business School will be invited to give seminars to students to share their experiences in handling construction projects and solving problems on technical, financial and other issues in the industry.</p> <p>Site visits and a mini project will be set up for the students to have a deeper understanding on the related technologies and the knowledge covered in the subject and how they have been applied in practice.</p> <p><u>Indicative Syllabus :</u></p> <p>Week 1 Introduction to the FCE and the Construction Industry and Process Weeks 2 – 6 Environmental Parameters, Standards and Technology: Noise, Lighting, Ventilation, Thermal Comfort, Heat, Geo-informatics, Sustainability Week 7 – Sustainability and mini project briefing Weeks 8 – 10 Site Visit I to III Weeks 11 – 12 Seminars by Faculty of Business and Practitioners/Alumni Week 13 Mini Project Group Work</p> |
| <p>Teaching/Learning Methodology</p> <p><i>(Note 3)</i></p> | <p>The teaching and learning methodology involves inspirational lectures, mini project group work, online assignments, practitioners’/alumni’ seminars, site visits and tutorials. A blended approach involving a combination of face-to-face teaching and an online companion site will be employed to support the teaching and learning delivery for facilitating easy access to teaching and learning materials and teacher-student and student-student interactions in class and out of class.</p> <p>The knowledge gained from the inspirational lectures, tutorials and online activities in the early stage of the curriculum constitute a part of the foundation for students in developing their creative thinking, problem solving, global outlook and entrepreneurship abilities in the discipline. Practitioners’/alumni’ seminars and site visits are purposefully arranged to introduce students how the knowledge are applied in practice, the gap between theory and practice in the construction industry and the aforementioned abilities this Freshman Seminar aims to emphasize.</p> <p>Lastly, it is noteworthy to mention that the key feature of the teaching and</p> |

learning methodology is experiential in nature and through the mini project group work, students are expected to base on what they learn from FCE colleagues through inspirational lectures and tutorials, practitioners'/alumni' seminars, site visits, etc to come up with solutions/ideas that demonstrate their creative thinking, problem solving, global outlook and entrepreneurship abilities for addressing "Better Living" and "Sustainability" issues in the CE context.

Assessment Methods in Alignment with Intended Learning Outcomes

(Note 4)

| Specific assessment methods/tasks | % weighting | Intended subject learning outcomes to be assessed (Please tick as appropriate) | | | | | |
|--|-------------|--|---|---|---|---|---|
| | | a | b | c | d | e | |
| 1. Online Participation + Assignments | 40% | ✓ | ✓ | ✓ | | | |
| 2. Mini Project Group Work | 60% | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 3. Online Tutorial on Academic Integrity | 0% | | | | | | ✓ |
| Total | 100 % | | | | | | |

The assessment task 1 is knowledge-oriented and plays a part in addressing the intended learning outcomes (a) – (c) covered in inspirational lectures, tutorials and online activities in the early stage of the curriculum.

The assessment task 2 is high-order in nature and the mini project group work serves as a main and effective assessed task (i.e. 60% of the overall assessment grade) for students to demonstrate their overall attainment of intended learning outcomes (a) – (e) at the end of the curriculum.

The assessment task 3 is for awareness of the expected honest academic behavior and of the importance of academic integrity. Students are required to complete the online tutorial within the first 5 weeks of the subject. Students who cannot complete the tutorial will **fail** the subject. Information of the online tutorial can be found using the link http://www.polyu.edu.hk/ogur/academic_integrity/Student_Guide.pdf

A letter-grading system will be used to assess students' performance.

Student Study Effort Expected

| | |
|--------------------------------|---------|
| Class contact: | |
| ▪ Inspirational Lectures | 12 Hrs. |
| ▪ Practitioner/Alumni Seminars | 4 Hrs. |
| ▪ Tutorials | 14 Hrs |

| | | |
|------------------------------------|--|---------|
| | <ul style="list-style-type: none"> ▪ Site Visits | 12 Hrs |
| | Other student study effort: | |
| | <ul style="list-style-type: none"> ▪ Online Assignments/Self Study | 33 Hrs. |
| | <ul style="list-style-type: none"> ▪ Preparation, Reporting and Presentation for Mini Projects | 50 Hrs. |
| | Total student study effort | 125 Hrs |
| Reading List and References | <p>J.Wines, <i>Green Architecture</i>, Taschen, 2000 (or similar references)</p> <p>S.V.Szokolay, <i>Introduction to architectural science: the basis of sustainable design</i>, Architectural Press, Oxford 2008</p> <p>P.Green, <i>Double-skin facades: integrated planning, building physics, construction, aerophysics, air-conditioning, economic viability</i>, Prestel, Munich, 2001.</p> <p>F.E.Gould, <i>Managing the construction process: estimating, scheduling and project control</i>, Pearson, New York, 2005.</p> <p>R.Tomlinson, <i>Thinking About GIS</i>, ESRI Press, New York, 2007.</p> <p>K.W.Kolodziej, J.Hjelm, <i>Local Positioning Systems, LBS Applications and Services</i>. CRC, Taylor & Francis, 2006.</p> <p>B. Stein, J.S. Reynolds, <i>Mechanical and electrical equipment for buildings</i>, Wiley, New York, 2000.</p> | |

Note 1: Intended Learning Outcomes

Intended learning outcomes should state what students should be able to do or attain upon completion of the subject. Subject outcomes are expected to contribute to the attainment of the overall programme outcomes.

Note 2: Subject Synopsis/ Indicative Syllabus

The syllabus should adequately address the intended learning outcomes. At the same time over-crowding of the syllabus should be avoided.

Note 3: Teaching/Learning Methodology

This section should include a brief description of the teaching and learning methods to be employed to facilitate learning, and a justification of how the methods are aligned with the intended learning outcomes of the subject.

Note 4: Assessment Method

This section should include the assessment method(s) to be used and its relative weighting, and indicate which of the subject intended learning outcomes that each method purports to assess. It should also provide a brief explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes.