

SYLLABUSES FOR THE DEGREE OF BACHELOR OF SCIENCE IN SURVEYING (BSc[Surv])

The syllabuses are applicable to candidates who are admitted to the Bachelor of Science in Surveying curriculum in the 2021-22 academic year and thereafter.

Candidates admitted in 2021-22 (2021 intake) and thereafter will take a professional core of 180 credits including 168 credits of core courses and 12 credits of Faculty Interdisciplinary courses, plus 54 credits in languages and Common Core courses, and 6 credits of free electives, totalling 240 credits for the 4-year curriculum.

The syllabuses of the Bachelor of Science in Surveying shall comprise the following requirements:

University Requirements

54 credits of compulsory University requirements which must be completed successfully:

- (i) One 6-credit course in Core University English¹; one 6-credit course in English language enhancement; and one 6-credit course in Chinese language enhancement² (18 credits)
- (ii) 36 credits of courses in the Common Core Curriculum, comprising at least one and not more than two courses from each Area of Inquiry with not more than 24 credits of courses being selected within one academic year except where candidates are required to make up for failed credits (36 credits)

Faculty Requirements

12 credits of compulsory Faculty Interdisciplinary courses which must be completed successfully:

Two 6-credit Faculty Interdisciplinary courses including AFIC1001 Get Inspired; and AFIC1002 Reaching Out	12 credits
---	------------

Core Courses of Surveying

The 168 credits of core course of the Bachelor of Science in Surveying curriculum has six

¹ Candidates who have achieved Level 5 or above in English Language in the Hong Kong Diploma of Secondary Education Examination, or equivalent, are exempted from this requirement, and Core University English is optional. Those who do not take this course should take an elective course in lieu, see UG6 of the Regulations for First Degree Curricula.

² Students are required to successfully complete the 6-credit Faculty-specific Chinese language enhancement course, except for:

- (a) Putonghua-speaking students who should take CUND9002 (Practical Chinese and Hong Kong Society) or CUND9003 (Cantonese for Non-Cantonese Speaking Students); and
- (b) students who have not studied Chinese language during their secondary education or who have not attained the requisite level of competence in the Chinese language to take the Chinese language enhancement course should write to the Board of the Faculty to apply to be exempted from the Chinese language requirements, and (i) to take a 6-credit Cantonese or Putonghua language course offered by the School of Chinese especially for international and exchange students; OR (ii) to take an elective course in lieu.

subject categories which are taught using distinct learning modes.

Most courses are 6-credit courses, with the exception of the course Research Methods and Dissertation-2 which is 18 credits. The majority of courses are classified into:

- (i) Management
- (ii) Law
- (iii) Economics
- (iv) Technology and Innovation
- (v) Conservation
- (vi) Research subject categories

These different aspects are then interwoven in the Studio courses to allow for knowledge and skills learnt in each course to be related directly to concurrent project work in the studio courses, and to allow a more specific and structured approach to student learning.

Course Offerings for Minor in Conservation

The 36-credit Minor in Conservation is open to students of other degree curricula and comprises the following courses:

RECO2035 Building Technology	(6 credits)
RECO2038 Development and Conservation Analysis	(6 credits)
RECO2041 Introduction to Information Technology for Urban Development	(6 credits)
RECO2043 Advanced Building Technology	(6 credits)
RECO3042 International Experiences in Urban Development	(6 credits)
RECO3043 Advanced Conservation Planning	(6 credits)

Students of other degree programmes intending to take the Minor in Conservation must complete all the courses listed above. Please note that there are 6 places available per course per year for students taking the Minor option.

Double counting of credits is not permissible for the Minor in Conservation. When a course is used to satisfy the requirements of another curriculum or programme, it shall not be counted towards the fulfilment of requirements for this Minor. You must take a replacement course in lieu.

Course Structure

Course Types/ Subject Areas Courses	Core Courses (168 credits)								FICs (12 credits)	Languages & CCCs (54 credits)	Free Elective (6 credits)
	Studio	Management	Law	Economics	Technology & Innovation	Conservation	Research	Professional Practice & Int'l Experience			
Year 1 (60 credits)											
RECO1018 Studio 1 - Understanding Land Conversion Process	6										
RECO1019 Studio 2 - Land and Real Estate Markets	6										
AFIC1001 Get Inspired									6		
AFIC1002 Reaching Out									6		
4 Common Core Courses (6 credits each)										24	
Core University English										6	
Chinese Language Enhancement Course										6	
Year 2 (60 credits)											
RECO2035 Building Technology					6						
RECO2036 Studio 3 - Development Issues	6										
RECO2037 Studio 4 - Construction and Project Management	6										
RECO2038 Development and Conservation Analysis						6					
RECO2039 Urban and Land Economics				6							
RECO2040 Construction Project Management 1		6									
RECO2041 Introduction to Information Technology for Urban Development					6						
RECO2042 Introduction to Law			6								
RECO2043 Advanced Building Technology					6						
English Language Enhancement Course										6	

Course Structure (Continued)

Course Types/ Subject Areas Courses	Core Courses (168 credits)								FICs (12 credits)	Languages & CCCs (54 credits)	Free Elective (6 credits)
	Studio	Management	Law	Economics	Technology & Innovation	Conservation	Research	Professional Practice & Int'l Experience			
Year 3 (60 credits)											
RECO3036 Studio 5 - Adaptive Reuse and Facilities Management	6										
RECO3037 Land Law and Conveyancing Law			6								
RECO3038 Real Estate Investment and Finance				6							
RECO3039 Research Methods and Dissertation-1							6				
RECO3040 Corporate Real Estate Asset Management		6									
RECO3041 Professional Practice								6			
RECO3042 International Experiences in Urban Development								6			
RECO3043 Advanced Conservation Planning						6					
Free Elective											6
Common Core Course										6	
Year 4 (60 credits)											
RECO4011 Research Methods and Dissertation-2	6						18				
RECO4012 Studio 6 - Smart and Sustainable Urban Development											
RECO4013 Economics of Property Rights in Urban Development				6							
RECO4014 Advanced Valuation				6							
RECO4015 Construction Project Management 2		6									
RECO4016 Construction Law			6								
RECO4017 Health, Safety and Environmental Management		6									
Common Core Course										6	

Note: FICs - Faculty Interdisciplinary courses; CCCs – Common Core Courses

Course Description

Year 1

RECO1018 Studio 1 – Understanding Land Conversion Process (6 credits)

This is an elementary introduction to the general aspects of land development (including conservation) in Hong Kong. The essence is “facts-finding” for First Year students to understand the basic picture of what constitute urban (the whole land conversion process) development in Hong Kong via a studio-teaching and problem-based learning mechanism. In addition to land acquisition, planning, construction, real estate investment and management, the conservation process is also explored, including the identification of heritage values and character-defining elements as well as the various conservation treatments. Ethical issues in the development sector are also covered. This serves as a foundation for students to study more advanced and academic courses in Years Two to Four.

Assessment: 100% continuous coursework assessment

RECO1019 Studio 2 – Land and Real Estate Markets (6 credits)

This course is structured to develop students’ ability to solve authentic problems related to land and real estate markets in a particular district, through applying acquired knowledge related to land use pattern, property market, demand and supply analyses, and so on. Students will work in small teams for collaborative learning and problem solving.

Assessment: 100% continuous coursework assessment

AFIC1001 Get Inspired (6 credits)

Get Inspired is a broad-based survey about the built environment disciplines, exposing students to the broad theories, methods and key questions of the various disciplines within the Faculty of Architecture, and examining how each has sought to address the chronic challenges of public health in the city.

Assessment: 100% continuous coursework assessment

AFIC1002 Reaching Out (6 credits)

Reaching Out will challenge students to work in mixed disciplinary groups to explore the nature and value of the research work of the Faculty’s research labs, and to develop a group project that takes knowledge and practices generated by one of the labs and to investigate how it has been applied to a specific site.

Assessment: 100% continuous coursework assessment

CAES1000 Core University English (6 credits) (Certified Communication-intensive Course³ [CiC])

The Core University English (CUE) course aims to enhance first-year students' academic English language proficiency in the university context. CUE focuses on developing students' academic English language skills for the Common Core Curriculum. These include the language skills needed to understand and produce spoken and written academic texts, express academic ideas and concepts clearly and in a well-structured manner and search for and use academic sources of information in their writing and speaking. Four online-learning modules through the Moodle platform on academic speaking, academic grammar, academic vocabulary, citation and referencing skills and avoiding plagiarism will be offered to students to support their English learning. This course will help students to participate more effectively in their first-year university studies in English, thereby enriching their first-year experience.

Assessment: 100% continuous coursework assessment

CEUC9001 Practical Chinese for Surveying, Urban Studies, and Conservation Students (6 credits)

The main objective of this course is to enhance the students' command of Chinese for the construction and surveying profession through basic training in presentation skills and in specific techniques for the preparation of target-oriented letters, proposals, plans and reports. This course also aims to develop students' ability to engage in negotiations, debates as well as critical and creative thinking. In order to promote artistic and aesthetic appreciation, thematic lectures and topical workshops on Chinese calligraphic and artistic representations will be conducted. Site visits to traditional Chinese temples, gardens and museums will be organized to provide students with opportunities to gain hands-on experiences of the inner dynamics of Chinese culture. Students will be able to acquire sophisticated Chinese language skills and knowledge of Chinese culture within the context of the discipline of construction and surveying.

1. Demonstrate ability in using effective spoken and written language skills required for daily life communication, surveying & architecture related professions and academic studies. Reflect on their language learning experience and devise strategies for further improvement
2. Have in-depth oral presentation, discussion and debating skills.
3. Have an overall understanding between language and cultural concepts.
4. Have a better awareness and sensitivity toward language usage, critical thinking and aesthetic quality.

Assessment: 50% continuous coursework assessment and 50% examination

4 Common Core courses (6 credits each)

³ A certified Communication-intensive (CI) Course which meets all of the requirement endorsed by the Senate, including
(i) the teaching and assessment of oral, written and visual communication 'literacies', and
(ii) at least 40% of the course grade assigned to communication-rich assessment tasks.

Please refer to the respective syllabuses statements on the programme website for the details.

Year 2

RECO2035 Building Technology (6 credits)

This course provides the fundamental knowledge and concepts for functional design and construction of buildings. The aim of the course is to help students to explain why the building stands up, identify the function of essential elements and components of buildings, including the materials used and their installation methods. Structural concepts, the processes and techniques of constructing simple buildings will also be covered.

Students will learn how to read and interpret different types of drawings and sketches, and create typical drawings and models using modern tools.

Assessment: 40% continuous coursework assessment and 60% examination

RECO2036 Studio 3 – Development Issues (6 credits)

This course is structured to develop students' ability to solve authentic problems related to development issues at the inception stage of a project, through applying acquired knowledge related to development procedures, planning applications, site development, and so on. Students will work in small teams for collaborative learning and problem solving.

Assessment: 100% continuous coursework assessment

RECO2037 Studio 4 – Construction and Project Management (6 credits)

This course is structured to develop students' ability to solve authentic problems related to managing construction projects, through applying acquired knowledge related to procurement, tendering, construction technology, project management, and so on. Students will work in small teams for collaborative learning and problem solving.

Assessment: 100% continuous coursework assessment

RECO2038 Development and Conservation Analysis (6 credits)

This course addresses the planning and analytical issues related to development and conservation in Hong Kong. It first covers the general development aspects, including the real estate cycle; land and property development processes; land supply and urban land policies; market and housing market analyses; development and property appraisals; and post development analysis.

It also provides the knowledge on the fundamental concepts on land tenure system, planning control system, development control system, and conservation systems in Hong Kong. Such knowledge is of the utmost significance to allow students to understand the creation and evolution of our built environment in relation to the historical and social context of our city. Issues related to development, change of use, redevelopment, conservation, end of building life cycle, and the application and approval procedures thereof will be discussed using real-life case studies in Hong Kong and overseas.

The course also introduces the concepts on sustainable development, construction process, contract procurement and facility management.

Assessment: 100% continuous coursework assessment

RECO2039 Urban and Land Economics (6 credits)

This course will include the fundamental theories of urban and land economics: urbanization and economic growth; agglomeration and network economies; path dependence; urban land markets; land use models; spatial equilibrium model; land development cycles; land value and property value; government policy controls; and external shocks to land markets. In addition, this course will introduce the application of agent-based models to simulate land use outcomes based on the principles of aforementioned theories.

Assessment: 100% continuous coursework assessment

RECO2040 Construction Project Management 1 (6 credits)

This module introduces project management theories and project procurement methods with a particular focus on real estate developments. Principles of pre-contract administration are presented and issues related to cost planning, estimation and value management are highlighted.

Assessment: 100% continuous coursework assessment

RECO2041 Introduction to Information Technology for Urban Development (6 credits)

This course introduces the basic principles, terminologies, tools, and the latest trends in Information Technology (IT) for digitalized urban development. This course equips participants with IT knowledge and skills on the values of systematic extraction, management, and exchanges of construction project information throughout the stages of urban development.

Assessment: 100% continuous coursework assessment

RECO2042 Introduction to Law (6 credits)

Legal framework of the HKSAR - the Basic Law and the HKSAR legal system; elements of the law of contract and tort; introduction to intellectual property rights and elementary public law.

Assessment: 20% continuous coursework assessment and 80% examination

RECO2043 Advanced Building Technology (6 credits)

The course provides theoretical knowledge and concepts for the functional design and construction of complex buildings. Topics cover processes and techniques for the construction of buildings, appreciation of structural systems for high-rise buildings, inspection and maintenance of building, performance of materials and components, sustainable construction and common civil engineering construction.

Assessment: 40% continuous coursework assessment and 60% examination

CAES9121 Communication Course for Architecture Students (Certified CiC) (6 credits)

This English-in-the-Discipline course is designed to help students to respond effectively to the communication demands of their studio programmes and their future careers. The focus is on raising students' awareness of the genre of professional discourse by providing them with opportunities to enhance their linguistic range in their approach to architectural, cultural, real-estate & built environment literacy.

Activities are organised through engagement in project-based discussion and written tasks designed to simulate the English Language demands on Architectural, Surveying and Built Environment professionals.

The out-of-class learning component of the course will supplement the main aims by consolidating use of vocabulary related to architectural, real estate & built environment and further enhancing students' writing. Students will also become familiar with self-evaluation and with resources they can access to take responsibility to improve their own language skills in future.

Assessment: 100% continuous coursework assessment

Year 3**RECO 3036 Studio 5 – Adaptive Reuse and Facilities Management (6 credits)**

This course is structured to develop students' ability to solve authentic problems related to adaptive reuse and maintenance of existing buildings, through applying acquired knowledge related to building appraisal, facilities management, operation and maintenance, conservation management plan, and so on. Students will work in small teams for collaborative learning and problem solving.

Assessment: 100% continuous coursework assessment

RECO3037 Land Law and Conveyancing Law (6 credits)

Land tenure in the HKSAR; co-ownership; mortgages; easements; covenants; leases; landlord and tenant; adverse possession; deed of mutual covenant and the management of multi-storey buildings; the land registration system; Conveyancing law.

Assessment: 20% continuous coursework assessment and 80% examination

RECO3038 Real Estate Investment and Finance (6 credits)

This course introduces the commercial real estate market, presents financial economic principles, concepts, and tools for the analysis of real estate from an investment perspective, and extends such analysis to examine leverage and equity securitization.

Assessment: 100% continuous coursework assessment

Prerequisite: RECO2039 Urban and Land Economics

RECO3039 Research Methods and Dissertation - 1 (6 credits)

This course introduces various methodologies and the latest development in studies related to the different aspects of real estate and construction research. It also prepares students for their final year dissertations. It aims to train students to think rationally and logically in conducting academic research and to be equipped with the ability to formulate a dissertation proposal. Techniques in literature search, qualitative and quantitative approaches, tests of hypotheses, data analysis, and dissemination of results are also introduced.

Assessment: 100% continuous coursework assessment

RECO3040 Corporate Real Estate Asset Management (6 credits)

This course examines the fundamental knowledge and theories of corporate real estate asset management. The roles of a corporate real estate asset manager across operational (individual properties), tactical and strategic (organisations' portfolio) levels are introduced. Topics to be covered include, but are not limited to, corporate real estate asset management, facilities management, and property management.

Assessment: 50% continuous coursework assessment and 50% examination

Prerequisite: RECO2040 Construction Project Management 1

RECO3041 Professional Practice (6 credits)

The aim of this module is to build on academic modules in a practical environment so as to increase maturity and motivation by learning as a member of a professional team in the real estate, construction and conservation fields and handling real life real estate and construction as well as adaptive reuse projects. This also allows tacit and professional knowledge in the field to be conveyed to the students in a more personal and efficient way. On the other hand, it provides a platform for our students to demonstrate advanced academic knowledge learned in different modules to be applied in practice.

Seasoned professionals from the industry in the field of real estate, general practice surveying, quantity surveying / commercial management, building surveying, planning and development as well as property and facility management will be invited to deliver in-depth knowledge exchange with the students in the Professional Competency Workshop (PCW) series. Such PCW series will span over a period of 10 weeks and the mark forms 30% of the overall mark for this course.

Assessment: 100% continuous coursework assessment

RECO3042 International Experiences in Urban Development (6 credits)

Real estate education therefore is more often seen as a multi-disciplinary subject, all of which need the teaching team to constantly create a learning environment that will stimulate students to think more laterally. However, this situation is beginning to change as globalisation tends to draw markets closer and closer as corporations are all diversifying internationally in their portfolios. Given there is a growing demand for undergraduate programmes to be able to equip students with a more global view and to become versatile culturally, this course will introduce urban development experiences in other major global cities. It also includes the discussion on the major building typologies that have been

developed throughout Hong Kong's urban history. It focuses on the relationship between the design of building types and the complex of societal factors that have influenced the design.

Assessment: 100% continuous coursework assessment

RECO3043 Advanced Conservation Planning (6 credits)

Everyday involves planning, so is the conservation of a heritage place. The course helps students to translate the understanding of character-defining elements of a heritage place and assessment of its cultural heritage values into appropriate management strategies for its best conservation, through the tools of cultural mapping, conservation policies, conservation management plan and heritage impact assessment. It introduces students to both local and overseas conservation planning tools and strategies that are essential for proper management of a site with cultural heritage significance. Conservation charters/principles/guidance that are internationally recognized for the management of architectural heritage will act as both the theoretical framework and practical assessment standards. A comparative learning approach is adopted to investigate the differences of conservation strategies in Hong Kong, Mainland China and Overseas in relation to the cultural and legal context.

Assessment: 100% continuous coursework assessment

Common Core course (6 credits)

Free elective (6 credits)

Final Year

RECO4011 Research Methods and Dissertation-2 (18 credits) (Capstone Experience)

A dissertation is a detailed discourse on a research topic in the area of development and conservation chosen by the student, to be executed following scientific methodology principles as taught in Research Methods and Dissertation-1. It aims to train students to think scientifically, and to carry out and complete an entire research project on their own, under a dissertation supervisor. Students are expected to identify and define a problem for scientific research; substantiate the research problem, and as appropriate, propose testable hypotheses with appropriate methodology and data; collect empirical data to test the proposed hypotheses and explain the regularities in the data collected; and carry out further research to widen and deepen the analysis.

Assessment: 100% continuous coursework assessment (20% by an interim progress report and 80% by the final dissertation submitted)

Prerequisite: RECO3039 Research Methods and Dissertation-1

RECO4012 Studio 6 – Smart and Sustainable Urban Development (Capstone Experience) (6 credits)

For this Studio programme, students are required to formulate their own study area based on brief hypothetical scenarios given. Emphasis is on issues related to the broad concepts of

smart and sustainability in a global context and its relation to their own study area to tackle a contemporary societal problem. Students will work in small teams for collaborative learning and problem solving.

Assessment: 100% continuous coursework assessment

RECO4013 Economics of Property Rights in Urban Development (6 credits)

Basic concepts of economic growth and development; general concepts of property rights as foundation for understanding the economy and government policies on land use; concepts of market failure in the development market and industry and their Coasian transaction cost reinterpretation in the light of sustainable development driven by innovations in property development; and neo-institutional analysis of issues in development economics applied to spatial analysis.

Assessment: 50% continuous coursework assessment and 50% examination

RECO4014 Advanced Valuation (6 credits)

The concept of value in different contexts and for different valuation purposes. Statutory valuation – purposes and methods. Advanced valuation for real estate investment and development. The relationships between the real estate market and other asset markets. Asset pricing models. Real estate investment portfolio management – theory, institutions and constraints.

Assessment: 40% continuous coursework assessment and 60% examination

Prerequisite: RECO3038 Real Estate Investment and Finance

RECO4015 Construction Project Management 2 (6 credits)

Based on the pre-contract administration and broader project management principles and theories taught in Year 2, this module further develops students' knowledge and skills in terms of post-contract administration and construction management practices. In particular, it introduces practical applications of the commercial management of construction contracts/projects. It also covers principles of professional surveying practices and the related ethical issues.

Assessment: 50% continuous coursework assessment and 50% examination

Prerequisite: RECO2040 Construction Project Management 1

RECO4016 Construction Law (6 credits)

Business associations and entities; forms of construction contract – standard forms; professional liabilities; interim payment and set-off; pay when paid clause; variations; liquidated damages; extension of time; determination of contract; defects liabilities; insolvency; dispute resolution; conflict avoidance.

Assessment: 20% continuous coursework assessment and 80% examination

RECO4017 Health, Safety and Environmental Management (6 credits)

This course first covers regulatory and contractual requirements on health, safety and environmental (HSE) management throughout the development life cycle. Then, HSE implementations at design, construction, and post-construction stages are introduced. Topics to be covered include, but not limited to, design for safety and health, construction safety and health, construction environment management, building services for safety and health, climate, sick buildings and green buildings, ventilation and air conditioning, lighting, sound and insulation, noise control, architectural acoustics, etc.

Assessment: 40% continuous coursework assessment and 60% examination

Common Core Course (6 credits)
