Islamic Azad University
UAE Branch

جامعة آزاد الاسلامية
فرع الامارات العربية المتحدة

Master of Architecture

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Master of Architecture (MA)

Program Description

The Master of Architecture is a graduate program at the Islamic Azad University (IAU)-UAE Branch that focuses on studying the architectural profession and practising researches. This program extends Bachelor of Architecture Engineering. The program will equip the graduate students with fundamental disciplinary knowledge and skills on architectural design, environmental design, socio-cultural approaches, construction, and practising research in architecture in the Iranian context and the global society.

This degree program aims to develop comprehensive knowledge and skills of architectural design and construction and apply conceptualisation, analysis, problem-solving, and critical thinking skills to ideate and change society. Graduates will achieve advanced adaption skills to the local and international context.

Aims

This course prepares the graduates with the skills they require to

- Understand the body of architectural knowledge and skills in the local and international context
- Develop their design skills and knowledge
- Develop their construction management abilities
- Practice research projects in architectural and socio-cultural context

Program Learning Objectives (PLO)

By the end of the program, graduates are expected to be empowered of:

Design Theories, Methods and Skills

PLO1: Discussing the main theories and methods in architectural design disciplines.
PLO2: Developing the architectural design practice and skills.

Theory and Knowledge

PLO3: Discussing original texts, essays and documents in architectural theory and history.
PLO4: Developing socio-cultural and historical-contextual studies in architecture.

Professional Practice

PLO5: Developing professional knowledge and skills in design and construction.
PLO6: Exploring professional possibilities for applying the expertise in productive employment.

Research Practice

PLO7: Identifying the research problems conducted by other scholars in a particular area of Architecture.
PLO8: Realising the quantitative and qualitative research methods employed in the systematic spatial study of the built environment.
PLO9: Conducting a testing-out research project (small or medium size) in the field and/or subfield of architecture.

Semester Schedule

Semester	Course	Course Type	Credits	Hours Per a Semester
1st	Research Methodology and Dissertation Preparation	Core Course	2	32
	Architectural Programming and Design Methods	Core Course	2	32
	Architectural Design I	Core Course	4	128
	Contemporary Architectural Theory Origins	Core Elective Course	2	32
2nd	Iranian Architecture Philosophy	Core Course	2	32
	Architectural Design II	Core Course	4	128
	Human Beings and Environment	Core Course	2	32
3rd	Architectural Rights and Rules	Core Course	2	32
	Architectural Design III	Core Course	4	128
	Construction Procedure	Core Course	2	64
4th	Final Design Project and Dissertation	Core Course	6	192
Total			32	832

Course Types

Category	Course Type	No.	Credits	Hours per a Semester
Master of Architecture (MA)	Core Course[1]	3	4	128
		5	2	32
		1	2	64
		1	6	Final Design Project and Dissertation 192
	General Elective Courses[2]	1	2	32
Total		11	32	832

[1]Core means those courses that are compulsory for the purposes of the qualification's major/specialisation.

[2] General Elective means the list of courses from which students may make any selection up to the total number of required credit hours or points. IAU-UAE Students are required to select at least 2 credits among the general elective courses

Core Courses

Research Methodology in Architecture

Credits		Hours per Week	
Theory	Practical	Theory	Practical
2	-	32	-
2		32	

The course “Research Methodology in Architecture” is designed for graduate students in the Master of Architecture Program. This course advances a framework, process, and compositional approach for designing a qualitative, quantitative, and mixed methods research proposal. The ascendency of qualitative research, the emergence of mixed methods approaches, and the continuing use of the traditional forms of quantitative designs among the graduate degree students have created a need for this course’s unique comparison of the three approaches to inquiry. This comparison begins with a preliminary consideration of the research paradigm, a literature review, and an assessment of the use of theory in research approaches. The course then addresses the elements of the research process: writing an introduction, stating a purpose for the study, identifying research questions and hypotheses, and advancing methods and procedures for data collection and analysis.

Research Methodology in Architecture develops and empowers those thinking and monitoring skills in writing. There is a particular focus on research methodology in Architecture, review of literature, an academic voice in writing, presenting the evidence, and the issues dealing with editing and revision of the sentences.

This course is sequenced as follows:

- A focus on proposal writing for a graduate degree thesis
- A focus on structuring a thesis proposal
- A focus on developing a review of literature
- A focus on research methodology in Architecture
- A focus on academic voice, making the argument flow and revision of the sentence structures

Learning Outcomes

On completion of this unit, you should be able to:

1. Improve your awareness by reflecting on what you already know about research proposals and thesis writing
2. Demonstrate an understanding of the background of the research, rationale of the study, review of literature, research methodology and their use in managing a self-regulated learning
3. Learn about academic writing skills
4. Apply the learning strategies that can enhance your ability to monitor your progress while writing a research proposal

Prior knowledge &/ or skills

As a student in this course, you will be encouraged to participate in your learning. Work submitted for assessment in this course may draw on knowledge and skills you can reasonably acquire before enrolling in this program. This includes understanding the structures of a research proposal, i.e. the introduction, review of literature, research methodology, data gathering, etc. You are highly encouraged to take responsibility for further developing these strategies and skills and applying them to your academic contexts and assignments. Students who do not possess and actively develop such knowledge and skills should not expect to achieve the same grades as those who do. These skills and attitudes will need to monitor yourself while writing a research proposal and regulating your learning.

Teaching strategies/learning approaches specific to this unit

In this course, you will be introduced to a range of learning strategies that can improve your writing skills and your engagement with graduate proposal writing that require good writing ability. This course will focus on developing your confidence by improving your writing strategies. The course will cover background, rationale, purpose, and aims, review of the literature, research methodology, significance, revision and editing of the work, and adopting attitudes that improve independent learning.

Learning resources required

Course Book(s)	Brick, J. (2011). *Academic culture: A student's guide to studying at university* (2nd Ed.). South Yarra, VIC: McMillan Education Australia. Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approach*. California, USA: SAGE Publications. Faigley, L. (2013). *The little Penguin handbook*. Frenchs Forest, NSW: Pearson Australia. Groat, L. N., & Wang, D. (2013). *Architectural research methods*. John Wiley & Sons.
Further Readings	Fellows, R. F., & Liu, A. M. (2015). *Research methods for construction*. John Wiley & Sons. Van den Brink, A., Bruns, D., Tobi, H., & Bell, S. (Eds.). (2016). *Research in landscape architecture: Methods and methodology*. Routledge.

Architectural Programming and Design Methods

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
2	-	32	-
2		32	

The course "Architectural Programming and Design Methods" is designed for the Master of Architecture students at the IAU-UAE branch. This course includes two parts, i.e. architectural programming and design theories, processes and methods. This course develops theoretical studies and procedural skills in pre-design, design and production.

Architectural Programming and Design Methods extends the course "Architectural Design Process" at the Bachelor of Architectural Engineering program.

This course also discusses the:

- Programming and planning
- Design thinking, problem-solving, critical thinking in design
- History of architectural design
- The design process and design methodology
- Form finding and from processing
- Ideation process, imagination, idea and concepts
- Design learning and design schools

This course is based on Lecture-Based learning (SBL), Project-Based Learning (PBL) and Essay Writing Learning (EWL).

Learning Outcomes

On completion of this unit, you should be able to:

1. Apply programming, planning and design methods in practice
2. Solve the problems in programs, designs, and process
3. Experiment with different types of form processing
4. Analyse design problems, design process and design methods
5. Examine design methods and form-finding process

Prior knowledge &/ or skills

N/A

Learning resources required

Course Book(s)	Jormakka, K., Schurer, O., Kuhlmann, D., (2017), *Basics Design Methods*, Birkhauser. Ganshirt, C., (2020), *Tools for Ideas: Introduction to Architectural Design*, Birkhauser. Hearn, M.F.H., (2003), *Ideas that Shaped Buildings*, MIT Press. Hershberger, R.G., (1999), *Architectural Programming and Predesign Management*, McGraw-Hill. Cherry, E., (1998), *Programming for Design: From Theory to Practice*; Wiley.
Further Readings	N/A

Architectural Design I

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
-	4	-	128
4		128	

The course "Architectural Design I" is designed for the Master of Architecture students at the IAU-UAE branch. It extends the courses "Architectural Design I, II, III, IV and V" at the Bachelor of Architectural Engineering program. This course includes briefing, programming and planning, design methods and form development process, and the analytical-synthetically approaches in design.

This course also discusses the:

- Briefing, programming and planning
- Design thinking, problem-solving, critical thinking in design
- Design methods and form-finding and processing development
- Ideation process, imagination, idea and concepts
- Analytical studies on context and problem situation

This course is based on Workshop learning (WL), Site Visit Learning (SVL), Case Study Base Learning (CSBL) and Project Base (PBL) learning.

Learning Outcomes

On completion of this unit, you should be able to:

1. Apply project program and brief programming
2. Use form processing techniques and methods
3. Analyse design context and situation
4. Assemble material-oriented spatial units
5. Design adaptive project on context and situation

Prior knowledge &/ or skills

N/A

Learning resources required

Course Book(s)	Burry, M. (2013), *Scripting Cultures: Architectural Design and Programming*, Wiley. Kanaani, M., Kopec, D. (2015), *The Routledge Companion for Architecture Design and Practice: Established and Emerging Trends*, Taylor & Francis. Pressman, A., (2012), *Designing Architecture: The Elements of Process*, Taylor & Francis. Thompson, A. (2012), *Architectural Design Procedures*, Taylor & Francis.
Further Readings	N/A

Iranian Architecture Philosophy (and Wisdom)

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
2	-	32	-
2		32	

The course "Iranian Architecture Philosophy (and Wisdom)" is designed for the Master of Architecture students at the IAU-UAE branch. This course discusses the philosophy and wisdom in Iranian architecture to clarify and develop philosophies and thinking processes in shaping architectural objects while shaping different spatial perception types.

This course also discusses the:

- Philosophers approach and human being thinking process
- History of wisdom in Iranian architecture
- Iranian and Muslim Philosophers
- Iranian architecture development through historical eras
- Subjectivity-objectivity in Iranian architecture
- Authenticity in Iranian culture, art and architecture

This course is based on Lecture Base learning (SBL), Project-Based Learning (PBL) and Essay Writing Learning (EWL).

Learning Outcomes

On completion of this unit, you should be able to:

1. Explain philosophy and wisdom roles in architecture
2. Demonstrate philosophies and architectural objects and perception interrelationship
3. Compare Iranian architectural objects in different historical context
4. Analyse Iranian art and architecture concerning philosophical ideas
5. Support new architectural design by using new philosophical ideas

Prior knowledge &/ or skills

Architectural Design I

Learning resources required

Course Book(s)	Bashiri, I., (2013), *Modern Iranian Philosophy: From Ibn Sīnā to Mullā Ṣadrā Shīrāzī*, Cognella Academic Publishing. Davaran, F., (2010), *Continuity in Iranian Identity: Resilience of a Cultural Heritage*, Taylor & Francis. Gharipour, M., (2015), *The Historiography of Persian Architecture*, Taylor & Francis. Khaghani, S. (2012). *Islamic Architecture in Iran: Poststructural Theory and the Architectural History of Iranian Mosques*. Bloomsbury Publishing. Pourjavady, R., (2018), *Philosophy in Qajar Iran*, Brill. Shirazi, M.R., (2018), *Contemporary Architecture and Urbanism in Iran: Tradition, Modernity, and the Production of 'Space-in-Between'*, Springer International Publishing.
Further Readings	N/A

Architectural Design II

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
-	4	-	128
4		128	

The course "Architectural Design II" is designed for the Master of Architecture students at the IAU-UAE branch. This course discusses the theoretical bases in the architectural design process, design creativity and architectural aesthetics.
Architectural Design II extends the course "Architectural Design I" at the Master of Architecture program.

This course also discusses the:

1. Design thinking and critical thinking process
2. Design studies and constructing theoretical design model
3. Design critiques and critical design
4. Ideation process, imagination, idea, concepts and design development
5. Develop theoretical and speculative precedents

This course is based on Workshop learning (WL), Site Visit Learning (SVL), Case Study Base Learning (CSBL) and Project Base (PBL) learning.

Learning Outcomes

On completion of this unit, you should be able to:

1. Identify theoretical bases in architectural design
2. Use theoretical models in form-finding and form developing process
3. Analyse program elements and structure
4. Assemble different ideas and concept making
5. Design an integrative project

Prior knowledge &/ or skills

Architectural Design I

Learning resources required

Course Book(s)	Kanaani, M., Kopec, D. (2015), *The Routledge Companion for Architecture Design and Practice: Established and Emerging Trends*, Taylor & Francis. Pressman, A., (2012), *Designing Architecture: The Elements of Process*, Taylor & Francis. Spence, K.C., (2016), *A Primer on Theory in Architecture*, Taylor & Francis. Spence, K.C., (2016), *A Primer on Theory in Architecture*, Taylor & Francis. Lindsay, G. (2020), *Contemporary Museum Architecture and Design: Theory and Practice of Place*, Routledge/Taylor & Francis Group. Thompson, A. (2012), *Architectural Design Procedures*, Taylor & Francis.
Further Readings	N/A

Human Beings and Environment

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
2	-	32	-
2		32	

The course "Human Beings and Environment" is designed for the Master of Architecture students at the IAU-UAE branch. This course discusses the relationship between Mans and natural and artificial environments theoretically and practically. This course emphasis on the adaptive built environment and global changes to the ecosystem.

This course also discusses the:

- Architecture as a built environment
- History of ecosystem changes and sustainability
- Adaptive operation by human beings
- Behavioural science and spatial behaviour studies
- Territories in all types of beings
- Aesthetics and built environment

This course is based on Lecture Base learning (SBL), Project-Based Learning (PBL) and Essay Writing Learning (EWL).

Learning Outcomes

On completion of this unit, you should be able to:

1. Discuss human beings effect on the natural and built environment
2. Interpret built environment in post-structuralism and deconstruction paradigm
3. Compare types of spatial behaviour and built environment
4. Analyse cognitive maps and clarify spatial behaviour and human territories
5. Develop built environment design models

Prior knowledge &/ or skills

Architectural Design I

Learning resources required

Course Book(s)	Basta, C., Moroni, S., (2013), *Ethics, Design and Planning of the Built Environment*, Springer Netherlands. Downs, R.M., Stea, D., (2017), *Image and Environment: Cognitive Mapping and Spatial Behavior*, Taylor & Francis. Stamps, A. E. (2013). *Psychology and the aesthetics of the built environment*. Springer Science & Business Media. Sussman, A., Hollander, J.B., (2014), *Cognitive Architecture: Designing for How We Respond to the Built Environment*, Taylor & Francis. Thomas, R., & Garnham, T. (2007). *The environments of architecture: Environmental design in context*. Taylor & Francis.
Further Readings	N/A

Architectural Rights and Regulations

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
2	-	32	-
2		32	

The course "Architectural Rights and Regulations" is designed for the Master of Architecture students at the IAU-UAE branch. This course discusses the laws, rules, and regulations related to architectural practice and professions and different types of national building codes, regulations, and rules interdisciplinary and beyond.

This course also discusses the:

- National and international building codes
- Civil and business caws
- Documentation and contract types
- Drawing standards and workshop drawing guidelines
- Property laws
- Affective institutes and agents in architectural practice and professions

This course is based on Lecture Base learning (SBL.

Learning Outcomes

On completion of this unit, you should be able to:

1. Classify laws, regulations and rules in architecture
2. Use national building codes and standards
3. Compare national and international building codes
4. Organise type of laws concerning architectural construction and design practice and profession
5. Support design and construction projects by laws and regulation

Prior knowledge &/ or skills

Architectural Design I

Learning resources required

Course Book(s)	Greenstreet, B., Greenstreet, K., (2005), *Law and Practice for Architects*, Elsevier Architectural Press. Greenstreet, R., Chappell, D., Dunn, M., (2012), *Legal and Contractual Procedures for Architects*, Taylor & Francis. Herrmann, R. F. (2012). *Law for Architects: What You Need to Know*. WW Norton & Company. Kingwell, M., (2021), *The Ethics of Architecture*, Oxford University Press, Incorporated.
Further Readings	National Building Codes (Iranian and the last editions)

Architectural Design III

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
-	4	-	128
4		128	

The course “Architectural Design III” is designed for the Master of Architecture students at the IAU-UAE branch. This course discusses the functional and technical design elements and integrated design using structural, mechanical and electrical components. It extends the course “Architectural Design II” at the Master of Architecture program.

This course also discusses the:

- Functional and technical design elements
- Design and fabrication studies
- Computational design approaches
- Ideation process and design development
- Develop integrative design model

This course is based on Workshop learning (WL), Site Visit Learning (SVL), Case Study Base Learning (CSBL) and Project Base (PBL) learning.

Learning Outcomes

On completion of this unit, you should be able to:

1. Identify types of design models
2. Use technical disciplines in architectural design
3. Organise design layers and differentiate main ideas
4. Construct contextual and integrative design models
5. Design an integrative project

Prior knowledge &/ or skills

Architectural Design II

Learning resources required

Course Book(s)	Alexander, Z.Ç., May, J., (2020), *Design Technics: Archaeologies of Architectural Practice*, University of Minnesota Press. Kanaani, M., Kopec, D. (2015), *The Routledge Companion for Architecture Design and Practice: Established and Emerging Trends*, Taylor & Francis. Moe, K., (2008), *Integrated Design in Contemporary Architecture*, Princeton Architectural Press. Pressman, A., (2012), *Designing Architecture: The Elements of Process*, Taylor & Francis. Thompson, A. (2012), *Architectural Design Procedures*, Taylor & Francis.
Further Readings	N/A

Construction Procedure

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
-	2	-	64
2		64	

The course "Construction Procedure" is designed for the Master of Architecture students at the IAU-UAE branch. This course discusses the technical, technological construction factors, themes and procedures in architecture. This course develops students' construction management skills and abilities.

This course also discusses the:

- Building elements
- Building systems
- Building construction management
- Technical drawing and detail design
- Workshop drawings and controls

This course is based on Lecture Base learning (SBL), Project-Based Learning (PBL) and Site Visit Learning (SVL).

Learning Outcomes

On completion of this unit, you should be able to:

1. Explain architectural elements, systems and joints
2. Use construction detail types
3. Organise construction phase and procedures
4. Compare types of building construction systems
5. Assemble construction detail, joints and systems

Prior knowledge &/ or skills

Architectural Design I

Learning resources required

Course Book(s)	Allen, E., Rand, P. (2016), *Architectural Detailing: Function, Constructability*, and Aesthetics, Wiley. Mansy, K., (2015), *Integrative Design: Building Systems for Architects and Architectural Engineers*, Cognella Academic Publishing. Mehta, M., Scarborough, W., Armpriest, D., (2013), *Building Construction: Principles, Materials, and Systems*, Pearson. Ottosson, H., (2016), *Practical Project Management for Building and Construction*, CRC Press.
Further Readings	N/A

Final Design Project and Dissertation

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
-	6	-	192
6		192	

The course "Final Design Project and Dissertation" is designed for the Master of Architecture students at the IAU-UAE branch. This course sums up all knowledge, design skills, research skills and construction abilities by a mid or large scale design project and a research dissertation.

It is important to note that the department specialised board members must approve the research topics, design project title and students' supervisory team members.

|This course also discusses the:

- Writing a dissertation based on the IAU academic styles
- Design and their complete technical drawings and documents
- Mapping the design process and design methods
- Presentation of the design studies and projects upon socio-cultural, technical, theoretical and integrative approaches
- Develop all skills and knowledge through these educational semesters

This course is based on Workshop learning (WL), Site Visit Learning (SVL), Case Study Base Learning (CSBL) and Project Base (PBL) learning.

Learning Outcomes

On completion of this unit, you should be able to:

1. Use theoretical and practical approaches in design
2. Use writing styles and research methods
3. Organise analysing project data and synthesis concept and ideas
4. Construct a design model to develop through design project
5. Design a research project

Prior knowledge &/ or skills

Architectural Design III

Learning resources required

Course Book(s)	Alexander, Z.Ç., May, J., (2020), *Design Technics: Archaeologies of Architectural Practice*, University of Minnesota Press. Kanaani, M., Kopec, D. (2015), *The Routledge Companion for Architecture Design and Practice: Established and Emerging Trends*, Taylor & Francis. Moe, K., (2008), *Integrated Design in Contemporary Architecture*, Princeton Architectural Press. Pressman, A., (2012), *Designing Architecture: The Elements of Process*, Taylor & Francis. Thompson, A. (2012), *Architectural Design Procedures*, Taylor & Francis.
Further Readings	N/A

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General Elective Courses

Contemporary Architectural Theory Origins

Credits		Hours per Week	
Theory	**Practical**	**Theory**	**Practical**
2	-	32	-
2		32	

The course "Contemporary Architectural Theory Origins" is designed for the Master of Architecture students at the IAU-UAE branch. This course includes theoretical studies in contemporary architecture and research on their origins and roots. Moreover, this course develops a theoretical framework for design projects.

Contemporary Architectural Theory Origins extends the course "Architectural Theory (Basics)" at the Bachelor of Architectural Engineering program.

This course also discusses the:

- Theories and speculative studies in architecture
- Concepts and themes in modern culture
- Concepts and themes in post-modern cultures
- Paradigms in architectural studies
- Reviews on theories origins
- The history of architectural theory in the modern era
- Theoretical models in the design process

This course is based on Lecture Base learning (SBL), Project-Based Learning (PBL) and Essay Writing Learning (EWL).

Learning Outcomes

On completion of this unit, you should be able to:

1. Classify types of theory and thesis (idea) in contemporary architecture
2. Discuss contemporary projects through theoretical studies
3. Interpret masterpiece and precedential architectural designs
4. Analyse modernity origins in architectural precedents
5. Critiques Iranian awards architecture through post-modern culture and approaches

Prior knowledge &/ or skills

N/A

Learning resources required

Course Book(s)	Callender, J., (2017), *Architecture History and Theory in Reverse: From an Information Age to Eras of Meaning*, Taylor & Francis. Crysler, C.G., A Cairns, S., Heynen, H., (2012), *The SAGE Handbook of Architectural Theory*, SAGE Publications. Poerschke, U., (2016), *Architectural Theory of Modernism: Relating Functions and Forms*, Taylor & Francis. Preiser, W.F.E., Davis, A.T., Salama, A.M., A Hardy, A., (2014), *Architecture Beyond Criticism: Expert Judgment and Performance Evaluation*, Taylor & Francis. Rendell, J., Hill, J., Dorrian, M., Fraser, M., (2007), *Critical Architecture*, Taylor & Francis. Smith, K., Guitart, M., (2013), *Introducing Architectural Theory: Debating a Discipline*, Taylor & Francis. Spencer, D., (2021), *Critique of Architecture: Essays on Theory, Autonomy, and Political Economy*, Birkhauser.
Further Readings	Iranian awards and competition documents.