

# Study Plan and Course Descriptions of Master of Science in Sustainable Interior Design (MSID) – Version 1.1

Ref: UC/ P 697/2024

As approved by University Council Decision No. UC/2523/09/2023-24 of meeting No. UC/09/2023-24 held on Wednesday the 24<sup>th</sup> of April 2024.

This document is to supersede the previous Study Plan and Course Descriptions of Master of Science in Sustainable Interior Design (MSID) as contained in the University Council approved document carrying reference number UC/ P 653/2023.

## Ahlia University COLLEGE OF ARTS & SCIENCE MASTER OF SCIENCE IN SUSTAINABLE INTERIOR DESIGN MSID

#### MSID - Foundation \* (6 CREDITS)

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite
MSID	501	Innovation and Design Process	3	0	3	
MSID	502	Environmental Systems for the Sustainable Interior	3	0	3	
					6	

<sup>1.</sup>If any student registered foundation course(s) according to the admission requirements, he/she must receive a grade of B or more in all foundation courses he/she registered.

### **MSID - FIRST YEAR (15 CREDITS)**

#### First Semester

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite
MSID	510	Innovative Building Materials and Finishes	2	0	2	
MSID	511	Energy Use and Thermal Comfort in Buildings	2	0	2	
MSID	512	Advanced Management of Information in a Building: BIM	1	4	3	
					7	

#### Second Semester

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite
MSID	513	Building Performance Assessment	2	0	2	
MSID	514	Sustainable Studio -Residential and Contract Environments	1	6	4	MSID 510
MSID	515	Lighting Controls and Systems Technology	2	0	2	
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#### **MSID - SECOND YEAR (21 CREDITS)**

### First Semester

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite
MSID	550	Research Methodology	2	2	3	
MSID	XXX	Major Elective I	Х	Х	3	
MSID	XXX	Major Elective II	Х	Х	3	
					9	

#### **Second Semester**

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite
MSID	599	Dissertation in Sustainable Design	0	24		MSID 550 AND Completion of at least 21 credits And Minimum CGPA 3
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A student can register in the dissertation course MSID 599 if the following conditions are satisfied:

- 1. Completed successfully at least 21 credit hours including MSID 550 Research Methodology.
- 2. Received a grade of B or more in MSID 550, and (3) attained a CGPA of at least 3.0.

<sup>2.</sup> The grades of the foundation courses are not considered in the CGPA. 3. These courses are not considered as part of the MSID programme.

#### LIST OF MAJOR ELECTIVE COURSES

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite
MSID	521	Environmental Life-Cycle Assessment in Interior Design	3	0	3	
MSID	524	Passive Design	3	0	3	
MSID	525	Intelligent Building Design	3	0	3	
MSID	526	Constructing the Green Interior	3	0	3	

### Ahlia University COLLEGE OF ARTS & SCIENCE MASTER OF SCIENCE IN SUSTAINABLE INTERIOR DESIGN **MSID**

#### MSID - Foundation \* (6 CREDITS)

	Code	Course Title	Lec	Lab	Cr	Prerequisite	
Course							
MSID	501	Innovation and Design Process	3	0	3		
This course applies students to understand how to utilize a sustainable design philosophy that appearages decisions at each phase of							

This course enables students to understand how to utilize a sustainable design philosophy that encourages decisions at each phase of the design process that will reduce negative impacts on the environment and the health of the occupants, without compromising the bottom line. It is an integrated, holistic approach that encourages compromise and tradeoffs. Such an integrated approach positively impacts all phases of a building's life cycle, including design, construction, operation, and decommissioning.

MSID	502	Environmental Systems for the Sustainable Interior	3	0	3
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This course covers the systems and materials integrated into one whole sustainable interior design environment. The aim is to be creating a healthy space, minimizing negative impacts on the environment and occupants, while maximizing the positive health, economic and social life cycle.

1. If any student registered foundation course(s) according to the admission requirements, he/she must receive a grade of B or more in all foundation courses he/she registered.

- 2. The grades of the foundation courses are not considered in the CGPA.
- 3. These courses are not considered as part of the MSID programme.

#### **MSID - FIRST YEAR (15 CREDITS)**

First Ser	nester							
Course	Code	Course Title	Lec	Lab	Cr	Prerequisite		
MSID	510	Innovative Building Materials and Finishes	2	0	2			
This course provides critical understanding of major building materials used in the sustainable construction industry. This course introduces learners to the analytical methods for determining appropriate choices for designing and selecting soft goods for a sustainable interior including upholstery frames, fillings, and finish textiles for furnishings, as well as window treatments and floor coverings are covered. Both new and re-manufactured goods are explored. At the end of this course learners will be able to apply knowledge in relation to Innovative Building Materials and Finishes								
MSID	511	Energy Use and Thermal Comfort in Buildings	2	0	2			
occupant	ts. The topi	ne fundamentals of energy demand in buildings wh cs covered here demonstrate how energy and wellb puildings, and ways to improve thermal comfort wh	eing a	re corr	elated t	o express building quality, the influences of		
MSID	512	Advanced Management of Information in a Building: BIM	1	4	3			
This course provides learners with the critical knowledge of digital transformation in the architecture, engineering, and construction (AEC) industry using Building Information Modelling (BIM) to enhance the building energy efficiency and cost control. At the end of this course the learner will be able to apply knowledge related to transformation in the architecture by using professional skills to analyze complex issues related to sustainable building performance.								
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#### **Second Semester**

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite
MSID	513	Building Performance Assessment	2	0	2	

This course provides students with the knowledge and skills to evaluate and assess the performance of buildings from a sustainability perspective. Learners will learn to analyze various aspects of building performance, including energy efficiency, indoor environmental quality, occupant comfort, and ecological impact. Learners will explore different rating systems and certifications, such as Leadership in Energy and Environmental Design (LEED) and WELL Building Standard and understand their criteria and metrics for evaluating sustainability performance.

MSID	514	Sustainable Studio -Residential and Contract Environments	1	6	4	MSID 510
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This design studio focuses on the challenge of designing a sustainable residential interior with a range of typologies: a free-standing single-family residence, a residence within a multiple dwelling, and different contract project types such as corporate, institutional, healthcare, hospitality, and retail. At the end of this course learners will be equipped with applied knowledge pertaining to sustainable studio, residential & contract Environments.

MSID	515	Lighting Controls and Systems Technology	2	0	2	
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This course covers the application of lighting principles to create project documentation encompassing lighting sources and controls. Utilizing their current studio projects, students will create lighting layouts, zoning diagrams, luminaire schedules, and controls specifications including code and certification requirements. At the end of this course the learner will be equipped with critical knowledge and understanding in relation to Lighting Controls and Systems Technology that could be applied in different design solutions.

<b>MSID - SECOND</b>	YEAR (	(21	<b>CREDITS</b>
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#### **First Semester**

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite		
MSID	550	Research Methodology	2	2	3			
design. I	This course provides students with the necessary knowledge and skills to conduct rigorous research in the field of sustainable interior design. It focuses on developing a deep understanding of research methodologies, data collection and analysis techniques, and ethical considerations in research. Students will learn how to develop research proposals and design research projects that address specific research questions or problems related to sustainable interior design.							
MSID	XXX	Major Elective I	Х	Х	3			
MSID	XXX	Major Elective II	Х	Х	3			
					9			

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#### **Second Semester**

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite
MSID	599	Dissertation in Sustainable Design	0	24		MSID 550 AND Completion of at least 21 credits And Minimum CGPA 3

This course will provide a structured supervised in-depth study on a pre-approved topic in the field of field of sustainable design. architecture and the built environment involving one of three methodologies: (1) a literature-focused study which aims to critically discuss the literature within a specified topic area; (2) a research focused study which aims to draw on practical data to assess critically a specified area or topic; or (3) a practical development study which aims to explore an area or ideas, or demonstrate a concept through appropriate practical development testing and critical analysis. The dissertation engages the learner in a progressive course of intellectual discourse involving problem identification of complex issues related to sustainable design, architecture and the built environment, methodology, the subsequent methodology may vary depending on the selected topic (archives, monitoring, modeling, thermal simulation, etc.), the learner will be required to conduct critical analysis and research, evaluation and recommendation that culminates in the production of manuscript subject to defense.

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A student can register in the dissertation course MSID 599 if the following conditions are satisfied:

- 1.Completed successfully at least 21 credit hours including MSID 550 Research Methodology.
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#### **LIST OF MAJOR ELECTIVE COURSES**

Course	Code	Course Title	Lec	Lab	Cr	Prerequisite
MSID	521	Environmental Life-Cycle Assessment in Interior Design	3	0	3	

The course provides knowledge and practical applications for the use of Environmental Life-Cycle Assessment in Interior Design. Learners will learn how to calculate and optimize the entire life cycle of a building, considering the different phases from production and use to end of life aiming to identify areas for improvement. At the end of this course learners will be equipped with critical knowledge and understanding a comprehensive of the influence of costs and environmental factors on the selection of sustainable design solutions and building system design.

MSID	524	Passive Design	3	0	3	
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This course will allow explorations of passive design principles. The learner will have the opportunity to concretely apply and test these principles using a holistic approach encompassing building technology, building physics, indoor climate and building services. The course also aims to show the potential of thermal and climatic constraints as a guide in explorations and development of configurations and solutions in case study projects. In addition, the course will allow the application of rules of thumb and tools (computer, hand calculations) - acquired in theoretical courses - for thermal balance, thermal comfort, and moisture safety predictions. These tools will be used to feed the iterative design process and inform wise design decisions. At the end of the course the learner will also learn to present passive concepts and strategies using graphic methods in a productive way supported by data (results from simulations or hand calculations).

MSID	525	Intelligent Building Design	3	0	3	

This course provides an overview of all aspects of intelligent buildings including history; design; components; construction; management strategies; economic implications; effects on the environment; and future trends. An intelligent building is in of an efficient and environmentally friendly design. An intelligent building also optimizes its occupants' circulation and networking, enhancing

their collaboration, productivity, and creativeness.							
MSID	526	Constructing the Green Interior	3	0	3		

This course focuses on the practical implementation and construction aspects of creating environmentally friendly and sustainable interior spaces. Learners will gain knowledge and skills related to sustainable construction techniques, materials, and systems specific to interior design in reducing environmental impact, improving energy efficiency, and promoting occupant health and well-being. At the end of this course learners will be equipped with critical and professional skills that could be applied while Constructing the Green Interion towards sustainable environment.

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