

REGULATIONS FOR THE DEGREE OF MASTER OF ARCHITECTURE (MArch)

(See also General Regulations)

Any publication based on work approved for a higher degree should contain a reference to the effect that the work was submitted to the University of Hong Kong for the award of the degree.

Admission requirements

- Ar76** To be eligible for admission to the degree of Master of Architecture, a candidate shall
- (a) comply with the General Regulations;
 - (b) be a Bachelor of Arts in Architectural Studies of this University; or possess a degree, diploma or other qualification of equivalent standard and content from another university or comparable institution; and
 - (c) complete the curriculum and satisfy the examiners in the First and Final Examinations in accordance with the regulations set out below.
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Curriculum

Ar77 The curriculum shall extend over two academic years of full-time study and shall include the First Examination and the Final Examination.

- Ar78** To complete the curriculum, a candidate shall
- (a) enroll for courses of a total 96 units¹ (the average load per semester being 24 units);
 - (b) follow instruction in the courses prescribed and complete satisfactorily all coursework set either as tests or as parts of any examination; and practical work² to be undertaken as an integral part of the MArch course; and
 - (c) satisfy the examiners at the First and Final Examinations in the manner specified below.
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Examinations

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- (a) The First Examination shall comprise an examination of the candidate's completed projects and coursework in Architecture and Urban Design I and II and may include an oral examination; and in three core courses and three courses chosen from the following four categories^{3, 4}:
 - Category I: Architectural History and Theory
 - Category II: Architectural Management
 - Category III: Architectural Technology/CAAD
 - Category IV: Independent Studies

¹ 1 unit = 8 teaching hours per semester (or 3-unit course = 2 teaching hours per week).

² Candidates are required to undertake practical work for a minimum of 10 weeks normally during the summer vacation in the MArch course under the guidance of the Department on completion of the First Year of their studies. Reports for assessment on their practical work have to be submitted to the Department before the commencement of the First Semester in September.

³ Not more than three courses are to be chosen from any one category.

⁴ It should be noted that not all of the courses in the Categories I, II and III will be offered every year.

- (b) The Final Examination shall comprise an examination of the candidate's completed projects and coursework in Architecture and Urban Design III and IV and shall include an oral examination; and in one core course and five courses chosen from any of the four categories⁵ in regulation Ar79(a) above.

Ar80 The following clauses apply to candidates of all years:

- (a) Candidates who have passed in Architecture and Urban Design in the first semester or Architecture and Urban Design in the second semester;
- (i) but failed in not more than three other core courses in the respective year Examination at the first attempt may be permitted to present themselves for re-examination in the same course or courses before the commencement of the following semester. Those who have failed in not more than one course in the second attempt shall be permitted to proceed to the subsequent semester of the curriculum and to present themselves for re-examination in the same course only once more in the following academic year. Those who have failed in more than one course in the second attempt shall not be permitted to proceed to the subsequent semester and be required to repeat all or part of the respective year curriculum and to present themselves for re-examination only once more in the following academic year.
- (ii) but failed in more than three other core courses in the respective year Examination at the first attempt shall not be permitted to proceed to the subsequent semester and be required to repeat all or part of that year curriculum and to present themselves for re-examination in the following academic year. If they fail again at the second attempt, they may be permitted to present themselves for re-examination only once more before the commencement of the following academic year.
- (b) Candidates who have failed Architecture and Urban Design in the first semester shall not be permitted to continue in Architecture and Urban Design in the second semester. Candidates who have failed in Architecture and Urban Design in the first semester or Architecture and Urban Design in the second semester;
- (i) and in not more than three other core courses in the respective year Examination at the first attempt may be permitted to present themselves for re-examination before the commencement of the following semester. If they fail again in any core course or in Architecture and Urban Design at the second attempt they shall not be permitted to proceed to the subsequent semester and be required to repeat all or part of that year curriculum and to present themselves for re-examination only once more in the following academic year.
- (ii) and in more than three other core courses in the respective year Examination at the first attempt shall not be permitted to proceed to the subsequent semester and be required to repeat all or part of that year curriculum and to present themselves for re-examination in the following academic year. If they fail again at the second attempt, they may be permitted to present themselves for re-examination only once more before the commencement of the following academic year.
- (c) Candidates who have failed to satisfy the examiners in one or more electives in their first attempt may be permitted under special circumstances to register for alternative courses and be examined at a specified date. If they fail to satisfy the examiners, in any of the substitute courses, they may be permitted to present themselves for re-examination only once more at specified date. If any of the failed courses is not being offered in the particular academic year, this may be construed as a special circumstance for the purpose of this article.

⁵ The choice of courses for the Final Examination is to be made with consideration of courses chosen for the First Examination in the following manner: not more than three courses from any one of the four categories are to be chosen.

- (d) Candidates who have failed in any core course of the respective year Examination at the third attempt shall be recommended for discontinuation of studies under the provisions of General Regulations G 12.

Award of degree

Ar81 The degree of Master of Architecture may be awarded with Distinction, except that a candidate who presents himself more than once for Final Examination in any of the core courses shall not be eligible for distinction unless the Senate directs that he shall be so eligible because of exceptional circumstances.

SYLLABUSES FOR THE DEGREE OF MASTER OF ARCHITECTURE

Notes: Candidates on satisfactory completion of the MArch degree may apply to read for the MUD or MLA degree under a dual degree programme. Those interested in registering for the dual degree programmes shall consult the Head of Department well in advance for advice on their selection of courses in order to take account of the requirements and provisions as set out in the MUD and MLA degree regulations and syllabuses.

For the purpose of these syllabuses, the teaching of each course will be conducted within one semester.

FIRST YEAR: CORE COURSES

ARCH4001 & ARCH4002. Architecture and urban design I and II (15 units each)

These two courses aim to use the case-method to give candidates experience in problem-solving and decision-making. Projects will call for design integration of the many factors which shape our environment including legal-financial determinants and social conditions. Emphasis will be on complex buildings, and group work in urban design in Hong Kong and in the region. Sketch designs are required with emphasis on imagination, ideas and graphic communication. Field trips will be required for the course.

ARCH4003. Professional practice I (3 units)

The course covers the area of building, planning and contract law. Land ownership; lease conditions; landlord and tenant covenants; easements; rights of way; torts; Hong Kong town planning ordinances and procedures. Building ordinance, regulations and other related laws; codes of practice; submission of plans to various authorities. Buildings Ordinance Office's practice notes for Authorized Persons. Formation and discharge of contracts; enforcement; breach and remedies, arbitration; types of contract; standard private and public building contract forms; subcontracts; nominated subcontractors and suppliers; relevant statute and case law and other professional practice issues of HKIA and ARB.

ARCH4005. Building structures and systems (3 units)

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 the architects' point of view. The second, analytical part, develops the 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.

ARCH4006 Urban design principles (3 units)

This course is an introduction to the subject area of urban design, within the broader field of architecture. Topics covered include: city forms in history, urban design concepts and approaches, contemporary urban design issues, techniques and evaluation criteria for urban design inquiry, city building trends in Hong Kong, China and the region.

SECOND YEAR: CORE COURSES

ARCH5001 & ARCH5002. Architecture and urban design III and IV (15 units each)

These two final year courses conclude the curriculum by means of a design thesis where a report and a special study are also required. Candidates choosing to do a design thesis are required to demonstrate a mature understanding of their chosen topics during an oral examination. The requirements for dissertation are those normally required in a Master's programme; an oral examination is also required. The course is supplemented by sketch designs the purpose of which is the same as those in the previous year.

Field trips will be required for the course.

ARCH5003. Professional practice II (3 units)

Code of ethics and professional conduct; architects registration ordinance; architect/client/consultant/contractor relationship; project management; tendering procedures; bills of quantities (specifications); scheduling techniques; measurement conventions; organization and management and other professional practice issues of HKIA and ARB. Analysis of relevant cases in architectural practice with special reference to Hong Kong and Asia.

FIRST AND SECOND YEAR: ELECTIVE COURSES

There are four categories within each of which there are a number of courses available for selection by candidates in the Master's programme. These courses may be taken in either the First or Second Year:

- I: Architectural History and Theory;
- II: Architectural Management;
- III: Architectural Technology/CAAD;
- IV: Independent Studies

1. Candidates shall be guided in selecting these courses. It should be noted that not all courses in Categories I, II & III would be offered every year.
2. Not more than three courses are to be chosen from any one of the four Categories.
3. The Examination of the course may take the form of a written, practical or oral test, or by continuous assessment or by any combination of these. If a candidate is required to repeat a course because of failure but that particular course is not offered in the following year, his choice of an alternative course must have the approval of the Head of Department and the relevant course teachers.
4. For the purpose of examination, one course shall constitute a paper.

CATEGORY I: ARCHITECTURAL HISTORY AND THEORY

ARCH5101. Art in architecture (3 units)

The course attempts to build a bridge between candidates' professional architectural training and a broader education in the relevant liberal arts areas: in the psychology and philosophies of art and the history of art as it relates to architecture. Topics include an overview of aesthetic theories, on how ideas gain physical shape: the historical background, recent systematic theories, interpretation, criticism and the issue of art and linguistics versus architecture: from Aristotle, Hume, Kant, Hegel, Tolstoy, to Dewey, Langer, Goodman, Hirsch, Foucault, Arnheim, Moore, Lynch. The course will also address the issues of the social and environmental responsibilities of architecture, as well as the sentiments towards architectural conservation as societies seek to preserve their artistic and cultural identities.

ARCH5102. Chinese landscapes (3 units)

Beginning with a background survey of the varied landscapes of China – physical, functional, pictorial, cultural – the course proceeds to focus on an unique landscape type: the Chinese garden. Its tangible elements, both natural and man-made, together with its intentions, poetics and symbolisms will be analysed, leading to an appreciation of integrated compositions as exemplified by well-known gardens from that historical tradition. Theories on their aesthetics and design as well as their relationship with Chinese architecture, philosophy, literature and painting will also be explored and discussed.

ARCH5103. Public housing in urban development (3 units)

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; case studies.

ARCH5104. Tall buildings (3 units)

The course takes an inter-disciplinary approach towards the study of the design of tall buildings and consists of two parts. The first is a study of the history and theory of tall buildings from the Gothic period to the present. It will investigate the structural and technical development, together with the contemporary financial marketing techniques of highrise office space in the past decades. In short, it deals with all the forces that shape a highrise tower. The second part are in-depth case studies by individual candidates on exemplary buildings of the genre.

ARCH5105. The design of Chinese cities (3 units)

The course looks into the basic physical organization and development of traditional Chinese cities. It aims to introduce the comparative method in understanding how built forms, particularly public built forms, express certain aspirations of a culture, and how culture itself conditions their usage.

Field trips form an integral part of the course.

ARCH5106. The modern movement and beyond (3 units)

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 candidates' 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 certain architects.

ARCH5107. Vernacular architecture of Asia (3 units)

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

ARCH6104. Physical environment and site planning (3 units)

The course reviews theory and methods of land use, site planning and design, and focuses on the interaction with the physical environment. Topics include location and site analyses; land use planning and programme development; environmental standards and facilities; infrastructure for urban and rural development; site formation and landscape planning.

ARCH6108. Introduction to urban planning principles (3 units)

This course examines the framework of urban planning within which urban design is undertaken and implemented. Topics covered include urban planning theories, nature and function of planning process, plan-making at the regional, district and local levels. Case studies on Hong Kong planning and development issues will be presented.

ARCH7106. History and theory of landscape architecture I (2 units)

Illustrated lectures will be given on the historical development of landscape design in its various cultural contexts. Basic theory of design as related to landscape architecture will be dealt with as a basis for the studio course in landscape planning and design. Coursework may include studies on selected topics and a sketch book assignment.

ARCH7107. History and theory of landscape architecture II (2 units)

As a continuation of History and theory of landscape architecture I, this course continues to examine the historical development of landscape design in its various geographic and cultural context, including recent and contemporary designs. The theory and practice of contemporary landscape architecture will be dealt with. Coursework may include studies on selected topics and a sketch book assignment.

ARCH7108. Ecology and design (3 units)

This course covers the basic principles of ecology, with special emphasis on urban environments and the impact of construction and land development on natural processes.

ARCH8102. Cultural heritage and the built environment (3 units)

This course focuses on heritage buildings and their settings within a socio-cultural context. Built heritage in Hong Kong, Macau and Mainland China is emphasised.

CATEGORY II: ARCHITECTURAL MANAGEMENT

ARCH5201. Aspects of contract management (3 units)

Detail analysis and studies of standard contracts and sub-contracts for public and private works in Hong Kong. Typical problems in contract administration and project management, the role of the architect, project manager and the contractor will be examined. Claims, counter-claims, mediation and arbitration will be considered.

ARCH5202. Building economics and management (3 units)

The course deals with economic and cost factors relevant to the architectural design and construction processes. The course will also provide instruction in the theory and practice of appropriate techniques to achieve economy and efficiency. Topics include: feasibility analyses for projects, economic analysis for design, project cost analysis, financial monitoring and evaluation, case studies. A term paper on a relevant topic will be required.

ARCH5403. Design and management (3 units)

The course reviews management theory and practice and explores the implications for architectural design practices and their projects by examining modes of practice and project results.

ARCH6014 Business management in architectural practice (3 units)

The course covers fundamental principles for architects for their role as effective business managers in the building environment. Four areas will be examined: these include business management principles, accounting practice and financial management, personnel management and the marketing of professional services. Case studies and course work will form an integral part of the course.

ARCH6106 Financial analysis for urban projects (3 units)

The course develops skills essential for examining financial and marketing aspects of large privately funded urban design projects. Topics include cost and investment analysis for urban design; the financial and commercial context of development; the development process, marketable designs and the budget; urban development goals, resources and policy implications; impact of globalization.

ARCH7207. Landscape architectural practice II (2 units)

Continuing from Landscape architectural practice I, this course deals with the roles played by members in the project team in the post-contract stages, focusing especially on the work of landscape consultants in the process from work commencement to final completion. Coursework such as study reports and exercises, and office visits may be required.

ARCH8103. Cultural heritage: charters and legislation (3 units)

This course introduces the guiding principles and legal framework for heritage conservation, as established in international charters and regional legislation, and examines in particular detail their application in Hong Kong, Macau, Mainland China and Southeast Asia.

ARCH8104. Conservation management and practice (3 units)

This course focuses on the management problems unique to conservation projects in Hong Kong, Macau, Mainland China and Southeast Asia, and systematically explores the responsibilities of heritage practitioners in carrying out conservation work from project planning and implementation to post-project assessment and maintenance.

CATEGORY III: ARCHITECTURAL TECHNOLOGY/CAAD

ARCH5301. Comparative building appraisal and case studies (3 units)

The course aims at equipping candidates with the ability to appraise buildings in a methodical manner and to carry out case studies in architecture analytically so that a useful resource of reference material can be built up towards their design work.

ARCH5302. Computer graphics for architects (3 units) (also MLA course)

An in-depth study of computer graphics as an architectural design and presentation medium. Overview of computer graphic hardware, software and algorithm. Computer graphics standards. Internal structures of modellers and renderers.

ARCH5303. Sustainable building systems (3 units)

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.

ARCH5304. The computer in architecture (3 units)

An introduction to computer-related tools and techniques useful to architects in professional practice. It includes the use of computers for office automation and management as well as various design and analysis applications in architecture and related fields.

ARCH5305. Computer-aided architectural design methods (CAAD Methods) (3 units)

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.

ARCH5306. Changes in architectural depiction (3 units)

This course studies past, present and future ways of representing architectural space. Using a variety of sources, the class will elucidate ways in which modes of description affect perception. Digital and analogue tools will be used to reconstruct the geometry of both historical precedents and future structures, investigate representational systems and generate alternate realities.

ARCH7103. Landscape planting I (3 units)

This course helps candidates to acquire basic knowledge and skills commonly called for in landscape planting design and management. After an introductory overview of plant physiology, ecology and taxonomy, the course focuses on plant species used in landscape works in this region. Environmental, functional, amenity, health, ornamental and other purposes and parameters of landscape planting are then dealt with, followed by design applications, conventions and skills in the preparation of documents for landscape planting.

ARCH7104. Landscape technology I (2 units)

This course covers the basic theory and practice of site engineering for landscape architects including earthworks, grading, drainage, basic surveying and road alignment. Earth materials, soil mechanics, and site investigation will be reviewed as a basis to site engineering operations. Coursework may include regular assignments, site visits, and site study reports.

ARCH7105. Landscape technology II (2 units)

As a continuation of Landscape technology I, this course covers landscape architectural construction materials and landscape architectural construction design and detailing. Retaining walls, outdoor paving, lighting, fountains, and other landscape construction elements are included. Coursework may include regular assignments, site visits, and site study reports.

ARCH7203. Landscape planting II (3 units)

As a continuation of course ARCH7003 Landscape planting I, this course deals with the more technical, administrative and management aspects of landscape planting. Topics to be focused on include trees in cities and amenity turfgrass. The course concludes with maintenance and management considerations.

ARCH7205. Computer-aided design methods for landscape architecture II (2 units)

As a continuation of computer-aided design methods for landscape architecture I, this course provides a more specialized study of current computer technique and related knowledge. Landscape specific techniques such as three-dimensional terrain modeling, site planning and analysis, planting and irrigation, and geographic information systems will be covered. Philosophical and management aspects relating to the technology will also be discussed.

ARCH7208. Soils and the environment (3 units)

This course has been designed to encompass the essential ingredients of soil science in relation to vegetation and conservation relevant to landscape, planning and environmental practices. As far as possible, local examples and case studies are employed to illustrate the actual applications of knowledge to the preparation, amelioration and long-term management of soils. Field work and laboratory practical classes are integral parts of the course.

ARCH8105. Materials and techniques of conservation and maintenance (3 units)

This course investigates the properties and characteristics of traditional and modern materials commonly encountered in heritage structures in Hong Kong, Macau and Mainland China, and examines a range of techniques that are appropriate for conservation work in the Far East region.

CATEGORY IV: INDEPENDENT STUDIES

ARCH5401. Dissertation writing (3 units)

This course allows candidates to self-learn the techniques and methodologies of research and writing a dissertation. Supervisors will be available for consultation on appointment basis and candidates are expected to submit a dissertation (from ARCH 5001 and ARCH 5002) based on their study at the end of the course.

ARCH5402. Reading in architecture (3 units)

This course allows candidates to pursue reading on their own. They may choose materials from any culture and context related to the expositions of ideas and concepts in architecture and urbanism. Supervisors will be available for consultation on appointment basis and candidates are expected to submit a report based on their reading at the end of the course.