

Subject Description Form

Subject Code	CSE3S01
Subject Title	Built Environment Enhancement for Underprivileged Communities
Credit Value	3
Level	3
Pre-requisite/ Co-requisite/ Exclusion	Nil
Objectives	The objectives of this subject are: 1. To introduce to students the concept and practice of service learning. 2. To raise students' awareness of the problem with the build environment in Hong Kong and educate them on the challenges and needs of the underprivileged communities. 3. To provide students' an opportunity to apply their classroom knowledge in solving real-life problems in local communities. 4. To raise students' awareness of their role as a construction industry professional in society. 5. To enhance students' generic competence of innovative problem solving, communication and teamwork.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. Demonstrate an understanding of how the built environment enhancement improves the welfare of the community b. Propose and evaluate alternative solutions to address the needs of the underprivileged c. Reflect on their role and responsibilities as a professional d. Work effectively in a multi-disciplinary team to solve problems and communicate effectively with clients and stakeholders. e. Demonstrate empathy for the underprivileged and a strong sense of civic responsibility
Subject Synopsis/ Indicative Syllabus	Built environment refers to the man-made space in which people live, work, and recreate on a day-to-day basis. It is a multi-disciplinary field that addresses the design, construction, management, and use of these man-made surroundings as well as their relationships with human activities. This service-learning subject serves as a platform for students to work in a multi-disciplinary team to identify and investigate built-environment related problems faced by the underprivileged group with quantitative and qualitative techniques, and devise solutions from a human-centred approach. The topics in the subject syllabus cover three major areas:

	1. Concept and Practice of Service Learning (e-learning module) • Principles, concepts and myths of service learning • Benefits of service learning to students, the university and the community • Ethical issues in service learning • Basic concepts and theories of social problems, developments and justices • Social responsibilities of global citizens as intellectuals and professionals • Proper attitudes and behaviours in service delivery • Developing a service project proposal/ plan • Effective teamwork and problem-solving skills in service-learning projects • Reflection as a tool for learning 2. Discipline-specific contents • Practical issues and problems faced by the underprivileged in the built environment • Impacts of construction and management of the built environment in social, economic and environmental aspects • Standards, statutory and international guidelines relevant to the underprivileged, and approval procedures • Data collection, analysis and elementary design knowledge relevant to the built environment and the community service 3. Project-specific contents • Understand the background of the community partner and the beneficiaries • Health, safety and other issues relevant to the service project • Empathy, moral and ethical concerns specific for the project and the beneficiaries
Teaching/Learning Methodology	1. E-learning module The e-learning module is developed and delivered by the Service-Learning and Leadership Office (SLLO) of PolyU to introduce students to the basic concepts and the practice of service learning. 2. Lectures/ Workshops (Weeks 1 – 4) Lectures/ workshops are designed to equip students with the discipline-specific and project-specific knowledge and skills required for the planning and delivery of the service projects. Speakers from the industry/ NGO will be invited as appropriate. 3. Service project (Weeks 5 – 12) In the service project, students are expected to: (i) Identify built-environment related problems that underprivileged people (or communities) are facing with quantitative and qualitative techniques;

(ii) Develop feasible solution(s) to address the problem identified in item (i) together with the beneficiaries;

(iii) Communicate their proposals to a community partner and/or beneficiaries through reports, presentations, and videos

Students would work as a team with the beneficiaries to undertake the above tasks with the major service activities in Weeks 5 – 10, project presentation at community centres in Week 11 – 12.

Project Development (Week 5 – 10)

- *Weekly service sessions:* Students will participate in weekly service sessions to work on the project deliverables together with the beneficiaries. Activities include initial planning, site visits and interviews together with the beneficiaries, discussion sessions for problem identification and development of solution, making of prototypes to test the suggested solution, and preparation of presentation/ sharing session at community centres.
- *Supplementary service activities (~4hrs per week):* In addition to the above scheduled service sessions, students are expected to self-plan and undertake supplementary service activities, including but not limited to additional site visits, field investigation, street interviews, extra meetings with beneficiaries, prototype making, etc. These supplementary service activities are essential to the achievement of service outcomes, and the types and duration of these activities are project dependent and can be scheduled flexibly.

Presentation (Week 11-12)

- Each group will plan and deliver a sharing session at the community centre to share their findings, and receive further comments from the audience on whether the team has successfully identified the problems that they are facing, and if the proposed solution can adequately meet their needs. The sharing session also serves the purpose of raising the public awareness of the built-environment issues concerned. **The presentations are scheduled in Week 11 or 12, but the exact time and venue of the sharing session is to be determined by the community partner.**

Project Meeting

- Each group is required to meet with their project supervisor 3 times. In the meetings, students will report their progress made and plan for the upcoming tasks. In addition, the project meetings also provide an opportunity for students to reflect on their service experience and identify rooms for improvements and further developments.

In order to pass the subject, 100% participation is required in the service activities in the above.

	2. Upon the formation of service group, students would undertake a <i>pre-service site visit and complete a worksheet</i> to develop an initial understanding of the study site. It assesses students' application of subject knowledge in service, understanding of community problems, and teamwork. (ILO a, d, e) 3, 4. Throughout the service project, students' performance in service (ILO b, c, d, e) would be evaluated individually (10%) and in group (ILO d) through direct observation during the service sessions and the project meetings. 5. The major project deliverables: <i>project report, presentation, and video</i> would holistically assess all learning outcomes of the subject (ILO a, b, c, d, e). The presentation would take place at the community centres with the major purpose of sharing project findings, receiving comments for further enhancement of the proposed solutions, and community engagement. The project report is expected to be detailed documentation of the project, with clear and well-supported problem identification, details explanation and analysis of proposed solutions from various perspectives. The video serves as a concise summary of the project for dissemination purpose. These components are evaluated based on the contents, delivery/ presentation, taking into account the comments and feedback from the presentation audience and community partner. 6. Upon the completion of all major service activities. Students will attend a debriefing session where they share with the class on the major project findings as well as a reflection of their learning in the service activities. Each group is expected to deliver a short presentation and engage in other in-class activities to facilitate reflection in the debriefing session. (ILO a, b, c, d, e). 7. Students should submit <i>two reflective journals</i> (15% and 25%) in the middle and the end of the service activities. Students are expected to elaborate on their learning with respect to all learning outcomes (ILO a, b, c, d, e) in a reflective approach, supported by their specific experiences in the service activities. In order to pass the subject, 100% participation in the service activities is expected. Grade penalty will be incurred if students cannot achieve 100% attendance in the service activities with approved leaves due to extenuating reasons. Unapproved leaves would lead to direct failure in this subject.
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Student Study Effort Expected	e-Learning Module	10 Hrs.
	Class contact:	
	▪ Discipline- or project-specific sessions	12 Hrs.
	▪ Project meetings and debriefing session	6 Hrs.
	Other student study effort:	
	▪ Readings, self-study, and planning and preparation for the service project	16 Hrs.
	▪ Service delivery	40 Hrs.
	Reflection and review	28 Hrs.
	Total student study effort	112 Hrs.
Reading List and References	1. Cress, C.M., Collier, P.J., Reitenauer, V.L., & Associates. (2005). <i>Learning through serving: A student guidebook for service-learning across the disciplines</i>. Sterling, Virginia: Stylus Publishing. 2. Adams, M., Blumenfeld, C.R., Castañeda, C.R., Hackman, H.W., Peters, M.L., & Zúñiga, X. (Eds) (2010). <i>Readings for Diversity and Social Justice</i>, 3rd ed., UK: Routledge. 3. Johnson, A.G. (2005). <i>Privilege, Power, and Difference</i>. McGraw-Hill Higher Education. 4. Sen, A.K. (2009). <i>The Idea of Justice</i>. Harvard University Press. 5. Sandel, M.J. (2009). <i>Justice: What's the Right Thing to Do?</i> Farrar, Straus and Giroux. 6. Berman, S. (2006). <i>Service learning: a guide to planning, implementing, and assessing student projects</i>, 2nd ed., Corwin Press. 7. Kaye, C.B., (2003). <i>The Complete Guide to Service Learning: Proven, Practical Ways to Engage Students in Civic Responsibility, Academic Curriculum, and Social Action</i>. Free Spirit Publishing. 8. Jacoby, B. & Associates. (2003). <i>Building partnerships for service-learning</i>. John Wiley & Sons. 9. Zhang, X., Gartner, N., Gunes, O., & Ting J.M. (2007). Integrating Service-learning Projects into Civil Engineering Courses. <i>International Journal for Service Learning in Engineering</i>, 2(1), 44 – 63 10. Coyle, E.J., Jamison, L.H., & Oakes, W.C., (2005). EPICS: Engineering Projects in Community Service. <i>International Journal of Engineering Education</i>, 21(1), 139 – 150 11. Padmanabhan, G. & Katti D. (2002). Using Community-Based Projects in Civil Engineering Capstone Courses. <i>Journal of Professional Issues in Engineering Education and Practice</i>, 128, 12 – 18	