UNIVERSITY OF CAMBRIDGE

Programme Specification 2016-17

MASTER OF PHILOSOPHY IN ARCHITECTURE AND URBAN DESIGN (MAUD)

1	**Awarding body**	University of Cambridge
2	**Teaching institution**	Department of Architecture
3	**Accreditation details**	ARB/RIBA Part II
4	**Name of final award**	Master of Philosophy
5	**Programme title**	Architecture and Urban Design
6	**JACS code(s)**	K100, K110
7	**Relevant QAA benchmark statement(s)**	None
8	**Qualifications framework level**	7 (Masters)
9	**Date specification was produced**	June 2016

Teaching provision

The MPhil in Architecture and Urban Design (MAUD) degree has core teaching staff consisting of two Design Fellows, seven UTOs and with specialist input from visiting academics and professionals.

Facilities

Teaching takes place in the main Faculty premises, shared with the Department of History of Art, at 1-5 Scroope Terrace. The two Departments also share a Faculty Library of approximately 40,000 volumes. Students are all provided with a work space in a dedicated MAUD studio, and have access to network facilities throughout.

Educational aims

MAUD is a combined design led research degree and ARB/RIBA Part II accredited programme. The course brings together independent research through design with a structured technical and theoretical learning resource, and is designed for mature students that join the program with a distinct area of interest. The teaching structure helps each student derive relevant guidelines to their scientific, theoretical and design-led research; it provides access to specialists in various fields relevant to their studies, and a matrix of deliverables that foster an informed body of work underpinned by a sophisticated set of design and presentation techniques.

The course is structured by two terms focusing on developing the direction of the research and advancing design (residence in Cambridge), an interim field work period (elsewhere), and a third term focusing on the resolution of the design project and the completion of the thesis (residence in Cambridge). These complementary term components, together with the practice placement, provide an opportunity to explore distinct interests within design practice in various settings, whilst offering a sound framework to pursue meaningful research.

Candidates are free to choose a geographic area/region of their interest that frames their study throughout the programme. Following an initial familiarization with their chosen specific locality and a global assessment of the given environment at hand, students are expected to identify a technical/architectural issue that is indigenous or characteristic to the area/region of interest and holds potential to develop.

The focus shall be primarily with issues of contemporary construction, not excluding the consideration of historical or traditional building methods that are still prevalent. More

generally, candidates develop an understanding of the complexity of environments and their various aspects being inseparable from, and integrated with each other. More importantly, however, students will develop highly particular areas of expertise that they may draw on for the remainder of the course.

The programme positively encourages students to develop complex architectural proposals that meet RIBA/ARB criteria for Part II exemption and to acquire knowledge and develop and apply research skills in the following areas:

- role of environmental and socio-political issues in architecture and urban design
- The wider environmental, historical, socio-cultural and economic context related to architecture and cities
- The building science and socio-political theories associated with architecture and urban design
- Modelling and assessment of building and urban design
- Monitoring and surveying of buildings and urban environments
- Human behaviour, perception and comfort, and their role in building and urban characteristics
- Research methods and their application through academic and design methods.

Programme outcomes

The MAUD course is made up of full time learning and teaching in the Department and field work research. The first two terms deliver intensive teaching in the qualitative and quantitative aspects of architecture and urbanism, in parallel with supervised design projects and essays in cultural and technical aspects of the subject. This results in the submission of three *Essays* or equivalent work. Preparation of the *Design Thesis* will commence on enrolment and the choice of subject matter will help to determine the appropriate fieldwork framework and structure of supervision and interdisciplinary collaboration. Three recall periods during the *Fieldwork* period track progress of thesis work and monitor research. A *Fieldwork Logbook* records and interprets the experiences acquired at various stages. Contemporary issues in architectural research and its relationship to practice, relating to the thesis topics is captured in a project realisation *Essay* submitted at the end of the *Fieldwork* period. The return to the Department for the third and final term is dedicated to the completion of the *Design Thesis*. Students will have engaged in a rigorous research exercise and produce a well-resolved and argued design for a significant building or collection of buildings.

The course aims to develop the following skills:

A. Knowledge and Understanding

1. The topographical, social, political, economic and professional context that guides architectural design.

2. The histories and theories of architecture, environmental design and technology and the related disciplines of art and cultural studies.

3. Sustainability and the role of environmental design, construction and technology.

4. The regulatory requirements, including the needs of the disabled, health and safety legislation, building regulations and aspects of local and regional development control. Occupant perception, health and comfort.
5. Advanced constructional methods and structural theories.

6. Advanced principles and theories associated with environment conditions (visual,

thermal, etc); energy demand and supply; climatic design; and modelling, monitoring and assessment of building performance.

7. The design of cities and aspects of landscape design. The inter-relationship between people, buildings and the environment and an understanding of the need to relate buildings and the spaces between them to human, social and cultural needs and scale.

8. Procurement and delivery of architectural projects, and how these are defined and affected through a variety of contractual, organisational, political and economic structures.

9. Aspects of business management and administration related to running a design practice.

10. the professional duties and responsibilities of architects, as defined and described in the codes and standards relating to their professional practice.

Teaching and learning methods and strategies

Acquisition of skills (1-10) is through group lectures and seminars supported by internal supervisors and monitoring during *Fieldwork*. Skills (2,3,4,6,7) are acquired in seminars and design workshops during terms 1 and 2. Acquisition of skills (1,3,4,5,6,7) is imparted through major design work developed in term 1 and 2, the *Fieldwork* period and the *Design Thesis*. Acquisition of (4,6) is primarily through a series of hands-on workshops, offering support in computer modelling, physical laboratory testing and guidance on the use of environmental sensors and loggers. Skills (8,9,10) are specifically acquired through specialised supervision, collaboration coordinated by the course director, seminars and lectures in management, practice and law.

Assessment

Demonstration of the knowledge base is tested through a combination of workshop exercises, presentations, essays and design projects. Assessed coursework takes the form of 4 *Essays* or equivalent work 10% each), the *Fieldwork Logbook* (pass/fail) and the final *Design Thesis* (60%) consisting of a written submission and design portfolio.

B. Intellectual skills

1. To reason critically and analytically. Critically appraise complex briefs

2. To apply techniques and knowledge appropriately. Generate and systematically test, analyse and appraise design options, and draw rigorous conclusions

3. Adopt an appropriate philosophical approach, which reveals an understanding of theory in a specific cultural context.

4. To identify and solve problems. Devise structural and constructional strategies for a complex building or group of buildings, employing integrative knowledge of environmental, structural and constructional techniques and processes.
5. To demonstrate independence of mind. Critically appraise and form considered judgements about the special, aesthetic, technical and social qualities of a design within the scope and scale of a wider environment.

6. Identify and manage individual learning needs so as to prepare for and maintain professional standards commensurate with the academic and professional qualifications.

Teaching and learning methods and strategies

Intellectual skills (1-4) are developed throughout the teaching programme outlined above, and in the supervision context. The workshops and design exercises present the opportunity to apply the knowledge acquired (2,3) in a practical context. Individual research activities, oral presentations and written essays encourage students to identify and solve problems (4), and are supported by regular feedback sessions ('studio days'). These strategies, particularly through specialist supervisions, are built upon when the student embarks on their independent *Design Thesis* research programme (4,5). Skill 6 is refined both in an academic context guided by supervision and through the *Fieldwork* research.

Assessment

All the assessment methods – whether continual assessment through workshop activities, submitted essays, design reports, design projects and the design thesis – place a great emphasis on the student's ability to demonstrate his/her intellectual skills (1-6).

C. Practical Skills: students are able to:

1. Develop coherent integrated and sustainable architectural designs for complex buildings and groups of buildings

2. Integrate appropriate building technologies and environmental design with complex building forms.

3. Understand the contribution of other professionals in the design process in the context of current methods of working in the construction industry.

4. Use visual, verbal and written communication methods and appropriate media to represent the testing, analysis and critical appraisal of complex design proposals.

5. Apply codes of practice, health and safety and other legislative regulations that guide architectural design and more particularly innovations in environmental design.

6. Work collaboratively as part of a team but also develop work independently.

7. Produce documentation and reports which are clear, analytical and logical, covering a range of architectural issues of culture, theory and design. Prepare and compose brief technical reports and presentations.

8. Understand how cost control mechanisms operate within the development of an architectural project, how life-cycle cost projections may influence capital investment decisions.

Teaching and learning methods and strategies

Practical skills are developed principally through applied design project work, coursework, the teaching and learning programme outlined above, and during the *Fieldwork* period in which the students engage with the on site implications of their design research at different stages of development.

Assessment

Practical skills are primarily assessed through the examination of the technical analysis, design projects, project realisation essay, and the Pilot and Design Theses.

D. Transferable skills – students are able to:

1. Analyse and resolve complex problems
2. Communicate concepts effectively in writing, orally, and through documents, drawings and models
3. Use of contemporary computer software
4. Communicate with and respond to advice from expert consultants
5. Work effectively with others
6. Work autonomously in a self-directed manner.
7. Appraise and manage time and resources.

Teaching and learning methods and strategies

The course requires regular written and oral presentations (skill 1), and feedback is provided in the form of examiners' reports or reviewers' feedback respectively. Skills (1,4,6,7) are learnt, and guidance is provided, through supervisions – the course is intense and demands effective time management. Skills (2,3) are learned particularly at the early stages of the development of design research avenues, and are required at numerous stages and in presentations made throughout the course. Skills (2,5) are developed in group activities including workshop exercises and joint preparatory design work. Skill (6) is developed from the beginning when individual research foci are outlined and discussed with the supervisor, particularly for the essays, dissertations and design theses.

Assessment

Effective communication of research findings and design concepts is an important criterion in all areas of the students' work, and assessed at all stages. Skills (4,5,6,7) are not separately assessed but are reflected in the assessment of the general quality of the coursework. Skills (1,2,3) are assessed explicitly as part of the *Essays* and *Design Thesis*.

E. Research skills:

1. to identify key knowledge gaps and research questions
2. to retrieve, assess and identify information from a wide range of sources
3. to plan, develop and apply research methods
4. to apply key techniques and analytical skills to a new context
5. to report clearly, accurately and eloquently on findings

Teaching and learning methods and strategies

Students receive specific guidance and general seminars on research methods, the use of libraries, and writing techniques. An initial comprehensive bibliography is provided at the start of the course, which is supplemented by guidance on further reading in the seminars and supervisions. Guidelines on coursework essays and design thesis presentation are given in general terms and more specifically in supervisions. Research methods, techniques and analytical skills are developed through the workshops and coursework. Attendance is required on courses focussing on quantitative and qualitative research methods.

Assessment

Skills 1, 2 and 3 are primarily assessed through the design thesis, but also rehearsed in the other coursework. Skill 4 is a skill that is particularly relevant to and thus assessed in the

main design project as well as the design thesis (which combines written and design work). Skill 5 is a general skill, which is initially assessed in the essays (written), design projects (oral, written and drawn) and seminar papers (oral) and finally in the design thesis (written).

Programme structure

The MPhil is offered as a 2 year course comprising a 3 term, full time residential component and a maximum of 9 months' *Fieldwork* period in an approved institution, organisation, or practice after the second residential term. Entry qualifications are established in general terms by the University but in addition the following will be required:

i) a Part 1 qualification prescribed by the Architects Registration Board (ARB) and the Royal Institute of British Architects (RIBA) at a first class or high 2i level. Candidates are encouraged to take a year out but this is not mandatory. Those candidates without Part 1 status may be required to undertake the ARB's examination of equivalence for Part 1 status.

A prospective fieldwork programme is approved by the Department. Students will be assisted by the Department in finding an appropriate programme for this period during the first part of the course, with the Department directing suitable candidates towards practices, organisations and institutions which support their particular interests.

The course is configured to align with the MPhil in Architecture and Urban Studies (MAUS) for terms 1 and 2 through two seminar streams and specialised modules, combined with 'hands-on' workshops, and continuing design project work in studio, culminating in the *Design Thesis*. The seminar themes include:

1. Sustainability architecture and cities
2. Socio-politics and cities
3. Research methods (Applied statistics and anthropological methods)
4. Environmental design strategy
5. Monitoring and modelling
6. Urban peripheries
7. Negotiating boundaries and shared space
8. Materials and structures
9. Risk in the built environment
10. Urban change

'Studio Days' focus on group work and student presentations (e.g. design reviews, oral presentations, etc.) and are used both as preparation for and feedback from the technical sessions outlined above. Each student is appointed a supervisor who they see one hour every fortnight, or more frequently, throughout the year. Students attend research methods seminars in the Department . They are also encouraged to attend the Martin Centre research society lectures, ARCSOC student society lectures, and other Graduate School events. Furthermore, history, theory and environment lectures, classes and case studies in 2nd and 3rd year are available for the students, and course directors advise and recommend attendance where remedial teaching is beneficial or as appropriate.

Students are assessed through the following pieces of work:

- four *Essays* (or equivalent work) of 3,000 – 5,0000 words account for 40% of the course mark

- a *Fieldwork Logbook* (assessed as pass/fail)
- a *Design Thesis* accounting for the remaining 60% of the course mark. The Design Thesis consists of a 15,000 written dissertation (20%) and a design project (40%)

The written essays or equivalent work take the form of design and technical analysis submissions and presentations. The first *Essay* addresses aspects related to the first term's design work and is accompanied by a design proposal of a modest scale. This is submitted at the commencement of the 2nd term. *Essays 2 and 3* are research and design based respectively and relate to the chosen seminar module in Term 2 and are submitted at the beginning of the 3rd term. The fourth *Essay* is a study of the project realisatio40implications related to the thesis design and is submitted at the end of the *Fieldwork* period, along with the *Logbook* at the beginning of the 3rd Term in the second year. The *Design Thesis* – in the form of a 15,000 word (maximum) dissertation (20%) and a design project (40%) – is submitted at the end of the following academic year in May and July respectively and accounts for the remaining 60% of the course mark.

Indicators of Quality

RIBA validated and ARB prescribed course.

The Department was ranked first for Architecture by the Guardian's 2015 University Guide.

The University ensures high standards of teaching and learning in the following ways:

- The completion of Annual Quality Updates by each Faculty and Department, to enable central overview of provision and assist in dissemination of good practice.
- Scrutiny of the reports of External Examiners for all teaching programmes.
- Encouraging student engagement at both the local level, through involvement in Faculty and Departmental Committees, and at a central level by participation in the Postgraduate Teaching Experience Survey (PTES) and the Postgraduate Research Experience Survey (PRES).
- Holding reflective, centrally-coordinated, Learning and Teaching Reviews for all teaching institutions every six years to explore provision and suggest constructive courses of action.
- Mentoring, appraisal, and peer review of staff, and encouraging staff participation in personal development programmes.

Graduate Employability and career destinations

The Careers Service maintains links with relevant employers and takes into account employer needs and opinions in the services which it provides for students. The Careers Service also allocates a Careers Adviser to each College, Faculty and Department to act as a point of contact.