AR27/822 (amended)

SYLLABUSES FOR THE DEGREE OF
BACHELOR OF ARTS IN ARCHITECTURAL STUDIES
[BA(ArchStud)]

These syllabuses are applicable to candidates admitted to the Bachelor of Arts in Architectural Studies curriculum in the 2019-20, 2020-21, and 2021-22 academic years.

Candidates admitted in 2019-20 (2019 intake) are required to take a professional core of 186 credits (including 162 credits of core courses, 12 credits of Faculty Foundation courses and 12 credits of disciplinary elective courses), plus a total of 54 credits in language and Common Core courses, totalling 240 credits for the 4-year curriculum.

Candidates admitted in 2020-21 (2020 intake) and 2021-22 (2021 intake) are required to take a professional core of 186 credits (including 162 credits of core courses, 12 credits of Faculty Interdisciplinary courses and 12 credits of disciplinary elective courses), plus a total of 54 credits in language and Common Core courses, totalling 240 credits for the 4-year curriculum.

Successful completion of any other non-credit bearing courses as required by the University forms part of the graduation requirements.

The syllabuses of the Bachelor of Arts in Architectural Studies 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 English[1]; one 6-credit course in English language enhancement; and one 6-credit course in Chinese language enhancement[2] (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

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[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) take a 6-credit Cantonese or Putonghua language course offered by the School of Chinese especially for international and exchange students; OR (ii) take an elective course in lieu.

Candidates admitted in 2019-20 are required to take 12 credits of compulsory Faculty Foundation courses which must be completed successfully.

Candidates admitted in 2020-21 and thereafter are required to take 12 credits of compulsory Faculty Interdisciplinary courses (FICs) which must be completed successfully:

The FICs are a year-long initiative aimed at first-year undergraduate students of the Faculty of Architecture. *AFIC1001 Get Inspired* is offered in the First Semester and *AFIC1002 Reaching Out* in the Second Semester.

Both courses are structured around collaborative thinking and offer a trans-disciplinary approach to learning. Designed and taught by teachers spanning all five departments, the FICs allow students to gain deep insights of faculty members' teaching and research work, including HKUrbanLabs, and to engage with peers outside of their own discipline through course workshops, research projects and group-activities.

The courses offer a multi-disciplinary perspective of the built environment. Through collaborative projects, students will learn to become innovative team-players, and be equipped with creative problem-solving and communication skills. In addition, students will sharpen their awareness of the increasing inter-disciplinary nature of practice within the built environment and broaden their understanding of their responsibilities within an increasingly complex world. The goal is to develop shared interests and appreciation that help to form long-lasting, cross-disciplinary friendships for students' future careers.

Professional Core of Architectural Studies

The Architectural Studies curriculum has five types of courses which are taught using distinct learning modes. These are: Design Studios, Architectural History and Theory, Technology, Visual Communications and Disciplinary Elective courses.

Apart from Design 1 and 2 which are 6 credits all other design studio courses are 12 credits. All other courses are 6 credit courses. All Design Studios and the majority of Architectural History and Theory, Technology, and Visual Communication courses are offered in two parts with Part I running in the first semester and Part II running in the second semester of a single academic year. This split is designed so that the knowledge and skills learnt in each course can be directly related to concurrent project work in the Design Studio course, to allow a more specific and structured approach to student learning.

The Design Studio, Architectural History and Theory, Technology, and Visual Communication courses are assessed through 100% continuous coursework assessment.

Architectural Design Studio courses
(6 credits requiring approximately 180 hours of student learning activities per course, otherwise 12 credits requiring approximately 360 hours of student learning activities per course)

Each of the studio courses is a semester course.

These courses engage students, under staff guidance and supervision, through a range of problem-based design exercises addressing core and related issues essential to the training of an architect. The studio projects provide opportunities to apply key architecture theories and concepts learned in concurrent courses.

Teaching is conducted in lectures / workshops / review sessions (24-36 contact hours for a 6-credit course and 96 contact hours for a 12-credit course), and involves working on projects in both group and individual formats. Work is regularly presented and discussed in critical review sessions. Site visits, data research and practical workshops are required. The courses are assessed on the portfolio of project work produced, as well as contributions to discussions and activities in the studio sessions. For both 6-credit and 12-credit courses, assessment is 100% continuous coursework assessment of an architecture project represented in drawings, diagrams, photos, renderings, animations, physical models, prototypes and project presentation.

Architectural History and Theory courses
(6 credits requiring approximately 120-180 hours of student learning activities per course)

Collectively these courses examine the theories and practice of architecture through a comparative study of the history of architectural design and urbanism, in various geographic and cultural contexts. Teaching is conducted in lectures / workshop / review sessions (24-36 contact hours per course), and the course work includes reading of critical texts, site visits, research, case studies and the preparation of assignments, essays and reports. Work is regularly presented and discussed in critical review sessions. The courses are assessed through 100% continuous coursework assessment. Continuous assessment is usually by various methods including PowerPoint presentation, reports (up to 10,000 words), short essays (1,500 – 2,000 words), quizzes, projects and/or sketch books.

Technology courses
(6 credits requiring approximately 120-180 hours of student learning activities per course)

These courses explore issues of materials, construction, structures and environment as they relate to the built environment. Particular emphasis is placed upon overarching concepts of environmental sustainability and ecological design in all courses. The curriculum examines state-of-the-art "high" technology in combination with comparative studies of vernacular "low" technological practices of construction. Students are equipped with a global understanding of divergent technological practices

found in numerous regionally specific conditions. The courses establish key technical concepts and knowledge that underpin students' architectural design work. Much of the course relates to projects undertaken in the design studios. Teaching is conducted in lectures / workshops / review sessions (24-36 contact hours per course), and activities include site visits, case studies, practical demonstrations, detailed design exercises and the preparation of assignments and reports. The courses are assessed through 100% continuous coursework assessment. Continuous assessment is usually by various methods including homework, group work, quizzes, group projects, assignments, integrated coursework, presentation, and individual study. The usual output mainly comprises annotated diagrams and short written descriptions (up to a total of 5,000 words for the whole course).

Visual Communication courses
(6 credits requiring approximately 120-180 hours of student learning activities per course)

These courses introduce students to the essential tools of design communication, and teach the fundamentals of graphic design as a means to describe space visually. Students learn freehand drawing, computer aided drafting, physical model building and 3D computer modelling. They investigate approaches and techniques to manage, manipulate, and envision information, using various computer software to link photography, drawing, and other media.

Teaching is conducted in lectures / workshops / review sessions (24-36 contact hours per course), and activities include case studies, practical exercises, demonstrations, and the preparation of assignments and reports. The courses are assessed through submitted course work. Assessment is 100% continuous coursework assessment of drawings, diagrams, photos, renderings, animations, physical models, prototypes and project presentation (up to 5,000 words for the whole course).

Disciplinary Electives
(6 credits requiring approximately 120-180 hours of student learning activities per course)

These disciplinary electives are courses offered by the professional core to fulfil the curriculum requirements as specified in the syllabuses of the BA(ArchStud) degree curriculum.

Each 6-credit elective course requires approximately 120-180 hours of student learning activities in one semester. Elective courses are assessed through a variety of modes including class presentations, case studies, reading analysis, written assignments, research papers, visual projects, and integrated coursework. Approximately 36 contact hours of instruction are required in order to achieve stated learning outcomes within the curriculum. Students shall be guided in selecting these courses. The courses are assessed through 100% continuous coursework assessment. The total written output varies among different courses (up to 5,000 words).

Disciplinary electives offer students the opportunity to gain advanced knowledge in a chosen area of study. There are five categories of elective courses available for selection by candidates:

I: History and Theory
II: Urbanisation and Habitation
III: Technology and Sustainability
IV: Digital Media and Fabrication
V: Practice and Management

Not only will students receive specialized knowledge through lectures, they will also acquire knowledge through research methodologies, as well as interactive learning and active engagement. The themes of these courses will cover contemporary and emergent issues. Students are required to take two elective courses, one in each semester, from two different categories.

These disciplinary electives may be taken in either the first or the second semester in the final year, or as an optional summer semester in the third year of study.

It should be noted that not all courses would be offered every year and that new course(s) may be introduced in any year.

CATEGORY I: HISTORY AND THEORY

ARCH7118 Buddhism, Architecture and Buddhist Architecture (6 credits)
ARCH7119 Politics of / Space / of Performance (6 credits)
ARCH7124 Utopian Architecture and the French Revolution (6 credits)
ARCH7160 The Modern Movement and Beyond (6 credits)
ARCH7161 Vernacular Architecture of Asia (6 credits)
ARCH7162 Architecture and Memory (6 credits)
ARCH7163 Architectural Histories (6 credits)
ARCH7164 ReBuilding Utopia: Visions of Architecture in the Post-war World (6 credits)
ARCH7165 Modern Architecture and the Visual Realm (6 credits)
ARCH7166 Research Seminar in Visual Cultures (6 credits)
ARCH7167 Topics in Modernism (6 credits)
ARCH7175 Architectural Studies Field Workshop (6 credits)
ARCH7177 Critical Readings in Modernism (6 credits)
ARCH7179 Architects and Politics: Exhibiting Politics (6 credits)
ARCH7180 Topics in Architectural History and Theory (6 credits) (cross-listed under Category III: Technology and Sustainability)
ARCH7183 Topics in Architectural History, Theory and Criticism (6 credits)
ARCH7184 Beyond the Border: Early Modernist Chinese Architects in the South (6 credits)
ARCH7269 Architecture and the City (6 credits) (cross-listed under Category II: Urbanisation and Habitation)
ARCH7380 Republic of Excess: Korea and Contradiction (6 credits)
ARCH7401 Real Utopias (6 credits) (cross-listed under Category II: Urbanisation and Habitation)
ARCH7404 Japan, Architecture, Myth: Unmaking Its Form and Content (6 credits)

ARCH7406 Architects and Their Chairs (6 credits) (cross-listed under Category IV: Digital Media and Fabrication)

CATEGORY II: URBANISATION AND HABITATION

ARCH7260 Housing in Urban Development (6 credits)
ARCH7264 Contemporary Urbanism (6 credits)
ARCH7265 Inter Cities (6 credits)
ARCH7266 Globalization and Resistance in Architecture (6 credits)
ARCH7268 Urbanism Field Workshop (6 credits)
ARCH7269 Architecture and the City (6 credits) (cross-listed under Category I: History and Theory)
ARCH7270 The "Navel" of the Earth (6 credits)
ARCH7271 Composed Grounds (6 credits)
ARCH7272 Together: Communes, Collectives, and Communities - Studying Socio Political Ecologies (6 credits)
ARCH7273 Topics in Urban/Rural Studies (6 credits)
ARCH7274 Topics in Urban Studies (6 credits)
ARCH7275 A Visual Diary of Paris: Observe, Read, Collect, Draw, Record (6 credits)
ARCH7276 City Metamorphosis: Urban Residual Space (6 credits)
ARCH7277 Refugee Camp Design (6 credits)
ARCH7278 Open Building in Transition (6 credits)
ARCH7279 Matter, Density and Projection (6 credits)ARCH7401 Real Utopias (6 credits) (cross-listed under Category I: History and Theory)
ARCH7402 Propositions for Planetary Living-II (6 credits)

CATEGORY III: TECHNOLOGY AND SUSTAINABILITY

ARCH7180 Topics in Architectural History and Theory (6 credits) (cross-listed under Category I: History and Theory)
ARCH7355 Designing Care in Commons (6 credits)
ARCH7356 Nordic Latitudes (6 credits)
ARCH7357 Impossible Architecture (6 credits)
ARCH7360 Building Structures and Systems (6 credits)
ARCH7361 Sustainable Building Systems (6 credits)
ARCH7363 Materials, Services and Structure (6 credits)
ARCH7364 Nonspace: Materials, Processes, and Constructions (6 credits)
ARCH7365 Design Research on Architecture and the Environment (6 credits)
ARCH7375 Design after Nature (6 credits)
ARCH7376 Inhabitable Territories (6 credits)
ARCH7377 Concrete Approximations (6 credits)
ARCH7378 Topics in Architectural Technologies (6 credits)
ARCH7379 Performative Envelopes (6 credits)
ARCH7382 Floating Marine Laboratory (6 credits)
ARCH7384 Deep Drawing (6 credits)
ARCH7385 Building in Common (6 credits)
ARCH7403 Material History (6 credits)
ARCH7476 Generative Design in Architecture (6 credits) (cross-listed under Category IV: Digital Media and Fabrication)

CATEGORY IV: DIGITAL MEDIA AND FABRICATION

ARCH7406 Architects and Their Chairs (6 credits) (cross-listed under Category I: History and Theory)
ARCH7460 Computer Graphics for Architects (6 credits)
ARCH7462 Computer-aided Architectural Design Methods (CAAD Methods) (6 credits)
ARCH7466 Parametric Structures (6 credits)
ARCH7467 Making Ways and Ways of Making (6 credits)
ARCH7469 Explorative Architecture Techniques (6 credits)
ARCH7470 Architecture by Nature (6 credits)
ARCH7471 Material Fabrications (6 credits)
ARCH7472 Topics in Advanced Technology (6 credits)
ARCH7474 Structural Research – Gridshells (6 credits)
ARCH7475 Visual Practices (6 credits)
ARCH7476 Generative Design in Architecture (6 credits) (cross-listed under Category III: Technology and Sustainability)
ARCH7477 3D Printed Matter (6 credits)
ARCH7478 Bending Bamboo Rules (6 credits)
ARCH7479 Temporary Site-Specific Installation (6 credits)
ARCH7480 Transfer - Structural Transformations (6 credits)
ARCH7568 Design Practice Field Workshop (6 credits)

CATEGORY V: PRACTICE AND MANAGEMENT

ARCH7405 Research on Participatory Design in Architecture (6 credits)
ARCH7563 Community Building Workshop (6 credits)
ARCH7564 Building Information Modelling in Architectural Practice (6 credits)
ARCH7565 Introduction to Building Information Modelling and Management (6 credits)
ARCH7566 Topics in Practice and Management I (6 credits)
ARCH7567 Topics in Practice and Management II (6 credits)

Course Structure

Course Title	Credits	2019 intake	2020 intake	2021 intake
University Requirements				
CAES1000 Core University English	6	Year 1	Year 1	Year 1
CARC9001 Practical Chinese for Architecture and Landscape Students	6	Year 1	Year 1	Year 1
CAES9121 Communication Course for Architecture Students	6	Year 2	Year 2	Year 2
4 Common Core courses	24	Year 1	Year 1	Year 1
2 Common Core courses	12	Year 2	Year 2	Year 2
Faculty Requirements				
AFFC1027 Introduction to Landscape City	6	Year 1		

Architecture				
AFFC1028 Sustainability and the Built Environment	6	Year 1		
AFIC1001 Get Inspired	6		Year 1	Year 1
AFIC1002 Reaching Out	6		Year 1	Year 1
Architectural Design Studio courses				
ARCH1079 Design 1	6	Year 1	Year 1	Year 1
ARCH1080 Design 2 (Pre-requisite: ARCH1079 Design 1)	6	Year 1	Year 1	Year 1
ARCH2079 Design 3 (Pre-requisite: ARCH1080 Design 2)	12	Year 2	Year 2	Year 2
ARCH2080 Design 4 (Pre-requisite: ARCH2079 Design 3)	12	Year 2	Year 2	Year 2
ARCH3079 Design 5 (Pre-requisite: ARCH2080 Design 4)	12	Year 3	Year 3	Year 3
ARCH3080 Design 6 (Pre-requisite: ARCH3079 Design 5)	12	Year 3	Year 3	Year 3
ARCH4079 Design 7 (Capstone Experience) (Pre-requisite: ARCH3080 Design 6)	12	Year 4	Year 4	Year 4
ARCH4080 Design 8 (Capstone Experience) (Pre-requisite: ARCH4079 Design 7)	12	Year 4	Year 4	Year 4
Architectural History and Theory courses				
ARCH2058 Architectural History and Theory 1 - Modern Architecture	6	Year 3	Year 2	Year 3
ARCH3058 Architectural History and Theory 2 - Global Perspectives I	6	Year 2	Year 3	Year 2
ARCH3062 Architectural History and Theory 3 - Global Perspectives II	6	Year 3	Year 4	Year 3
ARCH4603 Architectural History and Theory 4 - The City	6	Year 4	Year 4	Year 4
ARCH4606 Architectural History and Theory 5 - Contemporary Issues in Architecture	6	Year 4	Year 3	Year 4
Technology courses				
ARCH2056 Building Technology 1 - Building Principles	6	Year 2	Year 2	Year 2
ARCH3064 Building Technology 2 - Building Structures	6	Year 3	Year 3	Year 3
ARCH3065 Building Technology 3 - Building Sustainability	6	Year 3	Year 3	Year 3
ARCH4602 Building Technology 4 - Building Construction and Practice	6	Year 4	Year 4	Year 4
ARCH4605 Building Technology 5 - Building Integration	6	Year 4	Year 4	Year 4
Visual Communication courses				
ARCH2055 Visual Communication 1 – Drawing	6	Year 2	Year 2	Year 2

ARCH3056 Visual Communication 2 - Visual Content	6	Year 3	Year 3	Year 3
ARCH3060 Visual Communication 3 - Animate Systems	6	Year 3	Year 3	Year 3
Disciplinary Electives				
2 Disciplinary Electives[3]	12	Year 3 (summer semester)[3] / Year 4	Year 3 (summer semester)[3] / Year 4	Year 3 (summer semester)[3] / Year 4

Core Course List

ARCH1079 Design 1 (6 credits)
This course serves as an introduction to the skills and concepts that are further developed in the design studio sequence. The focus of the course will be the design process itself, outside of the constraints and complexity of a building programme. In addition the course will include a series of workshop introductions to the tools and techniques of casting, woodworking and hand drawing. The goal of the course is to familiarize students with the principles of creative work.

Assessment: 100% continuous coursework assessment

AFFC1027 Introduction to Landscape City Architecture (6 credits) [For 2019 intake]
This course is an introduction to the understanding of landscapes, cities, and architectures. Students will be exposed to why architecture is an essential necessity for our societies as well as recognising that architecture is both an expression of programme, form and structure as well as the resolution of cultural specificities and practices. We will demonstrate and examine how architecture is presented to the public and how its practice is varied and diverse in different societies. The various geographical, landscape and urban conditions found in Hong Kong will be the playground and the source for learning, describing and debating. In addition to lectures, a series of walks, visits, and exercises will allow the students to express, demonstrate, and challenge the different propositions presented in the class.

Assessment: 100% continuous coursework assessment

AFFC1028 Sustainability and the Built Environment (6 credits) [For 2019 intake]

[3] Students can select one course from a list of disciplinary electives offered in the summer semester. However, if students are not permitted to proceed to Year 4, they will not be eligible to take this course.

The course examines the broad range of issues confronting mankind's search for a sustainable future, such as population and urbanization; transportation and logistics; technology and mobility; water; waste; energy; food; (natural) disasters; and community and governance. Through the perspective of contemporary and historical case studies students explore how people, in their visions of the future, have sought to perfect built environments as the setting for model communities.

The ideas raised in the lectures, reinforced through weekly readings and weekly tutorial sessions, are brought together at the end of the course with an intensive workshop, in which students look to define their own vision of a sustainable community. This course is intended to inspire thinking about the way we should construct our living environments in future, in order to find a sustainable balance.

Assessment: 100% continuous coursework assessment

AFIC1001 Get Inspired (6 credits) [For 2020 & 2021 intakes]

AFIC1001 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) [For 2020 & 2021 intakes]

AFIC1002 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

ARCH1080 Design 2 (6 credits)

This course includes the concept of architectonics, section and plan, and the basic design process involving drawing and model making. The course will culminate in a final design project, supported by lectures on diverse set of figures in architecture, science and art, examining the creative processes that enable their work and understanding it through methodology and execution.

Assessment: 100% continuous coursework assessment

Pre-requisite: ARCH1079 Design 1

CARC9001 Practical Chinese for Architecture and Landscape Students (6 credits)

The main objective of this course is to enhance the students' command of Chinese for

the architecture 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 architecture.

Aims and Objectives

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

Assessment: 50% continuous coursework assessment and 50% examination

CAES1000 Core University English (6 credits)
(Certified Communication-intensive Course [CiC][4])

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

ARCH2079 Design 3 (12 credits)

Design 3 is the first in a two-course sequence forming a comprehensive introduction to the foundation studies of architecture, addressing the core and related issues essential

[4] For candidates admitted in 2020-21 and thereafter:: A certified Communication-intensive Course (CiC) which meets all of the requirements 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.

to the training of an architect. The course aims to teach architectural literacy, to develop critical and analytical skills, to enhance visual, spatial and ideological sensibilities with certain emphasis on the presentation of ideas, concepts, and design both in the visual and verbal format. Field trips form an integral part of the course.

Assessment: 100% continuous coursework assessment

Pre-requisite: ARCH1080 Design 2

ARCH2055 Visual Communication 1 - Drawing (6 credits)

Visual Communication 1 relates the study of architecture to the study of representational forms and methods. Taught through lectures that introduce fundamentals of visual communication including: grid, line, perspective, movement studies, projection, and composition, the course is a preliminary immersion in the culture of visual studies. Visual Communication 1 also provides students with basic skills and techniques (in freehand drawing, 2D and 3D CAD drawing, laser cutting, model making, Illustrator and Photoshop software) which allow the students to experiment with many of the issues and ideas introduced. Students will be responsible for individual projects which exhibit their grasp of the lecture topics. [Note: Software involved will be Photoshop, Illustrator, InDesign and AutoCad]

Assessment: 100% continuous coursework assessment

ARCH2058 Architectural History and Theory 1 - Modern Architecture (6 credits)

This course examines the history of modern architecture, from the late nineteenth century to the end of the 1960s, a tumultuous period marked by conflict, confrontation, social and countercultural movements. Students will explore modern architecture not as a cohesive or isolated product of any formal school of thought but rather as a complex and contradictory history bound by key formal, theoretical, social, cultural, technological, economic, and political moments in time. Throughout the course, students will touch upon three key influences and confluences in the development of modern architecture: the significant material changes brought about by technology and industrialization, received ideas of social progress and cultural change, and the exigencies of colonization, decolonization, and beyond. This course raises major disciplinary questions, issues, and interdisciplinary themes and perspectives that will reverberate throughout the architectural history and theory curriculum. Content covers the genealogies of the modern movement, transnational and intersecting development of architectural modernism in Asia, Africa, Europe, North America, and other places.

Assessment: 100% continuous coursework assessment

ARCH2080 Design 4 (12 credits)

Design 4 is the second in a two-course sequence forming a comprehensive introduction to the foundation studies of architecture, addressing the core and related issues essential to the training of an architect. The course aims to teach architectural literacy, to develop

critical and analytical skills, to enhance visual, spatial and ideological sensibilities with certain emphasis on the presentation of ideas, concepts, and design both in the visual and verbal format. Field trips form an integral part of the course.

Assessment: 100% continuous coursework assessment

Pre-requisite: ARCH2079 Design 3

ARCH2056 Building Technology 1 - Building Principles (6 credits)

This course addresses the elemental aspects of building and the fundamental principles of structure. It will present building structures in masonry, timber, concrete, steel, glass and composite and examine the constructional possibilities and limitations of these materials. Furthermore it will seek a broad based understanding of how material and constructional choices are determined by its physical site, programme, culture, era and environment. The course presents the historical culture of building technology and how material, structural, construction and detail decisions influence the overall architectural project. It will be further demonstrated how the importance of well-articulated geometries and proper means of measurements in drawing and modelling are an essential and integral part of construction methods and processes. The course material will be presented through a series of lectures specific to a material and through analyses of relevant case studies.

Assessment: 100% continuous coursework assessment

CAES9121 Communication Course for Architecture Students (6 credits)
(Certified Communication-intensive Course [CiC][4])

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

ARCH3079 Design 5 (12 credits)

Design 5 is the first in a two-course sequence that focuses on architecture and its context with an emphasis on programme, spatial organization and the use of digital tools to conceptualize and present design ideas. The course aims to develop both an awareness of architecture within an urban context and an ability to develop an architectural language and design process. A study of an existing area will be made paying particular attention to its architectural, social and environmental characteristics. This study, which includes basic site analysis, will form the basis of ensuing design projects, sketch designs and field studies. Field trips form an integral part of the course.

Assessment: 100% continuous coursework assessment

Pre-requisite: ARCH2080 Design 4

ARCH3056 Visual Communication 2 - Visual Content (6 credits)
Visual Communication 2 focuses on producing visual content through digital modelling and the communication among a variety of associated digital tools for drafts, analysis, diagrams and fabrication. Based upon the knowledge in geometry and computational logic, this course will construct a series of digital and physical models alongside the design studio projects including topography models out of the information available to the public domain, parametric massing and envelop models with a high degree of precision, communicative models for visualizing information through different format of the visual content, analytical models for design evaluation feedback, and the production models from a series of computer controlled fabrication devices, including the CNC milling machine, the large-format laser cutter, and a three-dimensional printer.

Assessment: 100% continuous coursework assessment

ARCH3058 Architectural History and Theory 2 - Global Perspectives I (6 credits)
The purpose of this course is two-fold: to introduce students to the development of major architectural ideas and a selected group of significant architectural monuments in Europe, from ancient times to the nineteenth century, and the unique aesthetic, cultural, and historical issues that frame them; and to present the main issues in the study of architecture and the various methods used to analyze and interpret buildings in various spatial and temporal contexts. Lectures and course content will emphasize key themes of cultural, economic, and political interconnectivity and their impact upon architectural production, not only within Europe, but around the world.

Assessment: 100% continuous coursework assessment

ARCH3065 Building Technology 3 - Building Sustainability (6 credits)
This course introduces the ideas of sustainability through the underlying ecological principle of whole systems. Ecological systems by nature are dynamic. Therefore, a critical understanding of the functioning, limitations and requirements of the system are fundamental. Lectures and projects will explore the latent potential of these

different systems (whether natural or artifice) and how they effect and are affected by the built environment.

Assessment: 100% continuous coursework assessment

ARCH3080 Design 6 (12 credits)

Design 6 is the second in a two-course sequence that focuses on architecture and its context with an emphasis on programme, spatial organization and the use of digital tools to conceptualize and present design ideas. The course aims to develop both an awareness of architecture within an urban context and an ability to develop an architectural language and design process. A study of an existing area will be made paying particular attention to its architectural, social and environmental characteristics. This study, which includes basic site analysis, will form the basis of ensuing design projects, sketch designs and field studies. Field trips form an integral part of the course.

Assessment: 100% continuous coursework assessment

Pre-requisite: ARCH3079 Design 5

ARCH3060 Visual Communication 3 - Animate Systems (6 credits)

Visual Communication 3 examines techniques associated with forming narratives in architecture. Beginning with modelling complex spaces, the focus will be on producing images and presentation line drawings. The course will introduce the concept of digital analysis for environmental and structural systems. The final project consists of an animated series of drawings which will utilize motion studies as a tool of design and discourse. [Note: Software involved will be Rhino, Grasshopper, Vray, Keyshot, Ecotect, Photoshop, and Illustrator]

Assessment: 100% continuous coursework assessment

ARCH3062 Architectural History and Theory 3 - Global Perspectives II (6 credits)

The purpose of this course is two-fold: to introduce students the development of major architectural ideas and a selected group of significant architectural monuments in East, South, and Southeast Asia, from ancient times to the nineteenth century, and the unique aesthetic, social-cultural, technological and historical issues that frame them; and to present the main issues in the study of architecture and the various methods used to analyze and interpret buildings in various spatial and temporal contexts. Lectures and course content will emphasize key themes of cultural, economic, and political interconnectivity and their impact upon architectural production, not only within Asia, but around the world.

Assessment: 100% continuous coursework assessment

ARCH3064 Building Technology 2 - Building Structures (6 credits)

The course aims provide students with an appreciation and understanding of the behavior of both horizontal spanning as well as vertical structures. The relationships between load carrying mechanisms and various structural and architectural forms will be explored and case studies of significant structures of these types will be discussed and analyzed in relation to architectural planning and design processes. Structural aspects of site investigation, foundations and retaining structures will also discussed within the context of relevant case studies.

Assessment: 100% continuous coursework assessment

ARCH4079 Design 7 (12 credits) (Capstone Experience)
Design 7, a capstone experience in the BAAS programme, is the first in a two-course sequence that places emphasis on the development of a design ability to organize building processes of medium complexity within a social and economic framework and in the environmental context of Hong Kong. The course culminates with an integrated design project and is assessed by an oral examination. Other design projects, measured drawings and sketch designs supplement the main coursework. Field trips form an integral part of the course.

Assessment: 100% continuous coursework assessment

Pre-requisite: ARCH3080 Design 6

ARCH4603 Architectural History and Theory 4 - The City (6 credits)
This course is intended to introduce students to the scholarly study of the city, from ancient Greece to the Shenzhen Special Economic Zone. Understanding the city as a global entity shaped by dynamic and ever-changing cultural, industrial, political and social processes forms a major goal of the course. Each lecture will be devoted to the examination of several key case-studies in coordination with an important concept or methodological concern in the study of the built environment. Recognizing how these processes manifest themselves spatially, and how they impact both architectural and urban form and development over time, constitutes another major course objective. Students will be expected to complete a final research project on a topic related to a city of their own choosing.

Assessment: 100% continuous coursework assessment

ARCH4605 Building Technology 5 Building Integration (6 credits)
Building Integration examines the architecture of integrated building systems. This course introduces methods of integration and procedures for analyzing building systems in relation to specific environmental considerations, architectural design, construction, and building life-cycle operations. Students will study exemplary case studies to understand how they work as integral buildings, what went into their consideration, and what they add to the accumulated knowledge of contemporary architectural practice. Emphasis is placed on understanding how successful integration brings all building components together in a sympathetic way - while reinforcing the

synergy of the whole without sacrificing the integrity of the individual building components. Workshops, site visits, and direct engagement with local expert practitioners will form an essential part of this course. Students shall prepare analytical drawings which explore methods of building integration through appropriate selection, configuration, and combination of architectural technologies within their design studio projects.

Assessment: 100% continuous coursework assessment

ARCH4080 Design 8 (12 credits) (Capstone Experience)

Design 8, a capstone experience in the BAAS programme, is the second in a two-course sequence that places emphasis on the development of a design ability to organize building processes of medium complexity within a social and economic framework and in the environmental context of Hong Kong. The course culminates with an integrated design project and is assessed by an oral examination. Other design projects, measured drawings and sketch designs supplement the main coursework. Field trips form an integral part of the course.

Assessment: 100% continuous coursework assessment

Pre-requisite: ARCH4079 Design 7 (Capstone Experience)

ARCH4602 Building Technology 4 - Building Construction and Practice (6 credits)

This course has its focus on the connection of building technology with architectural design and practices. From the perspective of technology, it covers an overview of historical buildings, modern architecture, sustainability and professional practices such as stages of work, design drawings for contract documentation and control of details through building code. Various design principles as reflected in general conceptual design and detailing are explained with various reference to local and international examples.

Assessment: 100% continuous coursework assessment

ARCH4606 Architectural History and Theory 5 - Contemporary Issues in Architecture (6 credits)

This course examines key discursive issues that impact architecture and the built environment today. Emphasis will be placed on understanding contemporary challenges in architectural practice and theory and their origins vis-à-vis the continuation, diversification, and transformation of the modernist tradition over the course of the last century leading up to the millennium. Major issues to be addressed include the inextricable relationship between architecture and the global-local context, the digital revolution, the conservation of urban and cultural heritage, public housing, sustainability and the impact of the impending energy crisis upon future urban development, and the interconnectedness of architecture and other disciplines.

Multidisciplinary discourses on mass culture, globalization, place-making, identity and post-colonialism will also be introduced.

Assessment: 100% continuous coursework assessment

Disciplinary Elective Courses List

Students can only choose to take the disciplinary elective courses from this approved list.

CATEGORY I: HISTORY AND THEORY

ARCH7118 Buddhism, Architecture and Buddhist Architecture (6 credits)
This course explores the philosophies of Buddhism as applicable to Architecture and various forms of Buddhist Architecture. Students will learn the overview of Buddhist Architecture including the historical origin, meaning and cultural background of different building typologies of Buddhism in various regions including India, Sri Lanka, Han China, Japan and Tibet etc. This is also an introduction to the understanding of Oriental culture where Buddhism is an important basis. The course will cover the basic forms and symbolic meaning of Buddhist Architecture in the Theravada, Mahayana, Vajrayana and Zen schools of Buddhism with reference to the architectural examples in the appropriate regions. The architecture of Buddhism will cover monasteries, rock-hewn caves, stupas, temples as well as the Asoka pillar. The course will explore some important architectural icons such as the four holiest sites in India, Samye monastery in Tibet, Ryoanji Temple, Horyuji and Kenninji Temples in Japan, Famen Temple in China, Borobudur in Indonesia, Cave temples of Dambulla in Sri Lanka etc. Also, the influence of Buddhist philosophy on Modern Architecture will also be explained.

Assessment: 100% continuous coursework assessment

ARCH7119 Politics of / Space / of Performance (6 credits)
The course will be of interest for students interested in discovering intersections between space, politics, architecture and performance. These themes will be developed through a parallel survey: of contemporary thinking about space and the political; and of performative architecture.

The "spatial turn" in the humanities and social sciences has meant that discourses about space have proliferated in diverse disciplines: from geography, sociology, economics and cultural studies. How disciplines outside of architecture take apart and think about space can help inform and situate our own positions. While a deep, disciplinary knowledge of any of the thinkers we will be looking at is not possible, the course objective is to provide students with a framework for further investigation and the capacity to relate ideas to their own architectural project or position.

While "architectural performance" is commonly used to describe how a building responds or behaves in relation to changes in the environment, performative architecture uses elements from theatre, dance, music and the occupation of public

space, for example, to expand architecture's domain. Performative architecture crosses disciplinary and creative boundaries and has been an important part of architecture's repertoire throughout its history.

We will look at contemporary thinking by reading interviews and watching lectures by selected figures and at performative architecture through student presentations of contemporary and modern case studies. Close and active reading, in-class discussion and a critical engagement with all of the material that we have the chance to encounter will be a pre-requisite to successful completion of the course. Students will be encouraged to draw connections to the way readings and case studies relate to studio or thesis work.

Assessment: 100% continuous coursework assessment

ARCH7124 Utopian Architecture and the French Revolution (6 credits)

The French Revolution that occurred from 1789 to 1799 was a historical rupture that shook the foundations of Enlightenment Europe. For many historians and writers, the Revolution and its subsequent Terror signalled the birth of modernity and the rise of the contemporary nation state. Its legacy has been felt globally, as it inspired (or caused resistance to) successive waves of revolution in various geographies that sought to recapture its utopian spirit. We study this utopian ideal through the lens of architecture, beginning with the work of the radical monument-makers of late-eighteenth century France, continuing with the theatrical and dreamlike architecture of the Hegelian Idealists in Germany, and finding ourselves ultimately in the twentieth century, examining the architecture of the Russian revolution and of 1930s Italy. In each case, we will carefully unpick the complex relationship between architecture and ideology, including the moments this uneasy marriage succeeded in its utopian aims, as well as the many accounts of its abject failure.

Assessment: 100% continuous coursework assessment

ARCH7160 The Modern Movement and Beyond (6 credits)

The course is concerned with theoretical aspects of design activities in architecture. It attempts to trace the evolution of spatial concepts significant to the modern movement and beyond. The course consists of two parts: analytical and synthetic. The analytical part is to develop the students' skill for deeper understanding of the complexity of the built form. The synthetic part attempts to follow the vicissitudes of architectural design through the examination of the works of significant architects.

Assessment: 100% continuous coursework assessment

ARCH7161 Vernacular Architecture of Asia (6 credits)
Vernacular built-form is the most obvious and direct means of expression of a people and their culture. Through the examination of different indigenous building types in different parts of Asia, viz. China, Japan, Indonesia, Malaysia and Thailand, students are able to develop a broader sense of understanding of the relationship between architecture, climate and culture.

Assessment: 100% continuous coursework assessment

ARCH7162 Architecture and Memory (6 credits)
This elective course takes a closer look at the art of motion pictures. Through various theoretical lenses, films are used to create new grounds for architectural discussions while enhancing our understanding of existing ones. Therefore, we will explore the productive interplay between cinematic productions and architectural discourses. The aim is to focus attention on works of quality in order to discuss the evolution of motion pictures in the architectural realm.

Driven by a broad range of films, this elective course will focus on particular architectural terms such as mapping, observation, narrative and memory. These terms are known in architectural studies, but rarely discussed through the lenses of various filmmakers, seen not in a static but a procedural mode of engagement. In order to examine these theoretical frames, we will promote the discipline of film making as a potential field of architectural engagement, thus giving students a relevant film repertoire in the course of their architectural studies.

Assessment: 100% continuous coursework assessment

ARCH7163 Architectural Histories (6 credits)
This reading seminar offers an introduction to the historiography of architectural history and its predominant methodologies. Over the course of the semester, and proceeding in a roughly chronological manner, we will examine some of the key texts in architectural history, their authors, and their respective foci upon fundamental questions of structure, style, materials, and the historical origins of architecture itself.

The course's main objective is to teach students how to think critically about how different histories of architecture have been constructed over time in a variety of particular political, social, as well as cultural contexts. Through these texts, students will also learn about the architects, buildings, and ideas that comprise them. More generally, this course provides students with a variety of theoretical and analytical tools necessary to develop a critical and comparative perspective with respect to the reading and writing of architectural history and theory today.

Assessment: 100% continuous coursework assessment

ARCH7164 ReBuilding Utopia: Visions of Architecture in the Post-war World (6 credits)

This course examines the occurrences of the utopian tendency within the production of architecture in the aftermath of World War II – an event of global magnitude that triggered a series of political, social, economic and cultural consequences in its wake. The bipolar struggle that characterized most of the latter half of the 20th century implicated architecture in many ways and at many levels. Amidst postwar reconstruction in Europe and Japan, the continuation of war via the Cold War, widespread decolonization and the territorial divisions of the globe into First, Second and Third Worlds, the rise of America as the dominant superpower, and the internationalization of American popular culture, visions of the future were conceived. Within these post-war contexts and post-colonial realities, the promise of utopia was not simply proclaimed by the avant-gardes. Under the rubric of democracy and modernization, the United Nations, governments of nations, non-governmental organizations, academic institutions and multi-disciplinary groups, took on the task of vision building. At the same time, there emerged those who conceived of counter-utopias and dystopias as responses to the experiences of global homogenization and upheavals occurring at local and regional levels. How was architecture instrumental in forwarding the objectives of the visionaries? How did technologies, methodologies and mindsets find their way into architecture and their corresponding discourses? In what ways did the multiple trajectories of utopia and utopian building inform the history of the discipline as it is understood today? Class discussions are based on assigned readings and individual presentations. Readings are primarily architectural texts but also include definitive texts from other disciplines including cultural studies, geography, sociology, and philosophy that are important in framing pertinent issues or events.

Assessment: 100% continuous coursework assessment

ARCH7165 Modern Architecture and the Visual Realm (6 credits)

The objective of this seminar is to investigate the relationship of modern architectural work and the visual realm. The development of architectural theory, publication and/or detailing which simultaneously accept and deny the perception on modern architecture as a retinal art form will be the subject of discussion and investigation. In-depth analysis conducted on selected modern buildings form the basis of argument for students to develop their own critical thinking towards architectural theory and building appreciations.

Assessment: 100% continuous coursework assessment

ARCH7166 Research Seminar in Visual Cultures (6 credits)

This course is a visual research seminar with a serious interest in self-directed investigation into urgent spatial, social, cultural, political and economic issues in the world of visual culture today. The aim of this seminar course is to provide a theoretical knowledge, independent visual research issues of cultural difference, performativity, visual display, aurality, encounters with audiences and the production of subjectivities.

The seminar with collaborate art institution develop activism towards issues of visual cultures, emphasis will be put on visual research and its production.

Assessment: 100% continuous coursework assessment

ARCH7167 Topics in Modernism (6 credits)
This seminar investigates the multitude of theories and practices made manifest in architectural and urban form over the course of the late 19th and 20th centuries. Building upon the fundamental question of what constitutes modernity, modernization, and modernism, we will situate architecture, urbanism, and the architect within a series of broader epistemologies and theoretical concepts, including the diaspora, cross-cultural interaction, globalization, memory, nationalism, Orientalism, the nature of dissent, regionalism, technology, and the problem of translation. Through intensive reading, in-class discussion, and students' individual research projects, the course will also provide a forum for students to discuss these issues with each other and explore new lines of critical inquiry as they pertain to the nature of design research.

Assessment: 100% continuous coursework assessment

ARCH7175 Architectural Studies Field Workshop (6 credits)
This course is an intensive workshop involving in depth field research in the topic of architectural studies.

Assessment: 100% continuous coursework assessment

ARCH7177 Critical Readings in Modernism (6 credits)
The course takes Walter Benjamin's The Arcades Project as a model for reading urban experience. Through an assemblage of fragmentary notes — from philosophy, journalism, publicity and poetry — Benjamin left behind a record of 19th century Paris and a template for the material history of cities. Students will look closely at The Arcades Project (including sources such as Baudelaire, Bergson, Proust, Corbusier and Giedion), while at the same time compiling a collective reading of contemporary Hong Kong.

Assessment: 100% continuous coursework assessment

ARCH7179 Architects and Politics: Exhibiting Politics (6 credits)
This course will examine architectural exhibitions as an important tool for architects practicing politics, where architecture and politics are considered to be two separated worlds. The research seminar will introduce the internationally recognized exhibition platform from Biennales, World Expo, and other large site-specific cultural events enable to produce for those interested in understanding architecture beside building alone.

Assessment: 100% continuous coursework assessment

ARCH7180 Topics in Architectural History and Theory (6 credits)
(cross-listed under Category III: Technology and Sustainability)
This course gives students the opportunity to further explore specific issues and topics in architectural history and theory. Topics change from year to year based on course contents.

Assessment: 100% continuous coursework assessment

ARCH7183 Topics in Architectural History, Theory and Criticism (6 credits)
This course gives students the opportunity to further explore specific issues and topics in architectural history and theory. Topics change from year to year based on course contents.

Assessment: 100% continuous coursework assessment

ARCH7184 Beyond the Border: Early Modernist Chinese architects in the South (6 credits)
The contemporary city of Hong Kong has been built over the last century by both Architects and Non-architects. As there are criticism on the architectural scene of Hong Kong as monolithic and repetitive, the saying always goes like "there are fantastic urban scenes but no architecture". However, when we begin to look deeper in the cultural roots of modernist architectural development in cities and regions of Southern China [including Shanghai, Hong Kong, Taiwan], there was an early generation of modernist architects educated abroad exploring an independent architecture that spoke for ourselves in context. These attempts were made in respond to our particular cultural preferences, climatic conditions and local materials. By examining these modernist architects who took different perspectives in their interpretation of modernism [e.g. C.K. Chang, Luke Him Sau, Eric Cumine, Wang Da-hong, etc], we can understand how their architecture converges towards a common vision of 'Chinese Modernism'.

Assessment: 100% continuous coursework assessment

ARCH7269 Architecture and the City (6 credits)
(cross-listed under Category II: Urbanisation and Habitation)
This contemporary urbanism seminar will investigate urban spatial production processes through selected case studies of ‘culture-led urban developments’ in the cities of Hong Kong and Singapore. Weekly sessions will thematically introduce the issues of urbanism, from land ownership, public-private partnerships, governance structures, gentrification, etc. that have direct impact on architecture and the built environment in the city. Guest experts from Hong Kong and the region will also give input lectures on selected themes throughout the semester. Students, working in teams, will analyze the case studies using the tools learned in these sessions. Each team will produce a clearly narrated compendium of analytic drawings and diagrams that assesses each of the case studies, which together highlight the comparative analysis built into the duo-city multiple case study.
Assessment: 100% continuous coursework assessment

ARCH7380 Republic of Excess: Korea and Contradiction (6 credits)
There is an on-going proliferation of diverse architectural works taking place in Korea that is distinct from the rest of Asia in terms of evolutionary logic and physiognomy. However, at large, we lack a system of understanding this process of evolution in Korea. This course will examine the origin of the current cultural production in Korea and its relation to the field of architecture, city and history. The philosophical concept of Simulacra: Copies without originals will be the overarching principle behind our attempt to identify and analyze the significance of new and old architecture in Korea. The findings from the course will be shared to engage in further dialogue with Korean counterparts and beyond.

Assessment: 100% continuous coursework assessment

ARCH7401 Real Utopias (6 credits)
(cross-listed under Category II: Urbanisation and Habitation)
In Architecture, urbanism and all disciplines of design, ideas are mainly written, analysed, described and publicised through drawings. Such was the case with the drawings of, Hilberseimer (sectional), as well as Superstudio (3-dimentional speculative collage) and many others... Drawings are processes of understating, informing, speculating and projecting. They are a precise code to what they describe and what they propose. The city has been described through both very speculative (fictional) as well as very definitive (real) drawings throughout centuries. Oswald Matthais Ungers used the capacity of speculative drawings as a unique type of description and projection of the realities of the city and not the city Utopia. This seminar will explore, investigate and cross-examine the modern history of representation of the city and its infrastructures through their projective potentials leading to better realities influencing the social/ political, the cultural and the economic structures of our societies.

Assessment: 100% continuous coursework assessment

ARCH7404 Japan, Architecture, Myth: Unmasking Its Form and Content (6 credits)
Architecture is a part of society: no more, no less. This course will examine how architecture functions as a form of cultural production within society using Japan as a case study. In the process, we will uncover how various cultural components such as history, literature, and architecture work closely together to form a self-conscious construct that facilitates and maintains an idealized collective identity.

Assessment: 100% continuous coursework assessment

ARCH7406 Architects and Their Chairs (6 credits)
(cross-listed under Category IV: Digital Media and Fabrication)

"The chair is a very difficult object... There are endless possibilities and many problems – the chair has to be light, it has to be strong, it has to be comfortable. It is almost easier to build a skyscraper than a chair."
- Mies van der Rohe

The chair materializes the way of living. From a ceremonial object symbolizing power before enlightenment, to a mundane utilitarian object associated with work in the industrial age, and eventually to what represents the contemporary lifestyle and personal identity, the chair provides a sectional view of the modern life. Architects' chairs particularly, charged with ideas also manifested in their houses, are statements of their vision toward domestic living.

Yet such statements are achieved through evolution, not revolution. Looking back at the lineage of Danish tradition in furniture design, whose many components grew out of Chinese Ming chairs, one may be able to understand how a classical form that originated in one culture could be altered and adapted to another. The perspective toward design as an evolutionary process constitutes the methodology of this workshop, believing that innovation is not to break up with history, but accomplished through exhaustive and iterative development from a precedent.

Assessment: 100% continuous coursework assessment

CATEGORY II: URBANISATION AND HABITATION

ARCH7260 Housing in Urban Development (6 credits)

The course investigates the production of housing within the social, political and spatial conditions in urban development. Topics include social and economic determinants of housing location, standards and quality of design; impact on urban development; analysis of housing production including site and infrastructure, provisions; constraints and innovations in the housing industry; and case studies by field trip.

Assessment: 100% continuous coursework assessment

ARCH7264 Contemporary Urbanism (6 credits)

This course integrates urban analysis research and architectural design methodologies to examine relationships between architecture and urbanism through the development of a working understanding of urban and architectural form in the context of the Contemporary City. The course examines the contemporary urban condition through readings of critical theories, analysis of developmental models, as well as empirical investigation of urban sites. In conjunction with physical, historical, social and economic research, alternative design strategies are explored to challenge existing presumptions and models of the contemporary urbanism.

Assessment: 100% continuous coursework assessment

ARCH7265 Inter Cities (6 credits)
Inter Cities will explore transitional areas that are about to undergo significant urban transformation either in terms of massive growth or shrinkage. Usually occupying peripheral territories on the edge of cities these areas display unique characteristics – they are anomalies, estranged and contradictory to normative planning methods. Their condition is patchy and often incoherent mixing landscapes, industrial wastelands, and pockets of residential enclaves. Their governance and control is often contested involving overlapping political and individual desires. As they are emergent they display conditions of urbanism that are un-tested and somehow prototypical providing clues to how the future of our cities may evolve. To this extent Inter Cities are at the forefront of contemporary urbanism. The course will examine the conflicting forces that shape these unique urban landscapes including economy, politics, globalisation, industry, environmental conditions and shifting cultural values. Classes will discuss theoretical texts, examine case study examples, debate key issues and introduce methodological research tools.

Assessment: 100% continuous coursework assessment

ARCH7266 Globalization and Resistance in Architecture (6 credits)
This course aims to examine how the condition of globalization reveals itself in architecture and the urban environment. With an improved understanding of the various forces at play, students are encouraged to think of ways to support a citizenry participation and critique in the making of our buildings and cities in the era of globalization. Paul Ricoeur described a condition of "universal civilization" that encapsulates a scientific spirit and a consumer culture. Today, we are perhaps operating universally under the effects of globalization, aided in no small part by the advent of the information age as well as a more liberal flow of capital and labour. This course will seek architecture as a barometer that measures these effects – appraising specifically the qualities and identities of buildings and districts built or transformed as a result of globalization. Through ten specific readings and building types, the course will examine the co-operative and resistant practices and forms at play.

Assessment: 100% continuous coursework assessment

ARCH7268 Urbanism Field Workshop (6 credits)
This course is an intensive workshop involving in depth field research in the topic of urbanism.

Assessment: 100% continuous coursework assessment

ARCH7269 Architecture and the City (6 credits)
(cross-listed under Category I: History and Theory)
This contemporary urbanism seminar will investigate urban spatial production processes through selected case studies of 'culture-led urban developments' in the cities of Hong Kong and Singapore. Weekly sessions will thematically introduce the issues of urbanism, from land ownership, public-private partnerships, governance

structures, gentrification, etc. that have direct impact on architecture and the built environment in the city. Guest experts from Hong Kong and the region will also give input lectures on selected themes throughout the semester. Students, working in teams, will analyze the case studies using the tools learned in these sessions. Each team will produce a clearly narrated compendium of analytic drawings and diagrams that assesses each of the case studies, which together highlight the comparative analysis built into the duo-city multiple case study.

Assessment: 100% continuous coursework assessment

ARCH7270 The "Navel" of the Earth (6 credits)
This course looks at the Ancient Greek sites, their history, their topography and their mythological connections both with the old world and the contemporary one. These sites constitute a cultural infrastructure that has forever marked our public lives, as much as the physical ones have. Like the great railways and the electric networks, which crisscross our countries, these places reveal themselves through our multiple readings, artistic, natural, linguistic, each one to suit our ever more heterogeneous and globalized collective.

Assessment: 100% continuous coursework assessment

ARCH7271 Composed Grounds (6 credits)
The ground is the primary surface of human contact and navigation. Whatever the ground is or does, it affects our ability to divide, connect and interact with each other. When tasked with designing grounds, lines need be drawn, zones identified, routes and destinations established; all inevitably leading to a final composition. If composition is understood as the arrangement of elements according to certain principles, what are these principles? What kind of intelligence is embedded within them? What do they contribute in the context of ground? Composed Grounds will provide, through comparative analysis, an overview of composition-driven outdoor spaces. The objective will be to identify (beyond style) constituent elements as well as prevalent means of organization. We will be looking to reveal each work's design intent through their layers, zones, routes, patterns, connections and (where applicable) programmes. As types, Gardens and Parks will take precedence, but these will be loosely interpreted to allow for the inclusion of outdoor spaces with comparable qualities. Furthermore, subjects of investigation may be integrated with or disassociated from Architecture. All selections, however, will exhibit carefully orchestrated compositions.

Assessment: 100% continuous coursework assessment

ARCH7272 Together: Communes, Collectives, and Communities - Studying Socio Political Ecologies (6 credits)
This course offers insights into concepts within the disciplines of philosophy and social political theory, that help in the understanding of living and architecture in relationship

to its politics, ecologies and economies. The course proposes a mixed method in teaching, including seminars, tutorials and one lecture. The seminar sessions will be taught in a predominantly flipped classroom-teaching environment, to enhance discussions on, and engagement with, the materials of the course.

Assessment: 100% continuous coursework assessment

ARCH7273 Topics in Urban/Rural Studies (6 credits)
This course gives students the opportunity to further explore specific issues and topics in urban design and planning. Topics change from year to year based on course contents.

Assessment: 100% continuous coursework assessment

ARCH7274 Topics in Urban Studies (6 credits)
This course gives students the opportunity to further explore specific issues and topics in urban design and planning. Topics change from year to year based on course contents.

Assessment: 100% continuous coursework assessment

ARCH7275 A Visual Diary of Paris: Observe, Read, Collect, Draw, Record (6 credits)
This course will explore and understand the dense urban fabric of the city of Paris. Through walking, observing, collecting, recording and drawing we shall understand the city's relationship to its geography, landscape and infrastructure and how its architecture and landscape are a "synthesis" and not a "juxtaposition". We will learn how the politics and the governance of the city has ruled the city's development and its environs since the 12th century. Students will be guided through centuries of urban and architectural sedimentation, the landscapes and geographies that are displaced and created will be at the core of our discussions. Each student is required to carefully record every possible observation through photographs, drawings, postcards, objects, or extracts from books, newspapers or writings on the city.

Assessment: 100% continuous coursework assessment

ARCH7276 City Metamorphosis: Urban Residual Space (6 credits)
As a direct result of massive rural-urban migration, we are faced with distinctive city transformation issues in China. This course will cover urban renewal issues in selected local districts from and around the Yangtze River Delta (YRD) region. Historical, Cultural, Socio-economic issues that led to the formation of urban residual space in the inner cities will be identified. The renewal potentials of these spaces will be critically examined and researched upon on. A new set of design parameters would be generated from the research findings. The parameters act as catalyst for plausible design proposals.

Assessment: 100% continuous coursework assessment

ARCH7277 Refugee Camp Design (6 credits)

In 1961, in opposition to the "war games" and cold war logic, Buckminster Fuller proposed the "World Peace Game" and instructed players to “Make the world work, for 100% of humanity, in the shortest possible time, through spontaneous cooperation, without ecological offense or the disadvantage of anyone.” In 2020, we have "At least 79.5 million people around the world that have been forced to flee their homes. Among them are nearly 26 million refugees, around half of whom are under the age of 18."

Our field of study is the world’s largest refugee camp: Cox's Bazar in Bangladesh. About 1 million Rohingya was forced to flee genocide in Myanmar since 2017. In Cox’s Bazar, the Rohingya face a complex number of challenges: access to drinking water, food, fragile shelter on land-slide prone terrain, sanitation, hygiene, and essential health and education services.

Based on existing need studies, students will work on: Gardening, Composting, Sustainable Toilets, Aquaponics, Rainwater harvesting (and synergy with land sliding in refugee camps), Cartography. Working in small groups, students will produce device prototype, instruments, and educational material. It is not about solving refugees’ challenges, but bringing a new perspective and proposing ideas, design, and educational materials.

The course is being developed with and for actual refugees and experts - many of which will engage in live dialog with the students. Students will be supported to apply for grants to test the designs in Cox's Bazar during summer 2021 with our partners.

Assessment: 100% continuous coursework assessment

ARCH7278 Open Building in Transition (6 credits)

Open building is about architecture that connects to the pulse of life. It also the changes of design methodology in the request for sustainable future for the built environment. Open building is about an architecture that explicitly addresses – and meets with solutions - the challenges of change and continuity, and of individual and community responsibilities. This course investigates the concept and design strategies for everyday built environment characterized by changes and participatory in design. If change of use in stable form is normal – therefore let us distinguish which technical parts and spaces last longer, and which will change or be replaced by parts performing the same function, to meet life in all its varieties and nuance. If no open designs everything – therefore let us understand and work with distributed design. This course consists of lectures, international forums, and workshops.

Assessment: 100% continuous coursework assessment

ARCH7279 Matter, Density and Projection (6 credits)

This course gives students the opportunity to understand, manipulate and design with the intangible notion of shadow, its modifying effect on architecture and its influence on how we perceive space. We will explore its potential as a design tool to translate, mold and simulate three-dimensional spatial embodiments to study Hong Kong's urban fabric with a different view. By tracing areas of various densities, a new vocabulary of spatial transformations is generated to test and learn about the significance shadow has on architecture and our sense of space. These investigations will be conducted using analogue and digital media by creating drawings and models, both through physical and digital technologies.

Thus, the elective aims to enhance abstract, analytical and spatial thinking skills, as well as gain knowledge of the impact on matter, density and projection in urban areas by developing another understanding of seeing, observing and processing the metamorphosis of dimensions and structures in the city.

Assessment: 100% continuous coursework assessment

ARCH7401 Real Utopias (6 credits)
(cross-listed under Category I: History and Theory)
In Architecture, urbanism and all disciplines of design, ideas are mainly written, analysed, described and publicised through drawings. Such was the case with the drawings of, Hilberseimer (sectional), as well as Superstudio (3-dimentional speculative collage) and many others... Drawings are processes of understating, informing, speculating and projecting. They are a precise code to what they describe and what they propose. The city has been described through both very speculative (fictional) as well as very definitive (real) drawings throughout centuries. Oswald Matthais Ungers used the capacity of speculative drawings as a unique type of description and projection of the realities of the city and not the city Utopia. This seminar will explore, investigate and cross-examine the modern history of representation of the city and its infrastructures through their projective potentials leading to better realities influencing the social/ political, the cultural and the economic structures of our societies.

Assessment: 100% continuous coursework assessment

ARCH7402 Propositions for Planetary Living-II (6 credits)
Propositions for Planetary Living is an advanced seminar that aims to develop new approaches for cohabitating Hong Kong, based on the assumption that an affluent society knows how to live with/in its environment, and how to be sustainable both socially and environmentally.

Assessment: 100% continuous coursework assessment
CATEGORY III: TECHNOLOGY AND SUSTAINABILITY

ARCH7180 Topics in Architectural History and Theory (6 credits)
(cross-listed under Category I: History and Theory)

This course gives students the opportunity to further explore specific issues and topics in architectural history and theory. Topics change from year to year based on course contents.

Assessment: 100% continuous coursework assessment

ARCH7355 Designing Care in Commons (6 credits)
From cattle overgrazing to climate change, rational economic individuals habitually act to maximize personal gain, consciously ignore the consequential depletion of shared resources, causing great harm to the entire community - evolution biologist Garrett Hardin (1968) elaborated on this phenomenon in his profoundly influential paper, the Tragedy of the Commons. The objective of this studio is to design a series of temporal-spatial interventions that could rescript these types of tragedy away from the commons. What needs to be in place to disrupt catastrophic externalities caused by individuals' endless self-serving interests, and to trigger a gearshift in momentum to foster community well-being towards an equitable and sustainable future? Can citizen-architect design site-specific-situational encounters that could generate ripple effects of mutual care in the commons?

Assessment: 100% continuous coursework assessment

ARCH7356 Nordic Latitudes (6 credits)
This is an introductory course to Scandinavian architecture, its history and the contemporary sphere. In the northern periphery nature's rule is absolute. Its architecture reflects an extreme consciousness of resources, a natural adaptation to harsh and challenging environment, and utilitarian civic ideals. The course seeks to develop a deeper understanding of the architectural language and construction, addressing issues crucial to the contemporary understanding of space and architecture in the Nordic sphere.

The course will be presented as an anthology, discussing fundamental design principles embedded in the psyche of the place, such as man's relationship to nature, past and present and homely interiors. Through lectures, archival research, precedent analysis and model-making, the course will examine local building traditions and explore a few of the ideas that dominated the means of architectural production in Scandinavia in the last 100 years. Local architects and experts will join us to give account on past and current trends of the practice.

Assessment: 100% continuous coursework assessment

ARCH7357 Impossible Architecture (6 credits)
In the current worldwide paradigm, design enters a new stage – that of environmental awareness, which aims to deal with the problems created by mankind so far. Thus,

design loses its traditional elitist posture, demanding a more comprehensive, inclusive, and environmentally cautious approach.

Though technology has contributed heavily to the pollution and eventual damage of the natural world, it is now offering the possibility of redemption by rethinking not only how we design, but how we live. By having the capacity of controlling technology and not only succumbing to its power (as it has been the case since the industrial era), but architects can also use digital fabrication tools as an inherent component in the design workflow. Given this constant renewal of work components, new technology demanded new material – and one field which is emerging is that of bioplastics.

Bioplastics are materials produced from renewable biomass sources. This includes everything from food waste, natural waste, vegetable fats and oils, to recycled plastic or natural gas. There a multitude of bioplastic recipes available already, and more can be continuously discovered.

Assessment: 100% continuous coursework assessment

ARCH7360 Building Structures and Systems (6 credits)

The course is designed to close the gap between structural theory and design. The subject is divided into two parts. The first part highlights the more important aspects of the structural planning process from architects' point of view. The second, analytical part, develops candidates' skills through case studies of actual projects leading to a deeper understanding of the complexities of the structural problem. Topics such as building failures, structural alteration and additions, building regulations, geotechnics, foundations on difficult grounds and computer-aided structural design/analysis will be discussed.

The course provides an understanding of the realities of designing and manufacturing components of buildings within aesthetic, economic and time frameworks. Design construction communication is studied through production and technical drawings, manufacturer's shop drawings with special emphasis on the use of materials and manufacturing technology. Direct studies of manufacturing techniques both traditional and new are undertaken by field trips to factories and construction sites. Construction systems including the systems approach, standardized buildings, contractual strategies and their impact on the evolution of building production are investigated.

Field trips to construction sites and design offices form an integral part of the course.

Assessment: 100% continuous coursework assessment

ARCH7361 Sustainable Building Systems (6 credits)

Advanced studies in innovative technologies are undertaken. Energy efficient and intelligent buildings are analyzed and advances in parallel industries such as aerospace, shipbuilding and the transportation industries are studied for applicability in the building industry. Computer modelling is used extensively in this option. Total energy systems are investigated as are low environmental impact techniques.

Assessment: 100% continuous coursework assessment

ARCH7363 Materials, Services and Structure (6 credits)
This course concentrates on understanding and applying the principles of building structures, building materials and construction technology, environmental controls and building services, in an advanced level of integrated architectural design, geared to the local context. For building materials and construction technology, the emphasis is on the performance criteria and applications of building materials, components and systems of construction. For building structures, the emphasis is on structural schemes systems relating to local building regulations and codes. For environmental controls and building services, the emphasis is on local regulations and codes, and coordination of services for heating, ventilation, air-conditioning, fire safety, plumbing and drainage, electrical, lift and escalators, etc.

Assessment: 100% continuous coursework assessment

ARCH7364 Nonspace: Materials, Processes, and Constructions (6 credits)
While space is the most distinguished objective of architecture, the boundaries and character of space are defined by elements of non-space: materials, processes, and constructions. This is the paradox of architecture. This course explores a conceptual framework for the environmentally responsive design of building assemblies, based upon a clear understanding of materials and their inherent processes and construction technologies. Building materials will be analyzed and carefully drawn with emphasis on their physical and architectural properties, functions, and behavior in manufactured and installed constructions. The design of building assemblies made from concrete, masonry, timber, steel, and glass will be examined in relation to the forces that shape their composition and performance.

Assessment: 100% continuous coursework assessment

ARCH7365 Design Research on Architecture and the Environment (6 credits)
This course focuses on case studies and design experiments related to architecture and the environment. It foregrounds an understanding of the effects of architecture on its immediate environment, literally the environments that buildings create. This course will be conducted as a research seminar, the predominate mode of thinking, intellectual development and idea formation for the course is physical modelling and diagramming. Each week students will be required to do a series of readings and will work in teams to analyze two precedents through sectional models, drawings and diagrams. Students will study two precedents over the course of the entire semester devoting approximately a half a semester to each. Students will be asked to cull out specific design ideas from readings and associate them with sectional models and drawings for in class discussions and pin ups. Case studies, model making and prototypical modes of research will be used as a vehicle to discern specific disciplinary design techniques and strategies.

Assessment: 100% continuous coursework assessment

ARCH7375 Design after Nature (6 credits)

Our spatial and sensorial experiences are formed by design through cycles of environmental, material, cultural, political, and economic ecologies. Our "natural" environment is continuously being designed and defined by our engagement with Hyperobjects resulting a series of Subnatures and new conditions. This seminar will explore the theoretical propositions between architecture, landscape, art, and contemporary ecological theory. Students in this course will critique a series of texts, research, develop a catalogue of sites, and examine a number of different works by various designers and artists. At the end of the course each student shall be responsible for a graphic essay dedicated to a specific site or theoretical position.

Assessment: 100% continuous coursework assessment

ARCH7376 Inhabitable Territories (6 credits)

Located on the ambiguous limits between the artificial and natural world, ski resorts and beaches inform us about human's contemporary relationships to the environment. With a series of territorial installations, a wide range of specialists has been articulating natural spaces in order to enable sensorial experience for the sake of leisure and fun. They have deeply modified the original settings and produced new forms of geography and landscape. The aim of this course is to reveal the underlying system at work by highlighting experiential, programmatic and infrastructural continuities. From an architectural point of view, we will interrogate the way these spaces are generated and the behavior they produce.

Assessment: 100% continuous coursework assessment

ARCH7377 Concrete Approximations (6 credits)

This course exposes students to the physical act of making in architecture through dynamic structural logics and material testing, at scales of intervention larger than possible in the classroom. The objective is to prototype new types of structures, mostly using concrete as casting material, and engaging more closely with the material's unique properties: fluidity, pressure and weight. Students will be tooled up with a variety of form finding techniques and analogue formwork devices, through trial and error experiments. The initial research findings will be synthesized towards the construction of a full-scale and site-specific project exploring inventive fabrication processes of translating complex geometries to local building techniques.

Assessment: 100% continuous coursework assessment

ARCH7378 Topics in Architectural Technologies (6 credits)

This course gives students the opportunity to further explore specific issues and topics in architectural technologies. Topics change from year to year based on course contents.

Assessment: 100% continuous coursework assessment

ARCH7379 Performative Envelopes (6 credits)
This course explores the history of membrane use in forms and architecture with a focus on the most recent developments being explored by architects, manufacturers, and scientists. While building on the canon of work that has been done with membranes in the past, students will explore the membrane as a medium, formwork, and environmental interface. Emphasis will be placed on the performative characteristics of membrane technology and architectural layering of various membrane technologies with respect to structural design methods. Membrane materials, PTFE, ETFE, plastics, foils, meshes, printing, laminating, and vacuum forming technologies will be explored relative to new potentials for spatial, structural, and environmental performance. Each student will design a membrane structure and build a prototype of a detail of their membrane.

Assessment: 100% continuous coursework assessment

ARCH7382 Floating Marine Laboratory (6 credits)
In this course, we will design innovative ocean science and entrepreneurship infrastructures. A floating laboratory for research and development to study the ocean and develop sustainable solutions for Hong Kong waters and the world.

The ocean is where all life comes from and our future depends on it. The ocean covers more than 70% of our planet's surface and absorbs most of the heat from the sun, therefore controlling earth's climate. But our oceans are mostly unexplored while being overfished, polluted with plastic, industrial and agricultural run-offs and radioactive substances. The ocean is suffering a rapid biodiversity decline without much general public awareness and more so lacking significant action to reverse this deadly trend.

Assessment: 100% continuous coursework assessment

ARCH7384 Deep Drawing (6 credits)
Based around the ambition of developing new tools to examine and plan the territory, students will engage with the transformative role of drawing as a way to investigate topographical and architectural conditions. The drawing will operate at a variety of scales, from the territorial, involving displaced and constructed geographies, to the intimate, looking at the processes of fabrication and manipulation of raw materials into building components. This methodology of drawing as a form of research puts forward the importance of assessing architecture through multiple scales beyond that of the building and various tangibilities. This approach will develop the student's capacity to be both a maker and a territorial agent, triggering an awareness of the designer's social

and environmental responsibilities in relation to resources, past and living histories within the design process.

Survey drawing is our primary tool of investigation and the relationships between representational techniques, technology and the reading of the built environment are at the heart of our discussions. The survey encompasses many forms of drawing, from the technical to the speculative or the imaginary. The survey is not an illustration but a construct. The drawer builds on the knowledge gleaned from the survey to reveal what is hitherto unseen to the curious eye. To survey a condition is to reveal its essence, provoking a transformation that renders the first act of design. Each drawing evolves beyond the mere representation of a condition to become the repository of the drawer's findings. By making a survey the drawer 'draws oneself into place' finding points of departure to act and taking an active part in the future of a city or a territory.

Assessment: 100% continuous coursework assessment

ARCH7385 Building in Common (6 credits)

Building in Common proposes a practice of architecture that is more inclusive and sensitive to the world that already exists around us through Gibson's notion of affordance, of what the environment offers and the notion of complementarity. This course explores the relations between making and the material flows that link human and non-human actors and understand the design-build as an action comprising both material intervention and shared experience. This methodology puts forward the importance of assessing architecture through multiple scales beyond that of the building.

This collaborative methodology brings to both students and the communities, within which the course takes place, an understanding of architectural practice as one of identifying and acting upon existing potentials in an empathetic, inclusive, and considerate manner, taking into account the intricacies of society and the physical nature of living. The course will highlight and activate the potential agencies of different community groups through the identification of common goals for the city and for the land.

Assessment: 100% continuous coursework assessment

ARCH7403 Material History (6 credits)

This is a seminar about materials, their properties and embedded structural concepts. The seminar seeks to offer a space to reflect on the physical life of building matter and the invisible forces that govern us. Looking back at the evolution of material invention in the construction practice, we will see to understand the basic principles that define and characterize the behavior of objects (or systems) subjected to forces and what those forces themselves are.

Through short exercises and the analysis of several case studies, we will dive into the world of material science, exploring materials, not only as constructive matter, but as a generator of precise architectural thought.

Assessment: 100% continuous coursework assessment

ARCH7476 Generative Design in Architecture (6 credits)
(cross-listed under Category IV: Digital Media and Fabrication)
Generative Design in Architecture is a research seminar concentrating on the discoveries, applications, and critiques of emerging digital design technologies in finding architectural design solutions. In this course, different programming methods will be introduced as the drivers to navigate through five interdisciplinary fields that are increasingly entwined with architectural design. These fields include computational geometry, digital fabrication, simulation and analysis, sensing and 3D scanning, and artificial intelligence (AI). The goal of understanding these emerging technologies is to develop new design models that are transformed from human-centered solution describing processes to machine-centered solution searching processes. With the advances in today's computing technologies, such change will enable us to explore a broader solution space beyond the constraints of our empirical knowledge regarding geometries, materials, structures, and aesthetics. However, besides the enlarged solution space, it is more important to examine whether generative design processes could stimulate us to think efficiently, think differently, and think more creatively. Because in generative design processes, instead of being occupied by manipulating forms, designers have more freedom in defining and redefining design goals and criteria.

Assessment: 100% continuous coursework assessment

CATEGORY IV: DIGITAL MEDIA AND FABRICATION

ARCH7406 Architects and Their Chairs (6 credits)
(cross-listed under Category I: History and Theory)
"The chair is a very difficult object... There are endless possibilities and many problems – the chair has to be light, it has to be strong, it has to be comfortable. It is almost easier to build a skyscraper than a chair."
- Mies van der Rohe

The chair materializes the way of living. From a ceremonial object symbolizing power before enlightenment, to a mundane utilitarian object associated with work in the industrial age, and eventually to what represents the contemporary lifestyle and personal identity, the chair provides a sectional view of the modern life. Architects' chairs particularly, charged with ideas also manifested in their houses, are statements of their vision toward domestic living.

Yet such statements are achieved through evolution, not revolution. Looking back at the lineage of Danish tradition in furniture design, whose many components grew out of Chinese Ming chairs, one may be able to understand how a classical form that originated in one culture could be altered and adapted to another. The perspective toward design as an evolutionary process constitutes the methodology of this workshop,

believing that innovation is not to break up with history, but accomplished through exhaustive and iterative development from a precedent.

Assessment: 100% continuous coursework assessment

ARCH7460 Computer Graphics for Architects (6 credits)
Through a series of exercises, presentations, and discussions, the course will investigate the evolving relationship between architecture and its means of representation, as well as broader issues of technology, information, and culture. While the course will explore the impact of computing technology on the representation of architecture, it will also provide a firm understanding of some of the software required to do so.

Assessment: 100% continuous coursework assessment

ARCH7462 Computer-aided Architectural Design Methods (CAAD Methods) (6 credits)
A study of current computer techniques and technologies which can be used by architects to develop design methods that fully exploit contemporary computers as design aids.

Assessment: 100% continuous coursework assessment

ARCH7466 Parametric Structures (6 credits)
This research seminar will examine the concept of parametric systems and their applications in and implication on architecture. Through a series of lectures and guided design exercises students will be introduced to the theoretical background and logic of parametric systems and the generation of them in the digital environment. Historical building precedents of specific architectural typologies will be examined to open up a critical dialogue between existing physical constraints and the digital realm. Different design techniques will be studied and deployed in order to generate several parametrically driven prototypes that have the capacity to form innovative architectural structures.

Assessment: 100% continuous coursework assessment

ARCH7467 Making Ways and Ways of Making (6 credits)
One to one design is not an issue of how large a physical output becomes but rather how the properties of real materials are vigorously experimented with at any particular scale. The seminar will strive to bring forward inventive means of making that engage material behaviours in response to external forces at work while remaining receptive to its investigated scale. Making ways for such prototypes will address the necessity to construct intermediary frameworks which will become an integral part of the making process. This workshop based seminar, supported by a series of lectures, will encourage students to explore procedural logics of making that expand on and revisit initial design

premises from a series of physical explorations at incrementing scales. Each scale of investigation will have its own design focus and will inform the overall conception of a collective design-built project realized by the students near the end of the course. The core ideology is to influence the process of architectural design in reverse; that is by synthesizing an architectural proposal from the findings emerging out of a succession of well crafted experiments.

Assessment: 100% continuous coursework assessment

ARCH7469 Explorative Architecture Techniques (6 credits)
The profound embedding of advanced digital and information-based tools in all aspects of explorative architectural practices has caused a radical revolution in contemporary design techniques. By combining case studies of today's leading architects with tutorials on advanced 3D modelling, parametric and algorithmic design methods (scripting), this course investigates the use of digital design techniques in the translation of geometries into built form. The aim is to gain an understanding of the geometric challenges, material possibilities and limitations faced with when working within this new paradigm.

Assessment: 100% continuous coursework assessment

ARCH7470 Architecture by Nature (6 credits)
Architecture by nature evolves autonomously from its users and engages with the dynamic complicity between built projects and processes in nature. It is less concerned with environmental compliance and more with the productive collision between architecture and nature: landward, seaward and skyward. We will study intentions from ideal and elementary architectural precedents throughout history. These case studies are grafted in and wrought by extreme environments and will offer a platform from which students will develop their own project. Time based procedures will be introduced as a mean to register physical transformations in the natural environment. We will seek to create specific architectural prototypes that without dependence on nature would simply become generic; instruments taking on the active and physical role of measuring spatially the changing nature of environmental force, otherwise intangible. The essential question for the seminar is: "How does the architect project adaptively and in complicity with such evolving physical and spatial environments?"

Assessment: 100% continuous coursework assessment

ARCH7471 Material Fabrications (6 credits)
This course is an intensive workshop involving in depth field research in the topic of fabrication.

Assessment: 100% continuous coursework assessment

ARCH7472 Topics in Advanced Technology (6 credits)
In Site of Erasure students will create short films in order to specifically persuade an audience of a precise architectural position. Through a series of lectures, discussions, presentations, and filmic exercises, the course will investigate the relationship between architecture and film, as well as broader issues that arise when information and socio-political concerns intertwine.

Topics change from year to year based on course contents.

Assessment: 100% continuous coursework assessment

ARCH7474 Structural Research – Gridshells (6 credits)
This course specialises in the design and construction of doubly curved grid structures. Through analysis of existing structures and innovative research of independent hypothesis, students will become experts in the field of strained gridshells, discovering new potentials for digital design and fabrication.

The course aims to install a methodology of research-by-design, fostering self-responsible, creative research based on well-founded scientific principles. These principles will be taught through theoretical inputs, hands on workshops, model making and digital modelling of reference structures. The class will acquire the ability to use Rhinoceros, Grasshopper as a digital 3D environment to explore and design complex structures, and Kangaroo and Karamba, to conduct form finding and structural analysis tasks, and digital manufacturing to fabricate and construct meaningful prototypes.

Assessment: 100% continuous coursework assessment

ARCH7475 Visual Practices (6 credits)
The course will explore the use of drawing and visualization as a critical tool for design. Students will experiment with a range of illustrative media and techniques representative of both traditional and emerging design approaches and expand on their ability to work across digital and analogue media. Tutorials will be given in a range of techniques and applications. In-class lectures and tutorials will be supplemented by discussions inspecting relevant drawings and visualizations, their authors and if applicable, the issues that defined their work. A series of iterative drawing and visualization exercises will structure the course. These will be shared and discussed during class. Students are expected to have basic drawing and visualization skills, be able to undertake visual research and produce visual narratives.

Assessment: 100% continuous coursework assessment

ARCH7476 Generative Design in Architecture (6 credits)
(cross-listed under Category III: Technology and Sustainability)
Generative Design in Architecture is a research seminar concentrating on the discoveries, applications, and critiques of emerging digital design technologies in

finding architectural design solutions. In this course, different programming methods will be introduced as the drivers to navigate through five interdisciplinary fields that are increasingly entwined with architectural design. These fields include computational geometry, digital fabrication, simulation and analysis, sensing and 3D scanning, and artificial intelligence (AI). The goal of understanding these emerging technologies is to develop new design models that are transformed from human-centered solution describing processes to machine-centered solution searching processes. With the advances in today's computing technologies, such change will enable us to explore a broader solution space beyond the constraints of our empirical knowledge regarding geometries, materials, structures, and aesthetics. However, besides the enlarged solution space, it is more important to examine whether generative design processes could stimulate us to think efficiently, think differently, and think more creatively. Because in generative design processes, instead of being occupied by manipulating forms, designers have more freedom in defining and redefining design goals and criteria.

Assessment: 100% continuous coursework assessment

ARCH7477 3D Printed Matter (6 credits)

In recent years 3D printing has made its way into the building industry. While the technology is still in its infancy, the profession has witnessed the first prototypes in different parts of the world. As the city of Dubai alone expects to utilize the technology for more than 25% of all buildings built by 2030, some players within the profession anticipate that the technology will revolutionize the production of architecture. Technology in the building industry is often driven by efficiency and economic factors but rarely by creativity. At the beginning of the 2020s, the world is confronted with pressing issues. As architects, we must ask, what are the advantages of these new ways of making? Can the technology solve issues we could not address previously? Are we merely replacing old ways of making with new ones without asking the right questions? The course will address these questions and will introduce students to the technologies related to 3D printing in the Robotic Fabrication Lab at HKU.

Assessment: 100% continuous coursework assessment

ARCH7478 Bending Bamboo Rules (6 credits)

The combination of bamboo construction and digital design technology enables radically unique and spatially versatile architectural solutions rooted in local culture and sustainable building practices.

Design research course "Bending Bamboo Rules" builds on earlier fundamental research on the digital design and implementation of bending-active bamboo shell structures and expands its concept design methods, leading to more diverse design outcomes. The course combines research in architectural design with digital physics-simulation engines and prototyping for low-tech, lightweight construction systems and uses demonstrator design studies as proof of concept.

Bamboo is a material of high environmental and socio-cultural importance. It is one of

the fastest growing, widely available, low-cost, carbon-sequestering natural resources suitable for direct implementation in construction. It has globally been part of vernacular construction for centuries. Expanding its design solution space with contemporary answers will positively impact the development of the built environment.

Bending-active shells are amongst the most material-efficient, hyper-lightweight structures. They rely for strength and construction implementation on the overall geometrical double curvature and elastic bending properties of their components. Their nonstandard geometries provide unique spatial design opportunities, and their material efficiency results in a reduced need for natural resources. This course's outcome will illustrate that a wider and spatially more versatile and practically applicable solution space exists for this eco-friendly mode of construction.

Assessment: 100% continuous coursework assessment

ARCH7479 Temporary Site-Specific Installation (6 credits)
This class will involve thinking with materials, mixed-media exercises, and the formation of large-scale creative concepts through small-scale experiments and temporary constructs. We will explore ways in which traditional handwork, and material knowledge can be extrapolated into site-specific installations, spatial interventions and physical interactions with place and matter. This course merges the history of craft and technology, with hands-on making and archival research to create a series of projects designed to build deeper structural understanding of the materials and what is possible.

Assessment: 100% continuous coursework assessment

ARCH7480 Transfer - Structural Transformations (6 credits)
The course adopts an experimental approach to physical models and structural understanding, exploring how we use models in architecture as a tool to test and innovate on structural principles. This course is giving the students an opportunity to deepen their understanding of high-rise structures, structural design and structural load transfer.

Students will learn about the general principles that underlie in high rise buildings and the major challenges that lie within structural load transfer. The course will give plenty opportunities to analyse existing buildings, experiment with structural principle and apply the knowledge to design solutions.

Assessment: 100% continuous coursework assessment

ARCH7568 Design Practice Field Workshop (6 credits)
This course is an intensive workshop involving in depth field research in the topic of design practice.

Assessment: 100% continuous coursework assessment

CATEGORY V: PRACTICE AND MANAGEMENT

ARCH7405 Research on Participatory Design in Architecture (6 credits)
Although "Participatory Design" and "Public Engagement" are terms which appear more and more often in contemporary architectural discourse, little research has been done regarding to this methodology. While related fields like urban planning and social studies have substantial literature and theories on wider social participation. This course is an action-research on the topic of participatory design in architecture. By collaborating with a local NGO, students are invited to design a mobile street kiosk in Kowloon City with the engagement of local communities. The methodology and effectiveness of participatory design will be the main focus and how architects can use different engagement tools to achieve a more comprehensive design outcome will be explored in this course.

Assessment: 100% continuous coursework assessment

ARCH7563 Community Building Workshop (6 credits)
The course intends to investigate issues in design and construction through hand-on experiences and involvements in an actual building process. By participating in the design and construction of varies types of community projects including temporary or permanent installations, shelters or buildings, students are to explore the nature of materials and structure, methods in construction, as well as modes of fabrication and design media. The process also provides opportunities for students to interact and exchange knowledge with different stakeholders involving in the building process: users, contractors, managers and sponsors. The focus of task for each year may varies pending on the nature of project and resources available, but a commitment to the community and a team work spirit, as well as the appreciation of the tactile and tectonic quality in design will always be essential part for the course.

Assessment: 100% continuous coursework assessment

ARCH7564 Building Information Modelling in Architectural Practice (6 credits)
BIM technology is more and more often adopted in architectural practices throughout the world as the main tool for design, managing and documenting projects. Successful implementation of BIM for day to day work in an office and taking most advantage of the technology requires proper configurations, methodologies and standards. Without such structured approach and without applying best practices developed by the industry, BIM may easily become more of a problem then a solution. BIM technology allows integration within one project database of Architecture, Structure, MEP (Mechanical, Electrical, Plumbing) and others to create a complete virtual model of a future building. Such a model is like a living entity, constantly updated throughout the design process and later during the building lifetime. In various stages of this lifetime a BIM model can be used for many purposes from scheduling and calculating areas, curtain wall costing, outputting documentation, performing thermal analysis to managing tenants and security issues in the field of building maintenance. Achieving those goals requires

understanding of capabilities and limitations of the technology in very practical aspects, but also orientation in prospects and future opportunities for BIM.

Assessment: 100% continuous coursework assessment

ARCH7565 Introduction to Building Information Modelling and Management (6 credits)

BIM technology is changing and will continue to change the face of architectural profession. It influences all stages of design and project management and aims to integrate within one database Architecture, Structural Design, MEP (Mechanical, Electrical, Plumbing) and others. This database, which contains a 3D model of a building, formal project documentation and other information is a dynamic object, constantly updated throughout the whole design process and building lifetime. In any stage of the project it may be a source of invaluable, up-to-date information about building parameters and physical performance, which would be difficult or expensive to obtain using traditional methods. Such data can help the architect to make more informed decisions at earlier stages of design, which greatly reduces costly changes and errors. The objective of this course is to familiarize students with basic ideas and applications of BIM technology using the most widely adopted BIM software package, Revit Architecture. Examples used for this purpose during the course will be based on real projects and case studies, which count themselves among the most complex and innovative in terms of design, modelling approach and project management.

Assessment: 100% continuous coursework assessment

ARCH7566 & ARCH7567 Topics in Practice and Management I & II (6 credits each)

Architects & Money takes on an often controversial and frequently shunned topic in the architectural profession – money – and all the messy baggage that accompanies it. Purposefully positioned to bridge the divide between architecture and development, this course will offer practical knowledge on how the world of real estate investment and development really works, and simultaneously question the definition of the value of design. The course will also look deeper into the role of the architect in today's global cities and why understanding the financial risks of development – indeed being able to manipulate and mitigate such risks – positions the architect to play a more determinate role in the game and at long last, *grab a piece of the action*. Sessions are envisioned to alternate between seminar-style presentations and more interactive workshops/case studies. A working knowledge of Excel is a course requirement.

Topics change from year to year based on course contents.

Assessment: 100% continuous coursework assessment