جامعة أم القرى
UMM AL-QURA UNIVERSITY

College of
Engineering and Architecture

Department of
Architecture

Course Specifications of
Architecture and Planning Programme

2022

Course Specifications of Architecture and Planning Programme

2022

Contents

Architecture

Year	Contact hours/ Term	Self-study hours/ Term	Total	ECTS
First year	**930**	**870**	**1800**	**60**
Second year	**880**	**920**	**1800**	**60**
Third year	**600**	**1200**	**1800**	**60**
Fourth year (Architecture)	**840**	**960**	**1800**	**60**
Fifth year (Architecture)	**720**	**1080**	**1800**	**60**

Urban Design

Year	Contact hours/ Term	Self-study hours/ Term	Total	ECTS
First year	**930**	**870**	**1800**	**60**
Second year	**880**	**920**	**1800**	**60**
Third year	**600**	**1200**	**1800**	**60**
Fourth year (Urban Design)	**820**	**980**	**1800**	**60**
Fifth year (Urban Design)	**680**	**1120**	**1800**	**60**

Urban Planning

Year	Contact hours/ Term	Self-study hours/ Term	Total	ECTS
First year	**930**	**870**	**1800**	**60**
Second year	**880**	**920**	**1800**	**60**
Third year	**600**	**1200**	**1800**	**60**
Fourth year (Urban Planning)	**820**	**980**	**1800**	**60**
Fifth year (Urban Planning)	**680**	**1120**	**1800**	**60**

General Architecture

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
1	1	ARC 1001	Architectural Formation Principles Studio 1	None				10			5	100	140	240	8
1	1	ARC 1302	Architectural Drawings and Presentation	None		2	3				3	50	55	105	3.5
1	1	ARC 1309	Ancient civilizations and Medieval Architecture	None		2					2	20	40	60	2
1	1	MTH 1601	Mathematics for Architects	None		2					2	20	25	45	1.5
1	1	ELCN1301	English Language 1	None		10					4	100	20	120	4
1	1	ICC 1201	Islamic Culture 1	None		2					2	20	10	30	1
1	2	ARC 1002	Architectural Formation Principles Studio 2	Architectural Formation Principles Studio 1				10			5	100	140	240	8
1	2	ARC 1306	Architectural Models	Architectural Drawings and Presentation		2	3				3	50	25	75	2.5
1	2	ARC 1308	Design Process and Methods	None		2					2	20	25	45	1.5
1	2	ARC 1303	Shade, Shadow and Perspective	Architectural Drawings and Presentation		1	3				2	40	50	90	3
1	2	ELCN1302	English Language 2	English Language 1		10					4	100	20	120	4
1	2	DS1101	Digital Technology	None		2					2	20	10	30	1
1	3	ARC 1003	Fundamental Design Principles Studio	Architectural Formation Principles Studio 2				10			5	100	155	255	8.5
1	3	ARC 1314	Buildings Design Standards 1	Design Process and Methods		3					3	30	45	75	2.5
1	3	ARC 140#	Elective Course 1	None		2					2	20	40	60	2
1	3	PHY 1115	Physics for Architects	None		2					2	20	40	60	2
1	3	ELCN1303	English Language 3	English Language 2		10					4	100	20	120	4
1	3	QR 1101	The Holy Quran 1	None		2					2	20	10	30	1
2	4	ARC 1004	Architectural Design Studio 1: Small Scale Public Buildings	Fundamental Design Principles Studio				10			5	100	125	225	7.5
2	4	ARC 1101	Building Construction Studio 1: Site Preparation	Fundamental Design Principles Studio				6			3	60	30	90	3
2	4	ARC 1203	Vector-based Drawing	None		1	3				2	40	35	75	2.5
2	4	ARC 1315	Introduction to Landscape Architecture	Fundamental Design Principles Studio		1	3				2	40	35	75	2.5
2	4	ARC 1310	Architecture of Islamic Civilization	None		2					2	20	25	45	1.5
2	4	CE 1632	Surveying	None		1	3				2	40	20	60	2
2	4	ICC 2202	Islamic Culture 2	Islamic Culture 1		2					2	20	10	30	1
2	5	ARC 1005	Architectural Design Studio 2: Medium Scale Public Buildings	Architectural Design Studio 1: Small Scale Public Buildings				10			5	100	125	225	7.5
2	5	ARC 1102	Building Construction Studio 2: Components of Building Structure	Building Construction Studio 1: Site Preparation				6			3	60	45	105	3.5
2	5	ARC 1205	I3D Modeling	Vector-based Drawing		1	3				2	40	35	75	2.5
2	5	ARC 1304	Local Architectural Heritage	None		2					2	20	25	45	1.5
2	5	ARC 1311	Renaissance and Pre-modern Architecture	None		2					2	20	25	45	1.5
2	5	ARC 1317	Environmental control Systems	Architectural Design Studio 1: Small Scale Public Buildings		2					2	20	40	60	2
2	5	CE 1450	Structure 1	None		2					2	20	25	45	1.5

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
2	6	ARC 1006	Architectural Design Studio 3: Vernacular Architecture	Architectural Design Studio 2: Medium Scale Public Buildings	Local Architectural Heritage			10			5	100	125	225	7.5
2	6	ARC 1103	Building Construction Studio 3: Components of Building Structure	Building Construction Studio 2: Components of Building Structure				6			3	60	45	105	3.5
2	6	ARC 1201	Creative Generative-Design	3D Modeling		1	3				2	40	35	75	2.5
2	6	ARC 1307	Buildings' Technical Installations	Architectural Design Studio 2: Medium Scale Public Buildings		2					2	20	25	45	1.5
2	6	ARC 1313	Principles of Urban Design	Architectural Design Studio 2: Medium Scale Public Buildings		2					2	20	25	45	1.5
2	6	ARC 141#	Elective Course 2	Architectural Design Studio 2: Medium Scale Public Buildings		2					2	20	40	60	2
2	6	QR 2102	The Holy Quran 2	The Holy Quran 1		2					2	20	25	45	1.5
3	7	ARC 1007	Architectural Design Studio 4: Conventional Structure Systems	Architectural Design Studio 3: Vernacular Architecture				10			5	100	125	225	7.5
3	7	ARC 1104	Building Construction Studio 4: Technical Drawings	Building Construction Studio 3: Components of Building Structure				6			3	60	60	120	4
3	7	ARC 1312	Principles of Urban Planning	Architectural Design Studio 3: Vernacular Architecture		2					2	20	40	60	2
3	7	ARC 1316	Structure Systems in Architecture	Building Construction Studio 3: Components of Building Structure		2					2	20	40	60	2
3	7	ARC 1109	Introduction to Urban Design Studio	Architectural Design Studio 3: Vernacular Architecture	Principles of Urban Design			8			4	80	100	180	6
3	7	CE 2452	Structure 2	Structure 1		2					2	20	25	45	1.5
3	8	ARC 1008	Architectural Design Studio 5: Long Spans	Architectural Design Studio 4: Conventional Structure Systems	Structure Systems in Architecture			10			5	100	125	225	7.5
3	8	ARC 1105	Building Construction Studio 5: Finishes	Building Construction Studio 4: Technical Drawings				6			3	60	60	120	4
3	8	ARC 1305	Sustainable Architecture	Architectural Design Studio 4: Conventional Structure Systems		2					2	20	40	60	2
3	8	ARC 142#	Elective Course 3	Architectural Design Studio 4: Conventional Structure Systems		2					2	20	40	60	2
3	8	ARC 1110	Introduction to Urban Planning Studio	Introduction to Urban Design Studio	Principles of Urban Planning			8			4	80	100	180	6
3	8	CE 2454	Structure 3	Structure 2		2					2	20	25	45	1.5
3	9	ARC 1500	Cooperative Training	Architectural Design Studio 5: Long Spans	Introduction to Urban Planning Studio					0	8	0	420	420	14

General Architecture (Electives)

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
1	3	ARC 1401	Digital Architectural Photography	None		2					2	20	40	60	2
1	3	ARC 1402	Arabic Calligraphy and Ornamentation	None		2					2	20	40	60	2
1	3	ARC 1403	Graphic Design Principles	None		2					2	20	40	60	2
2	6	ARC 1411	Vocabulary of Islamic Architecture	Architectural Design Studio 2: Medium Scale Public Buildings		2					2	20	40	60	2
2	6	ARC 1412	Contemporary Mosques Architecture	Architectural Design Studio 2: Medium Scale Public Buildings		2					2	20	40	60	2
2	6	ARC 1413	Architecture of the Two Holy Mosques	Architectural Design Studio 2: Medium Scale Public Buildings		2					2	20	40	60	2
3	8	ARC 1421	Introduction to Urban Spaces Analysis	Architectural Design Studio 4: Conventional Structure Systems		2					2	20	40	60	2
3	8	ARC 1422	Sustainable Landscape Architecture	Architectural Design Studio 4: Conventional Structure Systems		2					2	20	40	60	2
3	8	ARC 1423	Urban topics in Hajj and Umrah	Architectural Design Studio 4: Conventional Structure Systems		2					2	20	40	60	2

Architecture

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
4	10	ARC 2009	Architectural Design Studio 6: Sustainable Buildings	Architectural Design Studio 5: Long Spans	Sustainable Architecture			10			5	100	125	225	7.5
4	10	ARC 2107	Execution Design Studio of Residential Buildings	Building Construction Studio 5: Finishes				6			3	60	75	135	4.5
4	10	ARC 2204	Environmental Simulation	Architectural Design Studio 5: Long Spans		1	3				2	40	20	60	2
4	10	ARC 2327	Twentieth century Architecture	Architectural Design Studio 5: Long Spans		2					2	20	25	45	1.5
4	10	ARC 2329	Buildings Design Standards 2	Architectural Design Studio 5: Long Spans		2					2	20	25	45	1.5
4	10	ARC 2325	Interior Design	Architectural Design Studio 5: Long Spans		1	3				2	40	20	60	2
4	10	QR 3103	The Holy Quran 3	The Holy Quran 2		2					2	20	10	30	1
4	11	ARC 2010	Architectural Design Studio 7: Mixed-Use Buildings	Architectural Design Studio 6: Sustainable Buildings	Buildings Design Standards 2			10			5	100	125	225	7.5
4	11	ARC 2108	Execution Design Studio of Public Buildings	Execution Design Studio of Residential Buildings				6			3	60	75	135	4.5
4	11	ARC 2206	Digital Fabrication and Prototyping	Architectural Design Studio 6: Sustainable Buildings		1	3				2	40	20	60	2
4	11	ARC 2318	Creativity in Architecture	Architectural Design Studio 6: Sustainable Buildings		2					2	20	40	60	2
4	11	ARC 2320	Conservation of Architectural Heritage	Architectural Design Studio 6: Sustainable Buildings		2					2	20	40	60	2
4	11	ICC 3203	Islamic Culture 3	Islamic Culture 2		2					2	20	10	30	1
4	11	ARS 1500	Arabic Writing and Editing	None		2					2	20	10	30	1
4	12	ARC 2011	Architectural Design Studio 8: Conservation of Heritage Buildings	Architectural Design Studio 7: Mixed-Use Buildings	Conservation of Architectural Heritage			10			5	100	125	225	7.5
4	12	ARC 2106	Execution Design Studio of Blow-Ups Detailing	Execution Design Studio of Public Buildings				6			3	60	60	120	4
4	12	ARC 2322	Professional Practice for Architects	Architectural Design Studio 7: Mixed-Use Buildings		2					2	20	25	45	1.5
4	12	ARC 2323	Architecture of Mega Structures	Buildings Design Standards 2		2					2	20	40	60	2
4	12	ARC 2326	Applications of the Saudi Building Code in Architecture	Architectural Design Studio 7: Mixed-Use Buildings		2					2	20	40	60	2
4	12	ARC 240#	Elective Course 1: Architecture	Architectural Design Studio 7: Mixed-Use Buildings		2					2	20	40	60	2
4	12	0	Elective 1 (General Course)	None		2					2	20	10	30	1

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
5	13	ARC 2012	Architectural Design Studio 9: Professional Practice	Architectural Design Studio 8: Conservation of Heritage Buildings	Professional Practice for Architects			10			5	100	140	240	8
5	13	ARC 2324	Graduation Project Research: Architecture	Architectural Design Studio 8: Conservation of Heritage Buildings					2		2	20	100	120	4
5	13	ARC 2207	Computer-Based Architectural Project Management 1	Architectural Design Studio 8: Conservation of Heritage Buildings		1	3				2	40	35	75	2.5
5	13	ARC 2321	Smart Buildings	Buildings Design Standards 2		2					2	20	25	45	1.5
5	13	ARC 2319	Universal Design	Buildings Design Standards 2		2					2	20	25	45	1.5
5	13	ARC 2328	Biomimetic Architecture	Architectural Design Studio 8: Conservation of Heritage Buildings		2					2	20	25	45	1.5
5	13	ICC 4204	Islamic Culture 4	Islamic Culture 3		2					2	20	10	30	1
5	14	ARC 3013	Graduation Project Studio 1: Architecture	Graduation Project Research: Architecture	Architectural Design Studio 9: Professional Practice			14			7	140	205	345	12
5	14	ARC 3208	Computer-Based Architectural Project Management 2	Computer-Based Architectural Project Management 1		1	3				2	40	35	75	2.5
5	14	ARC 3321	Human and Environment	Architectural Design Studio 9: Professional Practice		2					2	20	40	60	2
5	14	ARC 3322	Resilient design	Architectural Design Studio 9: Professional Practice		2					2	20	40	60	2
5	14	QR 4104	The Holy Quran 4	The Holy Quran 3		2					2	20	10	30	1
5	14	0	Elective 2 (General Course)	None		2					2	20	10	30	1
5	15	ARC 3014	Graduation Project Studio 2: Architecture	Graduation Project Studio 1: Architecture				14			7	140	250	390	13
5	15	ARC 3320	Economics of Architectural Projects	Graduation Project Studio 1: Architecture		2					2	20	40	60	2
5	15	ARC 3323	Architecture of the Future	Smart Buildings		2					2	20	40	60	2
5	15	ARC 340#	Elective Course 2: Architecture	Graduation Project Studio 1: Architecture		2					2	20	40	60	2
5	15	0	Elective 3 (General Course)	None		2					2	20	10	30	1

Architecture (Electives)

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
4	12	ARC 2401	Photorealistic Rendering Techniques	Architectural Design Studio 7: Mixed-Use Buildings		2					2	20	40	60	2
4	12	ARC 2402	Computer Modeling in Building Construction	Architectural Design Studio 7: Mixed-Use Buildings		2					2	20	40	60	2
4	12	ARC 2403	Computerized Applications of Crowd Studies in Architecture	Architectural Design Studio 7: Mixed-Use Buildings		2					2	20	40	60	2
5	15	ARC 3401	Human Factors in Architecture	Graduation Project Studio 1: Architecture		2					2	20	40	60	2
5	15	ARC 3402	Architectural Criticism	Graduation Project Studio 1: Architecture		2					2	20	40	60	2
5	15	ARC 3403	Selected Topics in Architecture	Graduation Project Studio 1: Architecture		2					2	20	40	60	2

Urban Design

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
4	10	ARC 3031	Urban Design Studio 1: Existing Areas Development	Architectural Design Studio 5: Long Spans	Introduction to Urban Design Studio			10			5	100	125	225	7.5
4	10	ARC 3131	Urban Spatial Analysis Studio	Architectural Design Studio 5: Long Spans				6			3	60	75	135	4.5
4	10	ARC 3231	Urban Information Systems	Architectural Design Studio 5: Long Spans		1	3				2	40	35	75	2.5
4	10	ARC 3331	Urban Environmental Control	Architectural Design Studio 5: Long Spans		2					2	20	25	45	1.5
4	10	ARC 3332	Urban Morphology	Architectural Design Studio 5: Long Spans		2					2	20	25	45	1.5
4	10	ARC 3333	Housing	Architectural Design Studio 5: Long Spans		2					2	20	25	45	1.5
4	10	QR 3103	The Holy Quran 3	The Holy Quran 2		2					2	20	10	30	1
4	11	ARC 3032	Urban Design Studio 2: New Areas Development	Urban Design Studio 1: Existing Areas Development	Urban Morphology			10			5	100	125	225	7.5
4	11	ARC 3132	Urban Design Details Studio	Urban Design Studio 1: Existing Areas Development				6			3	60	75	135	4.5
4	11	ARC 3232	Urban Virtual and Augmented Reality	Urban Information Systems		1	3				2	40	20	60	2
4	11	ARC 3334	Advanced studies in Landscape Architecture	Urban Design Studio 1: Existing Areas Development		2					2	20	40	60	2
4	11	ARC 3335	Introduction to Sustainable Urban Design	Urban Design Studio 1: Existing Areas Development		2					2	20	40	60	2
4	11	ICC 3203	Islamic Culture 3	Islamic Culture 2		2					2	20	10	30	1
4	11	ARS 1500	Arabic Writing and Editing	None		2					2	20	10	30	1
4	12	ARC 3033	Urban Design Studio 3: Sustainability	Urban Design Studio 2: New Areas Development	Introduction to Sustainable Urban Design			10			5	100	125	225	7.5
4	12	ARC 3133	Landscape Architecture Studio	Urban Design Studio 2: New Areas Development	Advanced studies in Landscape Architecture			6			3	60	60	120	4
4	12	ARC 3336	Conservation of Heritage Sites	Urban Design Studio 2: New Areas Development		2					2	20	25	45	1.5
4	12	ARC 3337	Streets Planning and Design	Urban Design Studio 2: New Areas Development		2					2	20	40	60	2
4	12	ARC 3338	Humanizing the Cities	Urban Design Studio 2: New Areas Development		2					2	20	40	60	2
4	12	ARC 343#	Elective Course 1: Urban Design	Urban Design Studio 2: New Areas Development		2					2	20	40	60	2
4	12	0	Elective 1 (General Course)	None		2					2	20	10	30	1

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
5	13	ARC 3034	Urban Design Studio 4: Urban Heritage Conservation	Urban Design Studio 3: Sustainability	Conservation of Heritage Sites			10			5	100	140	240	8
5	13	ARC 3339	Graduation Project Research: Urban Design	Urban Design Studio 3: Sustainability					2		2	20	100	120	4
5	13	ARC 3340	Cities Centers	Urban Design Studio 3: Sustainability		2					2	20	40	60	2
5	13	ARC 3341	Urban Sociology	Urban Design Studio 3: Sustainability		2					2	20	40	60	2
5	13	ARC 3342	Principles of Urban Mobility	Urban Design Studio 3: Sustainability		2					2	20	25	45	1.5
5	13	CE 3513	Public Transportation Planning and Management	Urban Design Studio 3: Sustainability		2					2	20	25	45	1.5
5	13	ICC 4204	Islamic Culture 4	Islamic Culture 3		2					2	20	10	30	1
5	14	ARC 4035	Graduation Project Studio 1: Integrated Urban Design	Urban Design Studio 4: Urban Heritage Conservation	Graduation Project Research: Urban Design			14			7	140	205	345	12
5	14	ARC 3344	Crowd Management	Urban Design Studio 4: Urban Heritage Conservation		2					2	20	55	75	2.5
5	14	ARC 3345	Smart Urban Spaces	Urban Design Studio 4: Urban Heritage Conservation		2					2	20	40	60	2
5	14	ARC 3346	Urban Wayfinding	Urban Design Studio 4: Urban Heritage Conservation		2					2	20	40	60	2
5	14	QR 4104	The Holy Quran 4	The Holy Quran 3		2					2	20	10	30	1
5	14	0	Elective 2 (General Course)	None		2					2	20	10	30	1
5	15	ARC 4036	Graduation Project Studio 2: Integrated Urban Design	Graduation Project Studio 1: Integrated Urban Design				14			7	140	250	390	13
5	15	ARC 4347	Professional Practice of Urban Design	Graduation Project Studio 1: Integrated Urban Design		2					2	20	40	60	2
5	15	ARC 4348	Future Urbanism	Graduation Project Studio 1: Integrated Urban Design		2					2	20	40	60	2
5	15	ARC 444#	Elective Course 2: Urban Design	Graduation Project Studio 1: Integrated Urban Design		2					2	20	40	60	2
5	15	0	Elective 3 (General Course)	None		2					2	20	10	30	1

Urban Design (Electives)

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
4	12	ARC 3431	Temporary Urbanism	Urban Design Studio 2: New Areas Development		2					2	20	40	60	2
4	12	ARC 3432	Project Management for Planners	Urban Design Studio 2: New Areas Development		2					2	20	40	60	2
4	12	ARC 3433	Terminals Planning and Design	Urban Design Studio 2: New Areas Development		2					2	20	40	60	2
5	15	ARC 4441	Fundamentals of Real Estate Development	Graduation Project Studio 1: Integrated Urban Design		2					2	20	40	60	2
5	15	ARC 4442	Ecotourism Planning	Graduation Project Studio 1: Integrated Urban Design		2					2	20	40	60	2
5	15	ARC 4443	Selected Topics in Urban Design	Graduation Project Studio 1: Integrated Urban Design		2					2	20	40	60	2

Urban Planning

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
4	10	ARC 3051	Urban Planning Studio 1: Neighborhood	Architectural Design Studio 5: Long Spans	Introduction to Urban Planning Studio			10			5	100	125	225	7.5
4	10	ARC 3151	Urban Spatial Analysis Studio.	Architectural Design Studio 5: Long Spans				6			3	60	75	135	4.5
4	10	ARC 3251	Urban Information Systems.	Architectural Design Studio 5: Long Spans		1	3				2	40	35	75	2.5
4	10	ARC 3351	Urban Planning Theories	Architectural Design Studio 5: Long Spans		2					2	20	25	45	1.5
4	10	ARC 3352	Advanced studies in Landscape Architecture.	Architectural Design Studio 5: Long Spans		2					2	20	25	45	1.5
4	10	ARC 3353	Housing.	Architectural Design Studio 5: Long Spans		2					2	20	25	45	1.5
4	10	QR 3103	The Holy Quran 3	The Holy Quran 2		2					2	20	10	30	1
4	11	ARC 3052	Urban Planning Studio2: Residential District	Urban Planning Studio 1: Neighborhood	Housing			10			5	100	125	225	7.5
4	11	ARC 3152	Landscape Architecture Studio.	Urban Planning Studio 1: Neighborhood				6			3	60	75	135	4.5
4	11	ARC 3252	Advanced Urban Information Systems	Urban Information Systems		1	3				2	40	20	60	2
4	11	ARC 3354	Urban Transportation Planning	Urban Planning Studio 1: Neighborhood		2					2	20	40	60	2
4	11	ARC 3355	Urban Service Facilities	Urban Planning Studio 1: Neighborhood		2					2	20	40	60	2
4	11	ICC 3203	Islamic Culture 3	Islamic Culture 2		2					2	20	10	30	1
4	11	ARS 1500	Arabic Writing and Editing	None		2					2	20	10	30	1
4	12	ARC 3053	Urban Planning Studio 3: New City	Urban Planning Studio2: Residential District	Urban Service Facilities			10			5	100	125	225	7.5
4	12	ARC 3153	Detailed Urban Planning Studio	Urban Planning Studio2: Residential District				6			3	60	60	120	4
4	12	ARC 3253	Computer Applied Statistics	Urban Planning Studio2: Residential District		1	3				2	40	20	60	2
4	12	ARC 3356	Regional Planning	Urban Planning Studio2: Residential District		2					2	20	40	60	2
4	12	ARC 3357	Cities and Climate Change	Urban Planning Studio2: Residential District		2					2	20	25	45	1.5
4	12	ARC 345#	Elective Course 1: Urban Planning	Urban Planning Studio2: Residential District		2					2	20	40	60	2
4	12	0	Elective 1 (General Course)	None		2					2	20	10	30	1

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
5	13	ARC 3054	Urban Planning Studio 4: Regional Planning	Urban Planning Studio 3: New City	Regional Planning			10			5	100	140	240	8
5	13	ARC 3358	Graduation Project Research: Urban Planning	Urban Planning Studio 3: New City					2		2	20	100	120	4
5	13	ARC 3359	Urban Governance	Urban Planning Studio 3: New City		2					2	20	40	60	2
5	13	ARC 3360	Sustainable Cities	Urban Planning Studio 3: New City		2					2	20	40	60	2
5	13	ARC 3361	Urban Infrastructure	Urban Planning Studio 3: New City		2					2	20	25	45	1.5
5	13	CE 3513	Public Transportation Planning and Management.	Urban Planning Studio 3: New City		2					2	20	25	45	1.5
5	13	ICC 4204	Islamic Culture 4	Islamic Culture 3		2					2	20	10	30	1
5	14	ARC 4055	Graduation Project Studio 1: Urban Planning	Graduation Project Research: Urban Planning	Urban Planning Studio 4: Regional Planning			14			7	140	205	345	12
5	14	ARC 4363	Urban Economics	Urban Planning Studio 4: Regional Planning		2					2	20	55	75	2.5
5	14	ARC 4364	Urban Sociology and Population	Urban Planning Studio 4: Regional Planning		2					2	20	40	60	2
5	14	ARC 4365	Smart Cities	Urban Planning Studio 4: Regional Planning		2					2	20	40	60	2
5	14	QR 4104	The Holy Quran 4	The Holy Quran 3		2					2	20	10	30	1
5	14	0	Elective 2 (General Course)	None		2					2	20	10	30	1
5	15	ARC 4056	Graduation Project Studio 2: Urban Planning	Graduation Project Studio 1: Urban Planning				14			7	140	250	390	13
5	15	ARC 4366	Multicriteria Assessment of Urban Development Projects	Graduation Project Studio 1: Urban Planning		2					2	20	40	60	2
5	15	ARC 4367	Professional Practice of Planning	Graduation Project Studio 1: Urban Planning		2					2	20	40	60	2
5	15	ARC 446#	Elective Course 2: Urban Planning	Graduation Project Studio 1: Urban Planning		2					2	20	40	60	2
5	15	0	Elective 3 (General Course)	None		2					2	20	10	30	1

Urban Planning (Electives)

Year	level	Course Code	Course Title	Prereq 1	Prereq 2	Activity					Credit Hours	(15 weeks) - Hrs / term			
						Lecture	Practical	Studio	Project	Training		Contact	Self study	Total	ECTS
4	12	ARC 3451	Urban Indicators	Urban Planning Studio2: Residential District		2					2	20	40	60	2
4	12	ARC 3452	Technology and Desert Development	Urban Planning Studio2: Residential District		2					2	20	40	60	2
4	12	ARC 3453	Urban Development in Saudi Arabia	Urban Planning Studio2: Residential District		2					2	20	40	60	2
5	15	ARC 4461	Selected Topics in Urban Planning	Graduation Project Studio 1: Urban Planning		2					2	20	40	60	2
5	15	ARC 4462	Advanced Topics in Urban Transportation	Graduation Project Studio 1: Urban Planning		2					2	20	40	60	2
5	15	ARC 4463	Planning Decision-Making Systems	Graduation Project Studio 1: Urban Planning		2					2	20	40	60	2

Specifications of

General Architecture

Courses

Umm Al-Qura University
College of Engineering and Islamic Architecture
Department of Islamic Architecture

Architecture and Planning Program- Architecture

1 First Year

First Trimester	5 Architectural Formation Principles Studio 1 ARC 1001	3 Architectural Drawings and Presentation ARC 1302	2 Ancient civilizations and Medieval Architecture ARC 1309	2 Mathematics for Architects MTH 1601	4 English Language 1 ELCN1301	2 Islamic Culture 1 ICC 1201		18
Second Trimester	5 Architectural Formation Principles Studio 2 ARC 1002	3 Architectural Models ARC 1306	2 Design Process and Methods ARC 1308	2 Shade, Shadow and Perspective ARC 1303	4 English Language 2 ELCN1302	2 Digital Technology DS1101		18
Third Trimester	5 Fundamental Design Principles Studio ARC 1003	3 Buildings Design Standards 1 ARC 1314	2 Elective Course 1 ARC 140#	2 Physics for Architects PHY 1115	4 English Language 3 ELCN1303	2 The Holy Quran 1 QR 1101		18

2 Second Year

First Trimester	5 Architectural Design Studio 1: Small Scale Public Buildings ARC 1004	3 Building Construction Studio 1: Site Preparation ARC 1101	2 Vector-based Drawing ARC 1203	2 Introduction to Landscape Architecture ARC 1315	2 Architecture of Islamic Civilization ARC 1310	2 Surveying CE 1632	2 Islamic Culture 2 ICC 2202	18
Second Trimester	5 Architectural Design Studio 2: Medium Scale Public Buildings ARC 1005	3 Building Construction Studio 2: Components of Building Structure ARC 1102	2 3D Modeling ARC 1205	2 Local Architectural Heritage ARC 1304	2 Renaissance and Pre-modern Architecture ARC 1311	2 Environmental control Systems ARC 1317	2 Structure 1 CE 1450	18
Third Trimester	5 Architectural Design Studio 3: Vernacular Architecture ARC 1006	3 Building Construction Studio 3: Components of Building Structure ARC 1103	2 Creative Generative-Design ARC 1201	2 Buildings' Technical Installations ARC 1307	2 Principles of Urban Design ARC 1313	2 Elective Course 2 ARC 141#	2 The Holy Quran 2 QR 2102	18

3 Third Year

First Trimester	5 Architectural Design Studio 4: Conventional Structure Systems ARC 1007	3 Building Construction Studio 4: Technical Drawings ARC 1104	2 Principles of Urban Planning ARC 1312	2 Structure Systems in Architecture ARC 1316	4 Introduction to Urban Design Studio ARC 1109		2 Structure 2 CE 2452	18
Second Trimester	5 Architectural Design Studio 5: Long Spans ARC 1008	3 Building Construction Studio 5: Finishes ARC 1105	2 Sustainable Architecture ARC 1305	2 Elective Course 3 ARC 142#	4 Introduction to Urban Planning Studio ARC 1110		2 Structure 3 CE 2454	18
Third Trimester	8 Cooperative Training ARC 1500							8

Architecture Track

4 Fourt Year

First Trimester	5 Architectural Design Studio 6: Sustainable Buildings ARC 2009	3 Execution Design Studio of Residential Buildings ARC 2107	2 Environmental Simulation ARC 2204	2 Twentieth century Architecture ARC 2327	2 Buildings Design Standards 2 ARC 2329	2 Interior Design ARC 2325	2 The Holy Quran 3 QR 3103	18
Second Trimester	5 Architectural Design Studio 7: Mixed-Use Buildings ARC 2010	3 Execution Design Studio of Public Buildings ARC 2108	2 Digital Fabrication and Prototyping ARC 2206	2 Creativity in Architecture ARC 2318	2 Conservation of Architectural Heritage ARC 2320	2 Islamic Culture 3 ICC 3203	2 Arabic Writing and Editing ARS 1500	18
Third Trimester	5 Architectural Design Studio 8: Conservation of Heritage Buildings ARC 2011	3 Execution Design Studio of Blow-Ups Detailing ARC 2106	2 Professional Practice for Architects ARC 2322	2 Architecture of Mega Structures ARC 2323	2 Applications of the Saudi Building Code in Architecture ARC 2326	2 Elective Course 1: Architecture ARC 240#	2 Elective 1 (General Course)	18

5 Fifth Year

First Trimester	5 Architectural Design Studio 9: Professional Practice ARC 2012	2 Graduation Project Research: Architecture ARC 2324	2 Computer-Based Architectural Project Management 1 ARC 2207	2 Smart Buildings ARC 2321	2 Universal Design ARC 2319	2 Biomimetic Architecture ARC 2328	2 Islamic Culture 4 ICC 4204	17
Second Trimester	7 Graduation Project Studio 1: Architecture ARC 3013	2 Computer-Based Architectural Project Management 2 ARC 3208	2 Human and Environment ARC 3321	2 Resilient design ARC 3322	2 The Holy Quran 4 QR 4104	2 Elective 2 (General Course)		17
Third Trimester	7 Graduation Project Studio 2: Architecture ARC 3014	2 Economics of Architectural Projects ARC 3320	2 Architecture of the Future ARC 3323	2 Elective Course 2: Architecture ARC 340#	2 Elective 3 (General Course)			15

SCAN ME

Specialized Elective Courses

1	• Digital Architectural Photography	• Arabic Calligraphy and Ornamentation	• Graphic Design Principles
2	• Vocabulary of Islamic Architecture	• Contemporary Mosques Architecture	• Architecture of the Two Holy Mosques
3	• Introduction to Urban Spaces Analysis	• Sustainable Landscape Architecture	• Urban topics in Hajj and Umrah
1	• Photorealistic Rendering Techniques	• Computer Modeling in Building Construction	• Computerized Applications of Crowd Studies in Architecture
2	• Human Factors in Architecture	• Architectural Criticism	• Selected Topics in Architecture

University Elective Courses

- Specialized technology
- Health and Nutrition
- Entrepreneurship
- Work environment
- Hospitality
- Research and innovation

Credit Hours 255

In-person Online

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Architectural Formation Principles Studio 1**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1001			
Prerequisite Course(s)	None			
Semester Level	Level:	1	Year:	1
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	14	Total	24
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is an introduction to architectural formation. It focuses on definition of primary elements (point, line and plane), visual properties of form and space (materials, light, texture, pattern and colors), proportion and scale as well as ordering principles.

4. Intended Learning Outcomes (ILOs)

K1-c Demonstrate an understanding of the basics of architectural formation.
K1-o Demonstrate an understanding of the fine arts as an influence on the quality of the design.
S4-a Employ manual skills to develop and present projects.
S4-c Perform drawings efficiently and accurately.
V1-a Demonstrate self-discipline and punctuality.
V2-d Demonstrate persistence on achievement and distinction.
V2-e Complete tasks under pressure and within the expected time frame.

5. Contents

Content	Weight
Explanation of drawing instruments	10%
Sketch training: how to use different types of pencils and technical pens	10%
Primary elements: The point	10%
Primary elements: Straight and Jagged lines	10%
Primary elements: Curved line	10%
Primary elements: Two dimensional shapes (planes)	10%
Visual properties: Materials, light, texture, pattern and colors	10%
Proportion and scale: Module, proportioning systems, golden section, etc.	10%
Types of composition: Two and three dimensional forms	10%
Composition: Ordering principles (Axis, Symmetry, repetition, rhythm, etc.)	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

CHING, Francis D.K. (2015). Architecture, form, space & order. John Wiley & Sons, New York, USA.
Schrank, Brian. (2018), Principles of Visual Design, Color Theory, McGraw-Hill
CHING, Francis D.K. (2016), Design Drawing, John Wiley & Sons, New York, USA.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-c			■			■																															
K1-o						■																															
S4-a				■																															■		
S4-c																																			■		
V1-a																																					
V2-d																																					
V2-e																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Drawings and Presentation**		
Module Level	Bachelor of Architecture and Planning (General Architecture)		
Code	ARC 1302		
Prerequisite Course(s)	None		
Semester Level	Level: 1	Year: 1	
Responsible Person	….....		
Lecturer(s)	….....	…..	
	….....	…..	
	….....	…..	
	….....	…..	
Language	English/ Arabic		
Relation to Curriculum	Required Course		

2. ECTS/ Workload

Workload Hours per Week	Contact	5	Self-study	5.5	Total	10.5
Credit Points	4	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Architectural graphics are key tools for conveying design through representation on paper or on screen, and this course is the ultimate guide to mastering the manual skill. This course is an essential guide offers a comprehensive introduction to using graphic tools and drafting conventions to translate architectural ideas into effective visual presentations. This course includes information on orthographic projection in relation to 3D models, and explanations of scale and dimensioning.

4. Intended Learning Outcomes (ILOs)

K1-d Demonstrate an understanding of various ways of representing the built environment.

S4-a Employ manual skills to develop and present projects.

S4-c Perform drawings efficiently and accurately.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Drawing tools and materials	10%
Architectural drafting: The line	10%
Architectural drawing systems: Projection drawing and Pictorial systems	10%
Multiview drawings: Plans and site plans	10%
Multiview drawings: Section	10%
Multiview drawings: Elevations	10%
Paraline drawings: Isometric drawings	10%
Architectural drawing systems: Communication design ideas	10%
Rendering context (people, furniture, vehicles, landscaping, etc.)	10%
Architectural presentations	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Drawing Exam • Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Ching, F. (2015). Architectural Graphics. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-d																																			■		
S4-a				■																															■		
S4-c																																			■		
V1-b																																					

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Module Specifications P44

1. General Information

Module Name	**Ancient civilizations and Medieval Architecture**		
Module Level	Bachelor of Architecture and Planning (General Architecture)		
Code	ARC 1309		
Prerequisite Course(s)	None		
Semester Level	Level: 1	Year: 1	
Responsible Person	……		
Lecturer(s)	……	……	
	……	……	
	……	……	
	……	……	
Language	English/ Arabic		
Relation to Curriculum	Required Course		

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces students to world architecture from prehistory times to the end of the medieval period. It helps understanding the various cultural, technological and aesthetic aspects through history. The course focuses on the architecture in Mesopotamian, ancient Egyptian, Greek, Roman, Byzantine and Gothic architecture. Furthermore, it discusses traditional architecture of China and Japan.

4. Intended Learning Outcomes (ILOs)

K1-e Demonstrate an understanding of the history of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Prehistoric settlements and megalith constructions	10%
Ancient Mesopotamian architecture	10%
Ancient Egyptian architecture: Old kingdom	10%
Ancient Egyptian architecture: Middle and new kingdom	10%
The Greek architecture: Ancient, classical and Hellenistic period	10%
Traditional architecture of China and Japan	10%
The Roman architecture	10%
Early Christian and Byzantine architecture	10%
Early Medieval and Romanesque architecture	10%
Gothic architecture	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Moffett, M. et al. (2008). A world History of Architecture. McGraw-Hill.
Fletcher, B. (2020). Sir Banister Fletcher's Global history of architecture. Bloomsbury Visual Arts.
Ching, F. et al. (2017). A global history of architecture. Wiley.
Richard, W. (2000). The Complete Temples of Ancient Egypt. Thames & Hudson.
Tomlinson, R. (1995). Greek and Roman Architecture. British Museum Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-e																		■										■										
K1-h																■																						
S3-a																																					
V2-d																																					

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Module Specifications P44

1. General Information

Module Name	**Mathematics for Architects**		
Module Level	Bachelor of Architecture and Planning (General Architecture)		
Code	MTH 1601		
Prerequisite Course(s)	None		
Semester Level	Level: 1	Year: 1	
Responsible Person	….....		
Lecturer(s)	….....	…..	
	….....	…..	
	….....	…..	
	….....	…..	
Language	English/ Arabic		
Relation to Curriculum	Required Course		

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course focuses on selected topics in differentiation and Integration. It also focuses on analytic geometry which is geometry within a coordinate system. While there are many coordinate systems. This course focuses on the three most coordinate systems used in academia: Cartesian (Rectangular), Cylindrical, and Spherical.

4. Intended Learning Outcomes (ILOs)

K4-a Demonstrate an understanding of mathematical concepts relevant to the built environment .

S1-b Solve complicated problems associated with the built environment.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Linear equations, Slope formula, Measuring gradients	10%
The Derivative and Rules of differentiation	10%
Derivatives of Trigonometric Functions	10%
Derivative Rules and Curve Sketching	10%
Integration: Definite and indefinite integrals	10%
Integration of trigonometric functions	10%
Finding the area under curve and between curves	10%
Trapezoidal and Simpson's rule	10%
Analytic Geometry: Circles and the Parabola	10%
The Ellipse and the Hyperbola	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Strang, G. (2017). Calculus. Wellesley.

Serdarushich, V. (2014). Analytic Geometry. Nabla Ltd.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K4-a																																					
S1-b		■																																			
V1-a																																					
V2-d																																					

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Module Specifications P44

1. General Information

Module Name	**English Language 1**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ELCN1301			
Prerequisite Course(s)	None			
Semester Level	Level:	1	Year:	1
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	2	Total	12
Credit Points	4	CPs.				
Credit Hours	4	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

English Language I is a single-level, English for General Purposes (EGP) course. All students who are admitted to Bachelor in the Non-EMI Colleges (College of Islamic Economics and Finance, Department of Islamic Architecture) are required to take this course in the first semester of the first year of their program. The course is offered in 10 weeks with a 10-hour-per week teaching plan covering the four language skills. It intends to develop students' knowledge and ability of English language in all major skills which include reading, writing, listening, and speaking, as well as in sub-skills including grammar, vocabulary, and pronunciation.

4. Intended Learning Outcomes (ILOs)

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Unit 1: Connections	10%
Unit 2: Work and Study	10%
Unit 3: Let's move	10%
Unit 4: Good times	10%
Unit 5: Firsts and lasts	10%
Unit 6: Buy now, pay later	10%
Unit 7: But first, food	10%
Unit 8: Trips	10%
Unit 9: Looking good, Unit 10: Risky business	10%
Unit 11: Me, online, Unit 12: Outdoors	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	100	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Clandfield, L., et al. (2019). Evolve 2 Special Edition: Student's Book with Practice Extra. Cambridge Uni. Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
S5-a																																					
V1-a																																					
V2-b																																					
V2-d																																					

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Module Specifications P44

1. General Information

Module Name	**Architectural Formation Principles Studio 2**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1002			
Prerequisite Course(s)	Architectural Formation Principles Studio 1			ARC 1001
Semester Level	Level:	2	Year:	1
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	14	Total	24
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course encompasses fundamentals of the definitions, concepts, analyses, development and presentation of architectural forms. Students learn how to create a simple architectural form using ordering principles. They learn how to compose a modular capsule building using different materials such as paper, wood, foam, etc. Furthermore, the studio introduces an Introduction to architectural drawings and design fundamentals through design of simple one story building. Students are asked to submit these two projects that include properly executed architectural drawings.

4. Intended Learning Outcomes (ILOs)

K1-c Demonstrate an understanding of the basics of architectural formation.
K1-d Demonstrate an understanding of various ways of representing the built environment.
S1-c Create innovative concepts and forms for the built environment.
S4-a Employ manual skills to develop and present projects.
S4-c Perform drawings efficiently and accurately.
V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Formation Principles (Composition of three dimensional forms)	10%
Project 1: Applications of geometrical tridimensional forms	10%
Composition of modular capsule form	10%
Architectural drawings: plan, section and site plan	10%
Architectural drawings: elevation and Isometric	10%
Project 2: Introduction to architectural drawings and design fundamentals	10%
Architectural drawing of plan	10%
Architectural drawing of sections	10%
Architectural drawing of elevations and site plan	10%
Architectural drawing of isometric	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

CHING, F. (2016). Design Drawing. John Wiley & Sons.
CERVER, F. (2010). Drawing For Beginners. Konmann.
CHING, F. (2015). Architectural Graphics 3rd ed., John Wiley & Sons.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-c			■			■																															
K1-d																																			■		
S1-c	■																																				
S4-a				■																															■		
S4-c																																			■		
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Architectural Models**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1306			
Prerequisite Course(s)	Architectural Drawings and Presentation			ARC 1302
Semester Level	Level:	2	Year:	1
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	5	Self-study	2.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Architectural models are one of the main means by which an architect invents and develops his design. Furthermore, they serve as a bridge between the idea and its realization. This course presents the fundamentals of architectural models. Students learn how to think of and build architectural models using different materials.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S1-c Create innovative concepts and forms for the built environment.

S4-b Execute physical models efficiently.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
History, model types and scale of architectural models	10%
Equipment, tools and materials of model making	10%
Model's net	10%
Cutting materials and basic assemblage	10%
Generating Ideas: Additive/Subtractive drawing strategy	10%
Working with plan and elevation drawings strategy	10%
Working with concept drawings strategy	10%
Reuse and found objects strategy	10%
Oblique folding	10%
Exploration of material behavior	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Practical Exam • Final Submission of a project			
Examination Requirements	Equipped Studio			

8. Reading list

MILLS, C. (2011). Designing with models: A Studio Guide to Arch. Process Models. John Wiley & Sons.
Trudeau, N. (1995). Professional Model Making. Watson.
Oswald, A. (2008). Architectural Models. Dom Publishers.
Jackson, P. (2011). Folding Techniques for Designers: From Sheet to Form. Laurence King.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S1-c	■																																				
S4-b																																			■		
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Design Process and Methods**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1308			
Prerequisite Course(s)	None			
Semester Level	Level:	2	Year:	1
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course provides a deeper understanding of the process and methods applied in the architectural design. It covers the analysis of space program, site analysis, the design philosophy, design concept, and the development of human-centred design proposals. The application of this process will be on a housing unit. Students learn to build solid understanding of when and how design decisions are made in the process. They also work on developing their own visualization skills and manual sketching techniques.

4. Intended Learning Outcomes (ILOs)

K1-a Explain processes, methods and fundamentals of designing the built environment.

K1-b Define functional requirements and relationships for different sectors of the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction of the course and terms' definitions	10%
The methods of design process	10%
Prior to the design stage: Preparing the space program	10%
Site analysis: Data collection and interpretations	10%
Site analysis: Design decisions	10%
Spatial analysis	10%
The design concept	10%
The architectural module	10%
The space and spatial relationships: Specifications and components	10%
The space and spatial relationships: Diagrams and matrices	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Abououf, T. (2014). Site Analysis. Sky for Book.
Abououf, T. (2015). Design Concept. Sky for Book.
Lagro, J. (2020). Site Analysis. John Wily & Sons.
White, E. (2013). Site analysis. ArchiBasX Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-a			■																							■												
K1-b									■		■				■																							
S1-d			■	■																					■												
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Shade, Shadow and Perspective**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1303			
Prerequisite Course(s)	Architectural Drawings and Presentation			ARC 1302
Semester Level	Level:	2	Year:	1
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	5	Total	9
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course illustrates perspective systems and their use in the representation of three-dimensional architectural forms. Key concepts include one-point, two-point perspectives and techniques for drawing exterior and interior perspectives. Furthermore, the course illustrates casting shades and shadows on two and three dimensional drawings while using different rendering techniques such as pencils, colored pencils, markers, pens and ink, etc.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S4-a Employ manual skills to develop and present projects.

S4-c Perform drawings efficiently and accurately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Linear perspective	10%
Perspective projection and element	10%
One-point perspective system	10%
Section perspectives	10%
Two-point perspective system: measuring point method	10%
Perspective variables	10%
Inclined lines, Stairs and circles	10%
Reflections	10%
Casting shades and shadows: 2D drawings	10%
Casting shades and shadows: 3D drawings	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Drawing Exam • Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Ching, F. (2015). Architectural Graphics. Wiley.

Koller, E. (2008). Light, Shade and Shadow. Dover Publications.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S4-a				■																															■		
S4-c																																			■		
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**English Language 2**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ELCN1302			
Prerequisite Course(s)	English Language 1			ELCN1301
Semester Level	Level:	2	Year:	1
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	2	Total	12
Credit Points	4	CPs.				
Credit Hours	4	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

English Language 2 is a single-level, English for General Purposes (EGP) course. All students who are admitted to Bachelor in the Non-EMI Colleges (College of Islamic Economics and Finance, Department of Islamic Architecture) are required to take this course in the second semester of the first year of their program. The course is offered in 10 weeks with a 10-hour-per week teaching plan covering the four language skills. It intends to develop students' knowledge and ability of English language in all major skills which include reading, writing, listening, and speaking, as well as in sub-skills including grammar, vocabulary, and pronunciation.

4. Intended Learning Outcomes (ILOs)

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Unit 1: Who We Are	10%
Unit 2: So Much Stuff	10%
Unit 3: Smart Moves	10%
Unit 3: Smart Moves	10%
Unit 4: Think First	10%
Unit 4: Think First	10%
Unit 5: And then ...	10%
Unit 5: And then ...	10%
Unit 6: Impact	10%
Unit 6: Impact	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	100	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Hendra, L.,Et al. (2019). Evolve 3: Special Edition. Student's Book with Practice Extra. Cambridge Uni. Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
S5-a																																					
V1-a																																					
V2-b																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Digital Technology**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	DS1101			
Prerequisite Course(s)	None			
Semester Level	Level:	2	Year:	1
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	1	Total	3
Credit Points	1	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course aims to introduce the student to the basic concepts of digital devices, software, and their concepts and applications. It includes covering the following topics: operational computer systems, definitions of software engineering, big data warehouse, and cloud services, the various technologies that companies use to build and operate the application of any project, an introduction to the most important mobile phone applications and networks and how to transfer information, the basics of the Internet of Things, an introduction to robotics technology and how to simulate Human intelligence and introducing the importance of information awareness and information security.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S5-a Communicate effectively with others.

S5-b Utilize computer programs effectively in communication.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Operational computer systems	10%
Emerging technologies and online working	10%
Information bases and cloud services	10%
Various techniques for building and running computer applications	10%
Mobile applications	10%
Internet and networks	10%
Artificial intelligence	10%
Internet of Things and Robotics technology	10%
Digital transformation	10%
Information awareness and information security	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Giuseppe, P. (2020). On the Foundation of Computing. Oxford University Press.

خالد بكرو (2021). أساسيات الحوسبة.

(2019) الأمن السيبراني مفهومه وخصائصه وسياسته – خالد سعد الشايع

(2018) الحاسب الآلي واستخداماته في التعليم – أولفت محمد فودة

(2018) اتجاهات في آمن المعلومات وأنواعها – ساري محمد الخالد

(2021) فضاءات البيانات الضخمة – عبد مرزوق الظهوري وفاطمة سعيد سالم

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S5-a																																			■		
S5-b																																			■		
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Fundamental Design Principles Studio**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1003			
Prerequisite Course(s)	Architectural Formation Principles Studio 2			ARC 1002
Semester Level	Level:	3	Year:	1
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	15.5	Total	25.5
Credit Points	9	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is an introduction to the fundamentals of architectural design through applying design process and methods. Students begin by studying different building types and their relationship to form and function. Finally, they apply the principles of designing housing units while keeping in mind the social and cultural aspects of the Saudi society.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.
K1-d Demonstrate an understanding of various ways of representing the built environment.
S1-a Make design decisions considering user requirements and various environmental impacts.
S4-a Employ manual skills to develop and present projects.
V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
The design process definition	10%
Functional relationships	10%
Principles of house design	10%
Introduction to the housing unit project	10%
Development of housing unit plans	10%
Geometric projection and architectural design of sections	10%
Architectural character and elevations design	10%
Geometric projection and architectural design of elevations	10%
Isometric or perspective drawing of the housing unit	10%
Following up the implementation	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
De Chiara, J., Panero, J., & Zelnik, M. (2011). Time-saver standards for housing and residential development. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-d																																			■		
S1-a				■					■		■																										
S4-a				■																															■		
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Buildings Design Standards 1**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1314			
Prerequisite Course(s)	Design Process and Methods			ARC 1308
Semester Level	Level:	3	Year:	1
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	3	Self-study	4.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces knowledge and skills in analyzing buildings elements and identifying the design standards and considerations of different types of simple buildings; such as villas, child daycare centers, schools, restaurant, etc.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction	10%
Design standards for houses and residential buildings - part 1	10%
Houses and residential buildings - part 2	10%
Educational buildings: Child daycare centers and schools	10%
Educational buildings: Libraries	10%
Restaurants	10%
Motels	10%
Small Banks	10%
Fire stations	10%
Malls	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	30	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.

De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.

Perkins, L. (2010). Building type basics for elementary and secondary schools. John Wiley & Sons.

Kobus, R., et al. (2008). Building type basics for healthcare facilities. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Physics for Architects**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	PHY 1115			
Prerequisite Course(s)	None			
Semester Level	Level:	3	Year:	1
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course develops scientific temper and analytic capability and helps to develop skills of critical thinking. By understanding the basic concepts and their applications in engineering technology, students will be able to solve architectural engineering problems.

4. Intended Learning Outcomes (ILOs)

K4-a Demonstrate an understanding of mathematical concepts relevant to the built environment .

S1-b Solve complicated problems associated with the built environment.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Units, measurements and vectors	10%
Motion in one dimension and three dimension	10%
Forces and Newton's Laws	10%
Work and conservation of energy – Part 1	10%
Work and conservation of energy – Part 2	10%
Linear momentum and rotational motion	10%
Mechanical waves and sound – Part 1	10%
Mechanical waves and sound – Part 2	10%
Light waves – Part 1	10%
Light waves – Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Halliday, D., Resnick, R., & Walker, J. (2020). Fundamentals of physics. John Wiley.

حسان. ع. وعرفة، م. و يغمور، س. (1992). المبادئ الأساسية للفيزياء العامة. مكتبة دار الثقافة العالمية.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K4-a																																					
S1-b		■																																			
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**English Language 3**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ELCN1303			
Prerequisite Course(s)	English Language 2			ELCN1302
Semester Level	Level:	3	Year:	1
Responsible Person	….....			
Lecturer(s)	….....		…..	
	….....		…..	
	….....		…..	
	….....		…..	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	2	Total	12
Credit Points	4	CPs.				
Credit Hours	4	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

English Language 2 is a single-level, English for General Purposes (EGP) course. All students who are admitted to Bachelor in the Non-EMI Colleges (College of Islamic Economics and Finance, Department of Islamic Architecture) are required to take this course in the third semester of the first year of their program. The course is offered in 10 weeks with a 10-hour-per week teaching plan covering the four language skills. It intends to develop students' knowledge and ability of English language in all major skills which include reading, writing, listening, and speaking, as well as in sub-skills including grammar, vocabulary, and pronunciation.

4. Intended Learning Outcomes (ILOs)

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Unit 7: Entertain Us	10%
Unit 8: Getting There	10%
Unit 9: Make It Work	10%
Unit 9: Make It Work	10%
Unit 10: Why We Buy	10%
Unit 10: Why We Buy	10%
Unit 11: Pushing Yourself	10%
Unit 11: Pushing Yourself	10%
Unit 12: Life's Little Lessons	10%
Unit 12: Life's Little Lessons	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	100	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Hendra, L.,Et al. (2019). Evolve 3: Special Edition. Student's Book with Practice Extra. Cambridge Uni. Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
S5-a																																					
V1-a																																					
V2-b																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Design Studio 1: Small Scale Public Buildings**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1004			
Prerequisite Course(s)	Fundamental Design Principles Studio			ARC 1003
Semester Level	Level:	4	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Design studios are the heart of the Architecture track. This studio is concerned with small scale public buildings such as kindergarten, restaurant, post office, bank branch, fire station, etc. Values, knowledge and skills acquired in previous courses are supplemented and enhanced, and applied creatively to development phases of the project. This studio particularly enhances students' skills of hand drawing.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S4-a Employ manual skills to develop and present projects.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Course identification and introduction to the project	10%
Analysis of similar projects and site analysis	10%
Preliminary study of the project and its components	10%
Development of plans and structure system -Part 1	10%
Development of plans and structure system -Part 2	10%
Development of plans and structure system -Part 3	10%
Development of sections and elevations -Part 1	10%
Development of sections and elevations -Part 2	10%
Full project development -Part 1	10%
Full project development -Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.
Baker, G. (2006). Design strategies in architecture. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-c	■																																				
S1-d			■	■																					■												
S4-a				■																															■		
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Building Construction Studio 1: Site Preparation**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1101			
Prerequisite Course(s)	Fundamental Design Principles Studio			ARC 1003
Semester Level	Level:	4	Year:	2
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	3	Total	9
Credit Points	3	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Site preparation is always the first phase of any construction project. This studio places emphasis on process of construction site preparation, tools and equipment for site works, soil mechanics and foundations.

4. Intended Learning Outcomes (ILOs)

K2-c Demonstrate an understanding of technical installations in buildings.

K2-d Explain the nature of construction industry.

S1-e Apply the knowledge of bearing structure and materials selection.

S4-c Perform drawings efficiently and accurately.

V2-c Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility.

5. Contents

Content	Weight
Building site: Receiving, preparation and safety considerations	10%
Site planning, temporary constructions and earthwork	10%
Slope protection and retaining walls	10%
Site drainage and paving	10%
Equipment for site works	10%
Transportation construction equipment	10%
Soils: Types, properties, mechanics and testing	10%
Foundations: Shallow foundations	10%
Deep foundations - Part 1	10%
Deep foundations - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Written and Drawing Exam • Written and Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Bernold, L. (2015). Construction Equipment and Methods: Planning, Innovation, Safety. Wiley.
Ching, D.K. (2020). Building Construction Illustrated. Van Nostrad Reinhold.
Mehta, M. (2017). Building Construction: Principles, Materials, and Systems. Pearson.
Saudi building code National committee. (2018). Saudi Electrical Code: SBC 201.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K2-c																					■																	
K2-d																																					
S1-e				■																■																	
S4-c																																			■		
V2-c																																			■		

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Vector-based Drawing**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1203			
Prerequisite Course(s)	None			
Semester Level	Level:	4	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	3.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is an introduction to the fundamentals of Computer Aided Design, beginning with simple drafting commands and standard drafting methods to produce technical and standard 2D drawings.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S5-b Utilize computer programs effectively in communication.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Introduction and course objectives	10%
Using units and managing options	10%
Drawing commands - Part 1	10%
Drawing commands - Part 2	10%
Editing commands - Part 1	10%
Editing commands - Part 2	10%
Organizing the drawings using layers and inquiry commands	10%
Hatching, blocks and text techniques	10%
Creating and editing dimensions	10%
Printing drawings	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Hamad, M. (2021). AutoCAD 2022 Beginning and Intermediate. Mercury Learning & Information.
Shrock, C. (2021). Beginning AutoCAD® 2022 Exercise Workbook. Industrial Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
S1-j				■																															■	■	
S5-b																																			■		
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Introduction to Landscape Architecture**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1315			
Prerequisite Course(s)	Fundamental Design Principles Studio			ARC 1003
Semester Level	Level:	4	Year:	2
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	3.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces the student to the field of landscape architecture. The course includes various topics concerning the profession such as landscape design determinants and considerations, site furniture, landscape structures and outdoor accessibility standards. Through lectures accompanied with an application on a small project, students will acquire the skills to develop a conceptual design and preliminary details of landscape design of an outdoor space.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S1-c Create innovative concepts and forms for the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Foundations of landscape architecture: Concepts and forms	10%
Landscape design determinants and considerations	10%
Bioclimate fundamentals of landscape design	10%
Plants and planting	10%
Surfacing and paving	10%
Outdoor lighting	10%
Recreational facilities, pools and fountains	10%
Pedestrian bridges, fences, screens, and walls	10%
Outdoor accessibility standards	10%
Conceptual design and details of landscape project	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Drawing Exam • Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Booth, N. (2011). Foundations of Landscape Architecture. Wiley.

Bertauski, T. (2018). Plan graphics for the landscape designer. Waveland Press.

Shehata, A. (2021). Design of Outdoor Spaces. Universal Publishing Ltd.

Dines, N., & Brown, K. (2002). Time-saver standards for landscape architecture. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-k				■				■																													
S1-c	■																																				
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architecture of Islamic Civilization**		
Module Level	Bachelor of Architecture and Planning (General Architecture)		
Code	ARC 1310		
Prerequisite Course(s)	None		
Semester Level	Level: 4	Year: 2	
Responsible Person	….....		
Lecturer(s)	….....	…..	
	….....	…..	
	….....	…..	
	….....	…..	
Language	English/ Arabic		
Relation to Curriculum	Required Course		

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course will survey the architectural developments of different Muslim regions and dynasties throughout history. It acquaints the student with the urban characteristics of Islamic culture through the ages and increases the student's understanding of relationships between urban principles and Islamic values in art and architecture. Furthermore, this course enhances student awareness, appreciation, and respect of Muslim architecture, and to familiarize the student with vocabulary of Muslim architecture in order to generate and encourage interest in using and developing such elements.

4. Intended Learning Outcomes (ILOs)

K1-e Demonstrate an understanding of the history of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S2-a Analyze the Islamic values and its impact on the formation of the human and built environment at multiple scales.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to cities in Islamic civilization	10%
Islamic house principles	10%
Architecture of mosques	10%
Umayyad Architecture	10%
Fatimid Architecture	10%
Ayyubid Architecture	10%
Bahrid - Mamluk Architecture	10%
Suljuq - Mamluk Architecture	10%
Ottoman Period	10%
Islamic public buildings	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Grube, E. et al. (1995). Architecture of the Islamic World. Thames and Hudson.
Fletcher, B. (2020). Sir Banister Fletcher's Global history of architecture. Bloomsbury Visual Arts.
Hakim, B. (2013). Arabic-Islamic cities. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-e																		■										■										
K1-h																■																						
S2-a							■																														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Surveying**
Module Level	Bachelor of Architecture and Planning (General Architecture)
Code	CE 1632
Prerequisite Course(s)	None
Semester Level	Level: 4 Year: 2
Responsible Person	.....
Lecturer(s)	....
	....
	....
	....
Language	English/ Arabic
Relation to Curriculum	Required Course

2. ECTS/ Workload

Workload Hours per Week	Contact 4 Self-study 2 Total 6
Credit Points	2 CPs.
Credit Hours	2 CHs.
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities

3. Module Summary

This course focuses on enabling students to handle site surveying instruments. Furthermore, it develops the skills of using basic site surveying techniques.

4. Intended Learning Outcomes (ILOs)

K4-b Demonstrate an understanding of engineering concepts relevant to the built environment .
S1-b Solve complicated problems associated with the built environment.
V1-a Demonstrate self-discipline and punctuality.
V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Distance measurements by tape and its errors	10%
Scale	10%
Leveling and errors in leveling	10%
Grid leveling	10%
Theodolite	10%
Direction and azimuth of lines	10%
Profile leveling	10%
Cross section leveling	10%
Error and adjustments	10%
Volume calculations	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Barry, F. & Mastin, T. (2012). Surveying: Principles and Applications. Pearson.

Wolf, R. & Ghilani, C. (2014). Elementary Surveying. Pearson.

Ghilani, C. (2017). Elementary Surveying: An Introduction to Geomatics. Pearson.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K4-b																					■			■														
S1-b		■																																			
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Design Studio 2: Medium Scale Public Buildings**		
Module Level	Bachelor of Architecture and Planning (General Architecture)		
Code	ARC 1005		
Prerequisite Course(s)	Architectural Design Studio 1: Small Scale Public Buildings		ARC 1004
Semester Level	Level: 5	Year: 2	
Responsible Person	……		
Lecturer(s)	……	……	
	……	……	
	……	……	
	……	……	
Language	English/ Arabic		
Relation to Curriculum	Required Course		

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is concerned with medium scale public buildings such as elementary school, mall, motel, etc. Values, knowledge and skills acquired in previous courses are supplemented and enhanced, and applied creatively to development phases of the project. This studio particularly enhances students' previously acquired skills of computer-aided drafting.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Course identification and introduction to the project	10%
Analysis of similar projects and site analysis	10%
Preliminary study of the project and its components	10%
Development of plans and structure system -Part 1	10%
Development of plans and structure system -Part 2	10%
Development of plans and structure system -Part 3	10%
Development of sections and elevations -Part 1	10%
Development of sections and elevations -Part 2	10%
Full project development -Part 1	10%
Full project development -Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.
Baker, G. (2006). Design strategies in architecture. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Building Construction Studio 2: Components of Building Structure**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1102			
Prerequisite Course(s)	Building Construction Studio 1: Site Preparation			ARC 1101
Semester Level	Level:	5	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	4.5	Total	10.5
Credit Points	4	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

To construct a building can withstand its own weight and any additional pressure, it is important to understand what the structural components of a building are. This studio places emphasis on convenience construction systems and basic components of buildings. Moreover, it introduces advanced construction systems and techniques for reinforced concrete structures.

4. Intended Learning Outcomes (ILOs)

K2-a Differentiate between various types of building materials, building technologies and structural systems.

K2-d Explain the nature of construction industry.

S1-e Apply the knowledge of bearing structure and materials selection.

S4-c Perform drawings efficiently and accurately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to building materials	10%
Building with bricks	10%
Load-bearing walls	10%
Concrete: Formwork and shoring	10%
Concrete: Mixing, casting and compaction	10%
Reinforced concrete columns, beams and frames	10%
Reinforced concrete slabs - part 1	10%
Reinforced concrete slabs - part 2	10%
Advanced construction systems: Precast concrete	10%
Advanced construction systems: Lift-Slab and tunnel formwork system	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Written and Drawing Exam • Written and Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Ching, D.K. (2020). Building Construction Illustrated. Van Nostrad Reinhold.
Kultermann, E., & Spence, W. (2016). Construction materials, methods and techniques. Cengage.
Bernold, L. (2015). Construction Equipment and Methods: Planning, Innovation, Safety. Wiley.
Mehta, M. (2017). Building Construction: Principles, Materials, and Systems. Pearson.
Levy, S. (2010). Construction databook. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K2-a																					■																	
K2-d																																					
S1-e				■																■																	
S4-c																																			■		
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**3D Modeling**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1205			
Prerequisite Course(s)	Vector-based Drawing			ARC 1203
Semester Level	Level:	5	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	3.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

3D modeling for buildings is a common tool for architects, it is almost impossible to find specialists that do not use it to visualize their exterior and interior design projects. This course introduces students to use computer modeling software efficiently. Detailed modeling procedures are discussed, including texture mapping and navigation, in addition to basics of lighting, rendering and animation.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S5-b Utilize computer programs effectively in communication.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Introduction to 3D modeling	10%
3D surface modeling - Part 1	10%
3D surface modeling - Part 2	10%
3D solid modeling - Part 1	10%
3D solid modeling - Part 2	10%
Edit tools	10%
Applying and creating materials and texturing	10%
lighting and rendering	10%
Basics of animation - Part 1	10%
Basics of animation - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Coward, C. (2019). A beginner's guide to 3D modeling. No Starch Press.
Mortenson, M. (2019). 3D Modeling, Animation, and Rendering. CreateSpace.
Chong, S. (2019). Rhinoceros Visualisation & Rendering.
Chong, S. (2021). Rhinoceros Organic Modelling.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																					
S1-j				■																															■	■	
S5-b																																			■		
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Local Architectural Heritage**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1304			
Prerequisite Course(s)	None			
Semester Level	Level:	5	Year:	2
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

In less than half a century, Saudi Arabia has been transformed from nomadic and rural societies into modem urban ones. As a result of the extensive adoption of modern technologies and urbanization, most architectural traditions have been lost. This course illustrates traditional design and construction methods in various regions of Saudi Arabia, how they had been abandoned and almost disappeared, and the recent formal and informal efforts to revive and reinvent local architectural heritage.

4. Intended Learning Outcomes (ILOs)

K1-e Demonstrate an understanding of the history of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to architectural heritage	10%
Factors that lead to the emergence of architectural heritage	10%
Architectural heritage in the Western (Hijaz) region	10%
Architectural heritage in the Central and northern (Najd) region	10%
Architectural heritage in the Eastern region	10%
Architectural heritage in the Southern (Asir) region	10%
Reasons of architectural heritage disappearance in Saudi Arabia	10%
Rooting the architectural values of heritage in contemporary architecture - part 1	10%
Rooting the architectural values of heritage in contemporary architecture - part 2	10%
Efforts to revive traditional design and construction methods in Saudi Arabia	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Mortada, H. (2020). Traditional Built Environment of Saudi Arabia. Benton heights LLC.

Facey, W. (1999). Back to earth: Adobe Building in Saudi Arabia. Arabian Publishing Ltd.

Hariri, W. (1990). The heritage of the Kingdom of Saudi Arabia. GDG Publications.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-e																		■										■										
K1-h																■																						
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Renaissance and Pre-modern Architecture**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1311			
Prerequisite Course(s)	None			
Semester Level	Level:	5	Year:	2
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces students to world architecture on Renaissance age, 18th and 19th centuries and pre-modernism period. It helps understanding the various cultural, technological and aesthetic aspects through history. The course emphasizes on works and trends of pioneers throughout those eras.

4. Intended Learning Outcomes (ILOs)

K1-e Demonstrate an understanding of the history of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to the course	10%
The early Renaissance Architecture	10%
The late Renaissance: Mannerism Architecture	10%
The Renaissance in France and England	10%
Baroque Architecture - Part 1	10%
Baroque Architecture - Part 2	10%
The 18th century: Industrial revolution	10%
Pre-modern architecture - Part 1	10%
Pre-modern architecture - Part 2	10%
Architectural applications of iron and steel construction	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Moffett, M. et al. (2008). A world History of Architecture. McGraw-Hill.
Fletcher, B. (2020). Sir Banister Fletcher's Global history of architecture. Bloomsbury Visual Arts.
Ching, F. et al. (2017). A global history of architecture. Wiley.
Bussagli, M. (2019). Italian Renaissance Architecture. Koenemann.
Riseberro, B. (2012). The Story of Western Architecture. The MIT Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-e																		■										■										
K1-h																■																						
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Environmental control Systems**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1317			
Prerequisite Course(s)	Architectural Design Studio 1: Small Scale Public Buildings			ARC 1004
Semester Level	Level:	5	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course studies the interaction between buildings and climate considering natural and man- made effects in order to create a climatically comfortable and controlled environment for building users. Furthermore, this course discusses examples of passive design in hot-humid and hot-arid climates.

4. Intended Learning Outcomes (ILOs)

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

K1-j Demonstrate adequate understanding of the means to achieve an environmentally sustainable built environment.

S1-a Make design decisions considering user requirements and various environmental impacts.

S1-k Apply various means to achieve sustainable built environment.

V2-c Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility.

5. Contents

Content	Weight
Introduction to human, building and climate	10%
Climatic factors and human comfort	10%
Climatic zones, micro and macro climate, and climate effects on buildings	10%
Sun path diagram and solar control	10%
Thermal transfer control	10%
Wind effects and air flow patterns	10%
Prevailing wind: control methods	10%
Daylight	10%
Passive design in hot-humid climate	10%
Passive design in hot-arid climate	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Moore, F. (1992). Environmental Control Systems: Heating, Cooling, Lighting. McGraw-Hill.
Kwok, A. (2021). Environmental Control Systems Case Studies. Lulucom.
Raof, S. et al. (2009). Adapting Buildings and Cities for Climate Change. Elsevier.
Olgyay, V. (1992). Design with Climate: Bioclimatic Approach to the Architectural Regionalism, Willy.
Koenigsberger, O. (2005). Manual of Tropical Housing and Building Design with Climate. Longman.
Phillips, D. (2004). Daylighting: Natural Light in Architecture. Architectural Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-i																■	■																					
K1-j																■								■														
S1-a				■					■		■																										
S1-k																			■																		
V2-c																																			■		

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Structure 1**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	CE 1450			
Prerequisite Course(s)	None			
Semester Level	Level:	5	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces the student to the essential skills required to analyze simple structures using various analysis procedure and techniques.

4. Intended Learning Outcomes (ILOs)

K4-b Demonstrate an understanding of engineering concepts relevant to the built environment .

S1-b Solve complicated problems associated with the built environment.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Vector analysis of force	10%
Force system in 2D and 3D	10%
Equivalent for system	10%
Equilibrium in 2D	10%
Analysis of structures	10%
Beams	10%
Frames	10%
Trusses	10%
Distributed force system	10%
Area moment of inertia	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Hibbeler, R. (2012). Statics. Pearson Education.
Hibbeler, R. (2016). Mechanics of Materials. Pearson Education.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K4-b																					■			■														
S1-b		■																																			
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Design Studio 3: Vernacular Architecture**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1006			
Prerequisite Course(s)	Architectural Design Studio 2: Medium Scale Public Buildings			ARC 1005
	Local Architectural Heritage			ARC 1304
Semester Level	Level: 6		Year: 2	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio emphasizes the importance of architectural heritage and its influence on the contemporary architecture. It reviews traditional design and construction methods in various regions of Saudi Arabia. It illustrates how to revive and reinvent traditional design and construction methods in a contemporary design project.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.
K1-h Explain the impact of different aspects on the built environment.
S1-c Create innovative concepts and forms for the built environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S1-j Effectively employ digital skills in different stages of designing the built environment.
V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Course identification and introduction to the project	10%
Local architectural heritage in Saudi Arabia review	10%
Analysis of similar projects and site analysis	10%
Preliminary study of the project and its components	10%
Development of plans and Identity -Part 1	10%
Development of plans and Identity -Part 2	10%
Development of plans and Identity -Part 3	10%
Development of sections and elevations	10%
Full project development -Part 1	10%
Full project development -Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Mortada, H. (2020). Traditional Built Environment of Saudi Arabia. Benton heights LLC.
Facey, W. (1999). Back to earth: Adobe Building in Saudi Arabia. Arabian Publishing Ltd.
Hariri, W., & Hariri, M. (1990). The heritage of the Kingdom of Saudi Arabia. GDG Publications.
Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																												■									
K1-h																■																					
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Building Construction Studio 3: Components of Building Structure**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1103			
Prerequisite Course(s)	Building Construction Studio 2: Components of Building Structure			ARC 1102
Semester Level	Level:	6	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	4.5	Total	10.5
Credit Points	4	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is a continuation of "Building Construction Studio 2". It introduces basics of steel construction. Moreover, it illustrates various types of insulation and joints, as well as the design, details and implementation of doors and windows. Furthermore, it discusses vertical movement elements in buildings.

4. Intended Learning Outcomes (ILOs)

K2-a Differentiate between various types of building materials, building technologies and structural systems.

S1-e Apply the knowledge of bearing structure and materials selection.

S4-c Perform drawings efficiently and accurately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction	10%
Basics of steel construction: Foundations, steel columns and beams	10%
Basics of steel construction: Steel frames, cementitious roof planks and metal decking	10%
Introduction to steel trusses, space truss and space frames	10%
Insulation: Moisture, thermal and sound	10%
Joints in buildings: Settlement and expansion joints	10%
Types of stairs and ramps: Design, details and implementation	10%
Elevators, escalators and travelators: Design, details and implementation	10%
Doors: Types, used materials, manufacturing and details	10%
Windows: Types, used materials, manufacturing and details	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Written and Drawing Exam • Written and Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Ching, D.K. (2020). Building Construction Illustrated. Van Nostrad Reinhold.
Staib, G. et al. (2013). Components and Systems: Modular Construction. Birkhauser.
Mehta, M. (2017). Building Construction: Principles, Materials, and Systems. Pearson.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K2-a																					■																	
S1-e				■																■																		
S4-c																																			■		
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Creative Generative-Design**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1201			
Prerequisite Course(s)	3D Modeling			
Semester Level	Level:	6	Year:	2
Responsible Person	….....			
Lecturer(s)	….....		…..	
	….....		…..	
	….....		…..	
	….....		…..	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	3.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Generative design is a set of technologies that give a computerized copilot for design process, helping engage the power of computation and algorithms to create designs. This course explores the potential of parametric modeling, algorithms and generative systems in architectural design. Students are free to explore and build on a wide and extensible palette of parametric modeling, scripting, and analysis tools during their experimentation with form generation, evaluation and optimization methods.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S5-b Utilize computer programs effectively in communication.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Introduction to Generative Design - part 1	10%
Introduction to Generative Design - part 2	10%
Genetic/ Evolutional Solvers - part 1	10%
Genetic/ Evolutional Solvers - part 2	10%
Physics Solver - part 1	10%
Physics Solver - part 2	10%
Introduction to Machine Learning Solver	10%
Applying Generative Design - part 1	10%
Applying Generative Design - part 2	10%
Applying Generative Design - part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Agkathidis, A. (2016). Generative Design. Laurence King Publishing.

Rhee, J. (2020). Digital media series: Grasshopper. Independently published.

Zesk, W. (2019). Grasshopper: Generative Design for Architecture. linkedin.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
S1-j				■																															■	■	
S5-b																																			■		
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Buildings' Technical Installations**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1307			
Prerequisite Course(s)	Architectural Design Studio 2: Medium Scale Public Buildings			ARC 1005
Semester Level	Level:	6	Year:	2
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The main concern and focus of this studio is about technical installations in buildings. It is considered as an introduction to "Building Construction Studio" course. The course introduces the students to various technical installations including water supply, drainage, electrical and mechanical systems. Moreover, it illustrates acoustics and lighting systems taking into account the simple calculations of these systems.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

K2-c Demonstrate an understanding of technical installations in buildings.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction	10%
water supply systems	10%
Plumbing fixtures	10%
Sanitary drainage systems	10%
Private sewerage systems	10%
Normal electrical systems	10%
Ventilation and air conditioning (HVAC) systems	10%
Central cooling systems	10%
Acoustics systems	10%
Lighting systems	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Ching, D.K. (2020). Building Construction Illustrated. Van Nostrad Reinhold.
International Code Council. (2021). International Plumbing Code. ICC.
Hurt, S. (2017). Building systems in interior design. Routledge.
Saudi building code National committee. (2018). Saudi Electrical Code: SBC 401.
Saudi building code National committee. (2018). Saudi Mechanical Code: SBC 501.
Saudi building code National committee. (2018). Saudi Plumbing Code: SBC 701.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
K2-c																					■																
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Principles of Urban Design**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1313			
Prerequisite Course(s)	Architectural Design Studio 2: Medium Scale Public Buildings			ARC 1005
Semester Level	Level:	6	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is to introduce students to key concepts and basic principles in urban design. It helps students understand the urban environment where human beings operate physically, culturally and socially. Students will develop urban design skills that help in participating effectively in the following studios of Urban Design track.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

S3-b Analyze data from a variety of sources.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Definition and emergence of urban design	10%
The foundations and principles of urban design	10%
Elements, divisions, classifications and levels of urban design	10%
Visual dimension in urban design	10%
Functional and social dimension in urban design	10%
Introduction to housing: Types of residential buildings	10%
Analysis and redesign of urban spaces	10%
Applications of urban design in some European countries	10%
Applications of urban design in some Islamic countries	10%
Urban design spaces in the Saudi Arabia	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

الهزلول، ص. (2010). نشأة و تطور التصميم العمراني. سلسلة علوم العمران 1

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.

Towers, G. (2015). An introduction to urban housing design. Routledge.

Kliment, S., & Chandler, R. (2010). Building type basics for housing. John Wiley & Sons.

Firley, E., & Stahl, C. (2009). The urban housing handbook. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-h																■																						
S3-a																																					
S3-b		■																																		■	■
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Design Studio 4: Conventional Structure Systems**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1007			
Prerequisite Course(s)	Architectural Design Studio 3: Vernacular Architecture			ARC 1006
Semester Level	Level:	7	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Appling various structure systems is an essential part of architectural design operation. This is expected to be accomplished through acquainting students with applications of different types of conventional structure systems; consequently, they become capable of selecting the appropriate construction materials and structure system in their architectural projects.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.
K2-a Differentiate between various types of building materials, building technologies and structural systems.
S1-c Create innovative concepts and forms for the built environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S1-e Apply the knowledge of bearing structure and materials selection.
V1-a Demonstrate self-discipline and punctuality.
V2-c Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility.

5. Contents

Content	Weight
Introduction to the project	10%
Conventional structure systems review	10%
Analysis of similar projects and site analysis	10%
Preliminary study of the project and its components	10%
Development of plans and structure system -Part 1	10%
Development of plans and structure system -Part 2	10%
Development of plans and structure system -Part 3	10%
Development of sections and elevations	10%
Full project development -Part 1	10%
Full project development -Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Engel H. (2007). Structure systems. Praeger.
Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.
Baker, G. (2006). Design strategies in architecture. Routledge.
Ching, F. (2014). Building Structures illustrated. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K2-a																					■																
S1-c	■																																				
S1-d			■	■																					■												
S1-e				■																■																	
V1-a																																					
V2-c																																			■		

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Building Construction Studio 4: Technical Drawings**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1104			
Prerequisite Course(s)	Building Construction Studio 3: Components of Building Structure			ARC 1103
Semester Level	Level:	7	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	6	Total	12
Credit Points	4	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The main concern and focus of this studio is about technical drawings. It is considered as a continuation of "Buildings' Technical Installations" course. The students are asked to execute various technical installation details including water supply, drainage, electrical and mechanical systems. Moreover, they are asked to draw details of acoustics and lighting treatments.

4. Intended Learning Outcomes (ILOs)

K2-c Demonstrate an understanding of technical installations in buildings.

S1-b Solve complicated problems associated with the built environment.

S4-c Perform drawings efficiently and accurately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Review of building technical installations	10%
Technical drawings of water supply systems	10%
Technical drawings of plumbing fixtures	10%
Technical drawings of sanitary drainage systems	10%
Technical drawings of private sewerage systems	10%
Technical drawings of normal electrical systems	10%
Technical drawings of ventilation and air conditioning (HVAC) systems	10%
Technical drawings of central cooling systems	10%
Technical drawings of acoustics systems	10%
Technical drawings of lighting systems	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Written and Drawing Exam • Written and Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Ching, D.K. (2020). Building Construction Illustrated. Van Nostrad Reinhold.
International Code Council. (2021). International Plumbing Code. ICC.
Bobenhausen, W. (1994). Simplified design of HVAC systems. John Wiley & Sons.
Hurt, S. (2017). Building systems in interior design. Routledge.
Saudi building code National committee. (2018). Saudi Electrical Code: SBC 401.
Saudi building code National committee. (2018). Saudi Mechanical Code: SBC 501.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K2-c																					■																
S1-b		■																																			
S4-c																																			■		
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Principles of Urban Planning**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1312			
Prerequisite Course(s)	Architectural Design Studio 3: Vernacular Architecture			ARC 1006
Semester Level	Level:	7	Year:	3
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is a preface to "Introduction to Urban Planning Studio". It gives the students an introduction to urban planning's definitions, levels, and types. It addresses the history, principles and process of urban planning. The course covers a historical study of the city, including its origins and evolution since the dawn of history to the 19th mid-century. Furthermore, it illustrates required studies and process of urban planning.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Definition of urban planning and planning levels and types	10%
Cities in ancient civilizations and medieval times	10%
Cities in Arab Islamic civilization	10%
Baroque and Renaissance towns	10%
Cities of the Industrial Revolution	10%
General objectives of urban planning	10%
Required studies for urban planning	10%
The process of urban planning: Field survey documents	10%
The process of urban planning: Data analysis and mapping	10%
The process of urban planning: Urban planning alternatives	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Norwich, J. (2016). The Great Cities in History. Thames & Hudson.
Carl Abbott. (2020). City Planning: A Very Short Introduction. Oxford University Press.
Couch, C. (2016). Urban planning: an Introduction. Macmillan.
Berke, P. and Godschalk, D. (2006). Urban Land Use Planning. University of Illinois Press.
Hack, G., Birch, E., & Sedway, P. (2014). Local Planning. ICMA.
Butler, K. (2012). Planning and Urban Design Standards. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-h																■																						
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Structure Systems in Architecture**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1316			
Prerequisite Course(s)	Building Construction Studio 3: Components of Building Structure			ARC 1103
Semester Level	Level:	7	Year:	3
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Understanding various structure systems is an essential part of architectural design operation. This is expected to be accomplished through acquainting students with applications of different types of conventional and long spans structure systems; consequently, they become capable of selecting the appropriate construction materials and structure system in their architectural projects. This course considered to be an introduction to "Architectural Design Studio 5: Long Spans".

4. Intended Learning Outcomes (ILOs)

K2-a Differentiate between various types of building materials, building technologies and structural systems.

S1-e Apply the knowledge of bearing structure and materials selection.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to building materials	10%
Solid and flat slab structure systems	10%
Hollow blocks and Waffle slab structure systems	10%
Hollow-core and Frames structure system	10%
Trusses structure system	10%
Cables structure system	10%
Tent structure system	10%
Folded plates structure system	10%
Shell structure system	10%
Pneumatic structure system	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Engel H. (2007). Structure systems. Praeger.
Ching, F. (2014). Building Structures illustrated. Wiley.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
Drew, P. (2008). New tent architecture. Thames & Hudson.
WANG, B. (2019). FREE-STANDING TENSION STRUCTURES. CRC PRESS.
Herzog, T. (1977). Pneumatic structures. Crosby Lockwood Staples.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K2-a																					■																	
S1-e				■																■																		
S3-a																																					
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Introduction to Urban Design Studio**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1109			
Prerequisite Course(s)	Architectural Design Studio 3: Vernacular Architecture			ARC 1006
	Principles of Urban Design			ARC 1313
Semester Level	Level: 7		Year: 3	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	8	Self-study	10	Total	18
Credit Points	6	CPs.				
Credit Hours	4	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is to introduce students to practice key concepts and basic principles in urban design. It helps students understand the urban environment where human beings operate physically, culturally and socially. Students will develop previous learned urban design skills in a small-scale urban design project. The location of the project shall be determined in coordination with the relevant authorities, if any, or by the coordinator of the studio.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the studio	10%
Collect information to understand problems	10%
Analyzing the collected data to reach the main objectives	10%
Developing alternatives	10%
Evaluating the alternatives based on assessment criteria	10%
Development of various aspects of the selected alternative - Part 1	10%
Development of various aspects of the selected alternative - Part 2	10%
Development of various aspects of the selected alternative - Part 3	10%
Development of various aspects of the selected alternative - Part 4	10%
Development of various aspects of the selected alternative - Part 5	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	80	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.
Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.
Krier, R. (1993). Urban Space. Rizzoli.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-c	■																																				
S1-d			■	■																					■												
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Structure 2**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	CE 2452			
Prerequisite Course(s)	Structure 1			CE 1450
Semester Level	Level:	7	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces the student to design essential reinforced concrete elements such as beams, columns, slabs and footings.

4. Intended Learning Outcomes (ILOs)

K4-b Demonstrate an understanding of engineering concepts relevant to the built environment .
S1-b Solve complicated problems associated with the built environment.
V1-a Demonstrate self-discipline and punctuality.
V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Mechanical properties of concrete	10%
Steel reinforcement	10%
Loads	10%
Methods of design	10%
Analysis of rectangular section under bending – Part 1	10%
Analysis of rectangular section under bending – Part 2	10%
Design of one way solid slab	10%
Design of beams	10%
Design of columns	10%
Design of isolated footings	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

McCormac, J., & Nelson, J. (2010). Design of reinforced concrete. John Wiley.

Saudi building Code National Committee. (2018). Structural-Concrete Structures: SBC 304-AR.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K4-b																					■			■														
S1-b		■																																			
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Design Studio 5: Long Spans**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1008			
Prerequisite Course(s)	Architectural Design Studio 4: Conventional Structure Systems			ARC 1007
	Structure Systems in Architecture			ARC 1316
Semester Level	Level:	8	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Understanding various structure systems is an essential part of designing operation. This is expected to be accomplished through acquainting the student with applications of different sorts of long-span structure systems, so the student becomes capable of selecting the appropriate construction materials and proper structure systems when designing this type of projects.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K2-a Differentiate between various types of building materials, building technologies and structural systems.

S1-c Create innovative concepts and forms for the built environment.

S1-e Apply the knowledge of bearing structure and materials selection.

V1-a Demonstrate self-discipline and punctuality.

V2-c Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility.

5. Contents

Content	Weight
Course identification and introduction to the project	10%
Long span structure systems review	10%
Analysis of similar projects and site analysis	10%
Preliminary study of the project and its components	10%
Development of plans and structure system -Part 1	10%
Development of plans and structure system -Part 2	10%
Development of plans and structure system -Part 3	10%
Development of sections and elevations	10%
Full project development -Part 1	10%
Full project development -Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Engel H. (2007). Structure systems. Praeger.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
Baker, G. (2006). Design strategies in architecture. Routledge.
Ching, F. (2014). Building Structures illustrated. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K2-a																					■																
S1-c	■																																				
S1-e				■																■																	
V1-a																																					
V2-c																																			■		

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Building Construction Studio 5: Finishes**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1105			
Prerequisite Course(s)	Building Construction Studio 4: Technical Drawings			ARC 1104
Semester Level	Level:	8	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	6	Total	12
Credit Points	4	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course illustrates the major materials and methods used to finish the building facades and interior wall, ceiling, and floor surfaces.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.
S3-a Independently seek information and use it appropriately.
S4-c Perform drawings efficiently and accurately.
V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to interior finish materials	10%
External finishes - Part 1	10%
External finishes - Part 2	10%
Interior finishes: Plaster and gypsum board	10%
Paintings and coatings	10%
Wood joints, moldings and trim	10%
Wood paneling	10%
Wood flooring installation	10%
Marble and granite: Types and installation	10%
Ceramic tile: Application and details	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Written and Drawing Exam • Written and Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Ching, D.K. (2020). Building Construction Illustrated. Van Nostrad Reinhold.
Kultermann, E., & Spence, W. (2016). Construction materials, methods and techniques. Cengage.
Bernold, L. (2015). Construction Equipment and Methods: Planning, Innovation, Safety. Wiley.
Mehta, M. (2017). Building Construction: Principles, Materials, and Systems. Pearson.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S4-c																																			■		
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Sustainable Architecture**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1305			
Prerequisite Course(s)	Architectural Design Studio 4: Conventional Structure Systems			ARC 1007
Semester Level	Level:	8	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Nowadays natural resources are being used in irreparably damaging rate. Moreover, human activities pollute the air, water and land which we depend on to survive. Hence this course focuses on sustainable architectural design as an introduction to Architectural Design studio 7. This course illustrates the appropriate strategies and technologies used to improve the building's environmental performance and to provide comfort to its occupants. Therefore, basic technical knowledge on energy, water, materials, etc., is covered in the context of how buildings operate.

4. Intended Learning Outcomes (ILOs)

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

K1-j Demonstrate adequate understanding of the means to achieve an environmentally sustainable built environment.

S1-k Apply various means to achieve sustainable built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to sustainability	10%
Location and transportation	10%
Sustainable site	10%
Water efficiency	10%
Energy and atmosphere	10%
Materials and resources	10%
Indoor air quality and thermal comfort	10%
Indoor efficient lighting and view	10%
Case study analysis - Part 1	10%
Case study analysis - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

U.S. Green Building Council. (2010). Green building design and construction.
Kubba, S. (2017). Handbook of Green Building Design and Construction. Elsevier Science.
Kibert, C. (2016). Sustainable Construction, 4th Edition. John Wiley & Sons.
Lezcano, R. (2021). Sustainable Building and Indoor Air Quality. MDPI AG.
Ching, F., & Shapiro, I. (2014). Green building illustrated. John Wiley & Sons.
Saudi building code National committee (2018). Green Construction Code 1001.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-i																■	■																					
K1-j																■								■														
S1-k																			■																		
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Introduction to Urban Planning Studio**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	ARC 1110			
Prerequisite Course(s)	Introduction to Urban Design Studio			ARC 1109
	Principles of Urban Planning			ARC 1312
Semester Level	Level: 8		Year: 3	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	8	Self-study	10	Total	18
Credit Points	6	CPs.				
Credit Hours	4	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is to introduce students to practice key concepts and basic principles in urban planning. It helps students understand the urban environment where human beings operate physically, culturally and socially. Students are asked to collect data and analyze urban planning aspects of an existing small city.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-g Describe the conservation methods of the built heritage.

S3-a Independently seek information and use it appropriately.

S3-b Analyze data from a variety of sources.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to the studio	10%
Collecting data to understand and specify problems	10%
Analyzing the collected data to reach the main objectives	10%
Regional introduction	10%
Environmental analysis of the city	10%
Infrastructure analysis	10%
Services	10%
Residential communities	10%
Socio-economic studies	10%
SWOT analysis of the city	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	80	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Butler, K. (2012). Planning and Urban Design Standards. Wiley.

ELWakil, S. (2006). Urban Planning: Principles, Basics and Applications.

Levy, J. (2016). Contemporary urban planning. Routledge.

Weber, R. & Randal, C. (2015). The oxford handbook of urban planning. 2015.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-g							■																														
S3-a																																				
S3-b		■																																		■	■
V2-d																																				

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Structure 3**			
Module Level	Bachelor of Architecture and Planning (General Architecture)			
Code	CE 2454			
Prerequisite Course(s)	Structure 2			CE 2452
Semester Level	Level:	8	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces the student to design essential steel structure elements and related techniques.

4. Intended Learning Outcomes (ILOs)

K4-b Demonstrate an understanding of engineering concepts relevant to the built environment .
S1-b Solve complicated problems associated with the built environment.
V1-a Demonstrate self-discipline and punctuality.
V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Specifications, loads and methods of design	10%
Analysis and design of tension members	10%
Introduction of axially loaded compression members	10%
Design axially loaded compression members	10%
Design of column base plates	10%
Design of beams for moments	10%
Design of beams for shear and deflection	10%
Bending and axial forces	10%
Eccentrically loaded bolted connections	10%
Welded and building connections	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

McCormac, J., & Csernak, F. (2012). Structural Steel Design. John Wiley.

Saudi building Code National Committee. (2018). Structural-Steel Structures: SBC 304-AR.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K4-b																					■			■														
S1-b		■																																			
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Cooperative Training**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1500			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
	Introduction to Urban Planning Studio			ARC 1110
Semester Level	Level: 9		Year: 3	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	0	Self-study	42	Total	42
Credit Points	14	CPs.				
Credit Hours	8	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This training provides students with an opportunity to enrich their university experience by linking academic studies to actual practical situations. Students will also have the opportunity to assess their professional interests in their respective fields. The trainee student is subject to all the organizational rules and vacations system in the firm in which he trains. Training opportunities with architectural firms are selected by the department; however, student can select an opportunity to train after department approval. Prior to the semester in which the training is held, an introductory lecture is conducted and students nominated for training are invited to attend.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.
K3-a Identify the professional ethics and responsibilities related to the built environment.
S1-b Solve complicated problems associated with the built environment.
S1-g Apply the knowledge of professional and regulatory requirements.
V1-a Demonstrate self-discipline and punctuality.
V1-c Demonstrate commitment to ethics; and professional and academic values.
V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.
V2-c Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility.

5. Contents

Content	Weight
Cooperative training starts and submission of work procedure form	10%
Practicing the professional work and different tasks assigned by the training consultant	10%
Practicing the professional work and different tasks assigned by the training consultant	10%
Practicing the professional work and different tasks assigned by the training consultant	10%
Week 5: First attendance and absence report submission	10%
Week 6: Practicing the professional work and different tasks assigned by the training consultant	10%
Week 7-9: Practicing the professional work and different tasks assigned by the training consultant	10%
Week 10: Second attendance and absence report submission	10%
Practicing the professional work and different tasks assigned by the training consultant	10%
Final evaluation report submission and review of training report produced by the student	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	0	Training	42
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	80%	Final Exam	20%
	Mid-term Exam	…..	Total	100%
Forms of Examination	• Follow-up and periodical reports • ……. • Training Consultant performance and Final training reports			
Examination Requirements	None			

8. Reading list

N/A
N/A

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
K3-a													■																	■		■						
S1-b		■																																			
S1-g				■																								■									
V1-a																																					
V1-c																																■					
V2-b																																					
V2-c																																			■		

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

Specifications of

General Architecture

Elective Courses

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Module Specifications P44

1. General Information

Module Name	**Digital Architectural Photography**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1401			
Prerequisite Course(s)	None			
Semester Level	Level:	3	Year:	1
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The course deals with the language of photography in relation to architecture and landscape. Next to the study of the historical / linguistic aspects are addressed the technical aspects relating to the use of today's digital cameras and smart phones.

4. Intended Learning Outcomes (ILOs)

K1-o Demonstrate an understanding of the fine arts as an influence on the quality of the design.
S4-a Employ manual skills to develop and present projects.
S5-a Communicate effectively with others.
V1-a Demonstrate self-discipline and punctuality.
V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction: Brief on photography	10%
Photography and architecture: Practice observing	10%
Composition, grid, symmetry and rule of thirds	10%
Light and shadows	10%
Lines and shapes - Reflections	10%
Flats - Color	10%
Sky and clouds	10%
The dynamic range, zoom and cropping and clipping	10%
Photo editing and correcting perspective aberrations	10%
Selections and series	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Drawing Exam • Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Bosio, A. (2019). Architecture photography with your smartphone.
Schulz, A. (2015). Architectural Photography. Rocky Nook.
Rutherford, S. (2013). Beginners Guide to Real Estate Photography. Steve Rutherford.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-o						■																															
S4-a				■																															■		
S5-a																																			■		
V1-a																																					
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Arabic Calligraphy and Ornamentation**
Module Level	Bachelor of Architecture and Planning (Architecture)
Code	ARC 1402
Prerequisite Course(s)	None
Semester Level	Level: 3 Year: 1
Responsible Person	….....
Lecturer(s)	…..... ….....
	…..... ….....
	…..... ….....
	…..... ….....
Language	English/ Arabic
Relation to Curriculum	Elective Course

2. ECTS/ Workload

Workload Hours per Week	Contact 2 Self-study 4 Total 6
Credit Points	2 CPs.
Credit Hours	2 CHs.
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities

3. Module Summary

The intimate relationship between religion and architecture and its decoration is a reflection of the beauty of the Islamic spirit. Calligraphy is one of the most refined forms of art. This course focuses on reticulated geometric Kufic calligraphy, the simplest type of calligraphy. This style of calligraphy does not require manual skill, so it has been widely used, especially the inscriptions on mosque facades, as well as in the decoration of interior spaces.

4. Intended Learning Outcomes (ILOs)

K1-o Demonstrate an understanding of the fine arts as an influence on the quality of the design.
S4-a Employ manual skills to develop and present projects.
S5-a Communicate effectively with others.
V1-a Demonstrate self-discipline and punctuality.
V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
History of Islamic calligraphy and ornaments	10%
Types of Islamic calligraphy and ornaments	10%
Types of ornament patterns	10%
Formation of decorative units using reticulated geometric Kufic style	10%
Formation of ornament patterns of the Kufic letters - Part 1	10%
Formation of ornament patterns of the Kufic letters - Part 2	10%
Calligraphy and ornamentation crafts - Part 1	10%
Calligraphy and ornamentation crafts - Part 2	10%
Calligraphy and ornamentation crafts - Part 3	10%
Calligraphy and ornamentation crafts - Part 4	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Drawing Exam • Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

حبش، ح. (2016). الخط العربي الكوفي. دار القلم.

ازيد، ص. (2011). أجمل التكوينات الزخرفية في فن كتابة الخط الكوفي لأشهر الخطاطين قديما وحديثا. دار الكتب العلمية.

Michelli, P. et al. (2017). A Handbook of Early Arabic Kufic Script. Blautopf Publishing.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-o						■																															
S4-a				■																															■		
S5-a																																			■		
V1-a																																					
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Graphic Design Principles**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1403			
Prerequisite Course(s)	None			
Semester Level	Level:	3	Year:	1
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course provides an intense overview of the varied elements that make up the graphic design profession. From understanding graphic design fundamentals, to developing original concepts, to creating finished designs- this course develops design students' core competencies and provides practical advice and tips for how these fundamentals translate into new and evolving media.

4. Intended Learning Outcomes (ILOs)

K1-o Demonstrate an understanding of the fine arts as an influence on the quality of the design.
S4-a Employ manual skills to develop and present projects.
S5-a Communicate effectively with others.
V1-a Demonstrate self-discipline and punctuality.
V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
History of graphic design	10%
Formstorming	10%
Rhythm, Balance Hierarchy and Scale	10%
Texture, Color, Grid and Pattern	10%
Gestalt principles	10%
Framing	10%
Layers and Transparency	10%
Time and motion	10%
Rules and randomness	10%
Influential practitioners in the field of graphic design	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Drawing Exam • Drawing Exam			
Examination Requirements	Equipped studio			

8. Reading list

Lupton, E., & Phillips, J. (2015). Graphic design. Architectural Press.
Gomez-Palacio, B., & Vit, A. (2012). Graphic design referenced. Rocketport Publishers.
Dabner, D., Stewart, S., & Vickress, A. (2020). Graphic design school. Wiley.
Meggs, P. (1998). A history of graphic design. John Wiley & Sons.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-o						■																															
S4-a				■																															■		
S5-a																																			■		
V1-a																																					
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Vocabulary of Islamic Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1411			
Prerequisite Course(s)	Architectural Design Studio 2: Medium Scale Public Buildings			ARC 1005
Semester Level	Level:	6	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces glossary of architectural and artistic terms of Islamic architecture such as entrances and gates, doors, windows, wooden works, etc. At the end of the course, students are asked to prepare and present an explanation of number of architectural and artistic terms.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

S2-a Analyze the Islamic values and its impact on the formation of the human and built environment at multiple scales.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Entrances and gates	10%
Types of doors	10%
Types of windows	10%
Mashrabiya and Roshan	10%
Wooden works	10%
Types of Mehrab and Minbar	10%
Columns and Arches	10%
Domes and Minarets	10%
Muqarnas	10%
Presentation of various architectural and artistic terms	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

وزيري، ي. (1999). موسوعة عناصر العمارة الاسلامية - الجزء الأول. مكتبة مدبولى.

وزيري، ي. (1999). موسوعة عناصر العمارة الاسلامية - الجزء الثاني. مكتبة مدبولى.

رزق، ع. (2000). معجم مصطلحات العمارة والفنون الإسلامية. مكتبة مدبولى.

Williams, L. & Remsenm W. (1987). Architectural Images Vocabulary. Aga Khan Program.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
S2-a							■																														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Contemporary Mosques Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1412			
Prerequisite Course(s)	Architectural Design Studio 2: Medium Scale Public Buildings			ARC 1005
Semester Level	Level:	6	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Although the architectural style of new mosques varied, they all shared a single goal, the regeneration of traditional Islamic forms combined with a tendency toward a new perspective of contemporary mosque architecture that stressed the development of the mosques' forms, styles and their place in an urban setting. This course comprises design criteria for mosques and analysis various examples of innovative approaches of contemporary mosques in Saudi Arabia and in the world.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

S2-a Analyze the Islamic values and its impact on the formation of the human and built environment at multiple scales.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
The synthesis of form	10%
Orientation: addressing the urban context and the direction to Makkah	10%
The design of the prayer hall	10%
The concept of space and geometry	10%
The architecture of women's space	10%
International examples analysis - Part 1	10%
International examples analysis - Part 2	10%
International examples analysis - Part 3	10%
Regional examples analysis	10%
Local examples analysis	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Kahera, A. et al. (2009). Design Criteria for Mosques and Islamic Centres. Architectural Press.
Mohamed, Y., & O'Kane, B. (2014). The state mosques of the Arabian Gulf. AUC.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
S2-a							■																														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architecture of the Two Holy Mosques**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1413			
Prerequisite Course(s)	Architectural Design Studio 2: Medium Scale Public Buildings			ARC 1005
Semester Level	Level:	6	Year:	2
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course places emphasize on establishment and Saudi Expansions of Al Masjid al-Haram and Prophet Mosque and there effects on urban surroundings. Furthermore, it discusses various topics such as security and safety in Al Masjid al-Haram and Majidi style of the Prophet Mosque. At the end of the course, students are asked to prepare and present creative proposals to facilitate worship in the Two Holy Mosques.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

S2-a Analyze the Islamic values and its impact on the formation of the human and built environment at multiple scales.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Establishment of Al Masjid al-Haram	10%
Effect of Al Masjid al-Haram on urban surrounding before the Saudi Extensions	10%
The Saudi Expansions for Al Masjid al-Haram	10%
Security and safety in Al Masjid al-Haram	10%
Establishment of the Prophet Mosque in Madina	10%
The Saudi Expansion for the Haram of the Prophet Mosque in Madina	10%
Establishment of the Prophet Mosque	10%
Effect of the Prophet Mosque on urban surrounding before the Saudi Extensions	10%
The Saudi Expansions and Majidi style of the Prophet Mosque	10%
Proposals to facilitate worshipping in the two holy mosques	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Ministry of Information. (1992). The two Holy Mosques and their Arch. During the Saudi Reign.
College of architecture and planning. (1999). The architecture of the two holy mosques.
Adawi, N. (1994). The Two Holy Mosques in Saudi Arabia. Gulf Centre for Strategic Studies.
Darus Salam. (2011). Islamic Album Galleries of the Two Holy Mosques.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																																					
S2-a																																					
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Introduction to Urban Spaces Analysis**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1421			
Prerequisite Course(s)	Architectural Design Studio 4: Conventional Structure Systems			ARC 1007
Semester Level	Level:	8	Year:	3
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Analysis is a diagnosis of the city's component pieces, to see the relations between these pieces and to assess their condition. This course discusses the form, appearance, and composition of a city. It also enables students to see where the city needs reshaping. The course deals with different scales: a neighborhood, the center, a suburban area, or a small group of buildings.

4. Intended Learning Outcomes (ILOs)

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to image of the city	10%
Analysis of shape, size and density	10%
Analysis of landform and nature	10%
Analysis of pattern, grain, texture and skyline	10%
Analysis of local climate	10%
Analysis of urban spaces and open spaces	10%
Analysis of routes, local streets and pedestrian areas	10%
Analysis of districts, landmarks, nodes and edges	10%
Analysis of activity structure	10%
Analysis of nonphysical aspects	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.
Lynch, K. (1979). The image of the city. MIT Pr.
Moughtin, C. (2016). Urban Design: Street and Square. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-i																■	■																					
K1-k				■				■																														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Sustainable Landscape Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1422			
Prerequisite Course(s)	Architectural Design Studio 4: Conventional Structure Systems			ARC 1007
Semester Level	Level:	8	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces comprehensive and detailed information on principles, strategies, technologies, tools, and best practices for sustainable landscape. It offers in-depth coverage of a broad range of topics related to sustainable landscape: design, construction, and management for systems of hydrology, vegetation, soils, materials, and human health and well-being.

4. Intended Learning Outcomes (ILOs)

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to sustainable landscape	10%
Predesign: Site selection, Assessment and planning	10%
Sustainable landscape design: Water	10%
Sustainable landscape design: Vegetation and Xeriscaping	10%
Sustainable landscape design: Soils	10%
Sustainable landscape design: Materials and resources	10%
Human health and well-being for sustainable sites	10%
Operations, maintenance, monitoring and stewardship	10%
Innovations: Vertical Landscapes	10%
Case study analysis	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Calkins, M. (2013). The sustainable sites handbook. Wiley.
Sorvig, K., & Thompson, J. (2018). Sustainable Landscape Construction. Island Press.
Dines, N., & Brown, K. (2002). Time-saver standards for landscape architecture. McGraw-Hill.
Cantor, S. & Peck, S. (2008). Green Roofs in Sustainable Landscape Design. Norton & Co.
Bousselot, J., Badertscher, K., & Roll, M. (2005). Sustainable landscaping. Colorado State Uni.
Marietta Loehrlein, M. (2020). Sustainable Landscaping: Principles and Practices. CRC press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-i																■	■																					
K1-k				■				■																														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban topics in Hajj and Umrah**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1423			
Prerequisite Course(s)	Architectural Design Studio 4: Conventional Structure Systems			ARC 1007
Semester Level	Level:	8	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course engages students on urban topics in Hajj and Umrah in a seminar-style learning environment. This course provides an opportunity to analyze relevant research papers, especially those issued by the Institute of Hajj and Umrah Research.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S2-a Analyze the Islamic values and its impact on the formation of the human and built environment at multiple scales.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to the course	10%
Analyze relevant research papers - Part 1	10%
Analyze relevant research papers - Part 2	10%
Analyze relevant research papers - Part 3	10%
Analyze relevant research papers - Part 4	10%
Analyze relevant research papers - Part 5	10%
Analyze relevant research papers - Part 6	10%
Analyze relevant research papers - Part 7	10%
Analyze relevant research papers - Part 8	10%
Analyze relevant research papers - Part 9	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

معهد خادم الحرمين الشريفين لابحاث الحج والعمرة. الملتقيات العلمية لأبحاث الحج والعمرة والزيارة.

Uqu.edu.sa. (2022). from https://uqu.edu.sa/hajj/107535.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S2-a							■																														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

Specifications of

Architecture

Courses

Umm Al-Qura University
College of Engineering and Islamic Architecture
Department of Islamic Architecture

Architecture and Planning Program- Architecture

1 First Year

First Trimester	5 Architectural Formation Principles Studio 1 ARC 1001	3 Architectural Drawings and Presentation ARC 1302	2 Ancient civilizations and Medieval Architecture ARC 1309	2 Mathematics for Architects MTH 1601	4 English Language 1 ELCN1301	2 Islamic Culture 1 ICC 1201		18
Second Trimester	5 Architectural Formation Principles Studio 2 ARC 1002	3 Architectural Models ARC 1306	2 Design Process and Methods ARC 1308	2 Shade, Shadow and Perspective ARC 1303	4 English Language 2 ELCN1302	2 Digital Technology DS1101		18
Third Trimester	5 Fundamental Design Principles Studio ARC 1003	3 Buildings Design Standards 1 ARC 1314	2 Elective Course 1 ARC 140#	2 Physics for Architects PHY 1115	4 English Language 3 ELCN1303	2 The Holy Quran 1 QR 1101		18

2 Second Year

First Trimester	5 Architectural Design Studio 1: Small Scale Public Buildings ARC 1004	3 Building Construction Studio 1: Site Preparation ARC 1101	2 Vector-based Drawing ARC 1203	2 Introduction to Landscape Architecture ARC 1315	2 Architecture of Islamic Civilization ARC 1310	2 Surveying CE 1632	2 Islamic Culture 2 ICC 2202	18
Second Trimester	5 Architectural Design Studio 2: Medium Scale Public Buildings ARC 1005	3 Building Construction Studio 2: Components of Building Structure ARC 1102	2 3D Modeling ARC 1205	2 Local Architectural Heritage ARC 1304	2 Renaissance and Pre-modern Architecture ARC 1311	2 Environmental control Systems ARC 1317	2 Structure 1 CE 1450	18
Third Trimester	5 Architectural Design Studio 3: Vernacular Architecture ARC 1006	3 Building Construction Studio 3: Components of Building Structure ARC 1103	2 Creative Generative-Design ARC 1201	2 Buildings' Technical Installations ARC 1307	2 Principles of Urban Design ARC 1313	2 Elective Course 2 ARC 141#	2 The Holy Quran 2 QR 2102	18

3 Third Year

First Trimester	5 Architectural Design Studio 4: Conventional Structure Systems ARC 1007	3 Building Construction Studio 4: Technical Drawings ARC 1104	2 Principles of Urban Planning ARC 1312	2 Structure Systems in Architecture ARC 1316	4 Introduction to Urban Design Studio ARC 1109		2 Structure 2 CE 2452	18
Second Trimester	5 Architectural Design Studio 5: Long Spans ARC 1008	3 Building Construction Studio 5: Finishes ARC 1105	2 Sustainable Architecture ARC 1305	2 Elective Course 3 ARC 142#	4 Introduction to Urban Planning Studio ARC 1110		2 Structure 3 CE 2454	18
Third Trimester	8 Cooperative Training ARC 1500							8

Architecture Track

4 Fourt Year

First Trimester	5 Architectural Design Studio 6: Sustainable Buildings ARC 2009	3 Execution Design Studio of Residential Buildings ARC 2107	2 Environmental Simulation ARC 2204	2 Twentieth century Architecture ARC 2327	2 Buildings Design Standards 2 ARC 2329	2 Interior Design ARC 2325	2 The Holy Quran 3 QR 3103	18
Second Trimester	5 Architectural Design Studio 7: Mixed-Use Buildings ARC 2010	3 Execution Design Studio of Public Buildings ARC 2108	2 Digital Fabrication and Prototyping ARC 2206	2 Creativity in Architecture ARC 2318	2 Conservation of Architectural Heritage ARC 2320	2 Islamic Culture 3 ICC 3203	2 Arabic Writing and Editing ARS 1500	18
Third Trimester	5 Architectural Design Studio 8: Conservation of Heritage Buildings ARC 2011	3 Execution Design Studio of Blow-Ups Detailing ARC 2106	2 Professional Practice for Architects ARC 2322	2 Architecture of Mega Structures ARC 2323	2 Applications of the Saudi Building Code in Architecture ARC 2326	2 Elective Course 1: Architecture ARC 240#	2 Elective 1 (General Course)	18

5 Fifth Year

First Trimester	5 Architectural Design Studio 9: Professional Practice ARC 2012	2 Graduation Project Research: Architecture ARC 2324	2 Computer-Based Architectural Project Management 1 ARC 2207	2 Smart Buildings ARC 2321	2 Universal Design ARC 2319	2 Biomimetic Architecture ARC 2328	2 Islamic Culture 4 ICC 4204	17
Second Trimester	7 Graduation Project Studio 1: Architecture ARC 3013	2 Computer-Based Architectural Project Management 2 ARC 3208	2 Human and Environment ARC 3321	2 Resilient design ARC 3322	2 The Holy Quran 4 QR 4104	2 Elective 2 (General Course)		17
Third Trimester	7 Graduation Project Studio 2: Architecture ARC 3014	2 Economics of Architectural Projects ARC 3320	2 Architecture of the Future ARC 3323	2 Elective Course 2: Architecture ARC 340#	2 Elective 3 (General Course)			15

SCAN ME

Specialized Elective Courses

1	• Digital Architectural Photography	• Arabic Calligraphy and Ornamentation	• Graphic Design Principles
2	• Vocabulary of Islamic Architecture	• Contemporary Mosques Architecture	• Architecture of the Two Holy Mosques
3	• Introduction to Urban Spaces Analysis	• Sustainable Landscape Architecture	• Urban topics in Hajj and Umrah
1	• Photorealistic Rendering Techniques	• Computer Modeling in Building Construction	• Computerized Applications of Crowd Studies in Architecture
2	• Human Factors in Architecture	• Architectural Criticism	• Selected Topics in Architecture

University Elective Courses

- Specialized technology
- Health and Nutrition
- Entrepreneurship
- Work environment
- Hospitality
- Research and innovation

Credit Hours 255

In-person Online

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Architectural Design Studio 6: Sustainable Buildings**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2009			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
	Sustainable Architecture			ARC 1305
Semester Level	Level: 10		Year: 4	
Responsible Person	….....			
Lecturer(s)	….....		…..	
	….....		…..	
	….....		…..	
	….....		…..	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Environmental sustainability is an essential part of architectural design as passive and active sustainable design principles and technologies are integrated into the design process in a holistic approach. Students will develop previously acquired knowledge of sustainable design into a medium-sized design project. Accordingly, the student can select the appropriate sustainable strategies and technologies to improve the building's environmental performance.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.
K1-j Demonstrate adequate understanding of the means to achieve an environmentally sustainable built environment.
S1-a Make design decisions considering user requirements and various environmental impacts.
S1-c Create innovative concepts and forms for the built environment.
S1-j Effectively employ digital skills in different stages of designing the built environment.
S1-k Apply various means to achieve sustainable built environment.
V1-a Demonstrate self-discipline and punctuality.
V2-c Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility.

5. Contents

Content	Weight
Course identification and introduction to the project	10%
Sustainable design review	10%
Analysis of similar projects and site analysis	10%
Preliminary study of the project and its components	10%
Development of plans and sustainable applications	10%
Development of plans and sustainable applications	10%
Development of plans and sustainable applications	10%
Development of sections and elevations	10%
Full project development	10%
Full project development	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
U.S. Green Building Council. (2010). Green building design and construction.
Smith, P. (2009). Architecture in a Climate of Change. Architectural Press [Imprint].
Saudi building code National committee (2018). Green Construction Code 1001.
Saudi building code National committee (2018). Energy conservation- residential 602.
Saudi building code National committee (2018). Energy conservation- nonresidential 601.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S2-a							■																														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
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Handbook of

Module Specifications P44

1. General Information

Module Name	**Execution Design Studio of Residential Buildings**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2107			
Prerequisite Course(s)	Building Construction Studio 5: Finishes			ARC 1105
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	7.5	Total	13.5
Credit Points	5	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces the students to the fundamentals of execution design drawings based upon previous building construction studios. The student will apply the acquired knowledge on one of his residential projects which had already been designed. Students will learn how to follow dimensioning, coordination, annotating and coding systems. They will also coordinate architectural, structural, and electromechanical requirements.

4. Intended Learning Outcomes (ILOs)

K2-a Differentiate between various types of building materials, building technologies and structural systems.

K2-c Demonstrate an understanding of technical installations in buildings.

S1-e Apply the knowledge of bearing structure and materials selection.

S4-c Perform drawings efficiently and accurately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to execution design drawings	10%
An overview of the selected projects	10%
Execution design drawings of floor plans - Part 1	10%
Execution design drawings of floor plans - Part 2	10%
Execution design drawings of longitudinal section	10%
Execution design drawings of elevations	10%
Execution design drawings the site plan	10%
Water supply and drainage systems	10%
Electrical drawings	10%
Air conditioning drawings	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Styles, K., & Bichard, A. (2012). Working Drawings Handbook. Taylor and Francis.
Spence, W. (1992). Architectural Working drawing. John Wiley & sons.
Bernold, L. (2015). Construction Equipment and Methods: Planning, Innovation, Safety. Wiley.
Mehta, M. (2017). Building Construction: Principles, Materials, and Systems. Pearson.
Levy, S. (2010). Construction databook. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K2-a																					■																	
K2-c																					■																	
S1-e				■																■																		
S4-c																																				■		
V2-d																																						

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Environmental Simulation**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2204			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	2	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course enhances the student's abilities to use software as tools to virtually create spaces or buildings whose geometry, materials, environmental factors and occupancy patterns resemble those of questionable existing or assumed buildings, in such that their environmental performance can be predicted by the software and manipulated by the student. The course introduces the basic concept of simulation with its main requirements. Through the course, student knows about different simulation programs, their required inputs, outputs and level of accuracy. In addition, student specifically learns to use specific software acquiring the expertise of modeling spaces or buildings, ascribing their relevant features and environmental factors, and extracting the required performance parameters, therefore change these parameters and re-run the simulation to optimize the predicted performance.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-a Make design decisions considering user requirements and various environmental impacts.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Introduction to environmental simulation	10%
Basic concept of simulation	10%
Shadows and radiation analysis tools	10%
Energy and thermal simulation - Part 1	10%
Energy and thermal simulation - Part 2	10%
Energy and thermal simulation - Part 3	10%
Daylighting simulation - Part 1	10%
Daylighting simulation - Part 2	10%
Computational fluid dynamic simulation - Part 1	10%
Computational fluid dynamic simulation - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Peters, T., & Peters, B. (2018). Computing the Environment. John Wiley & Sons, Incorporated.
Amani, N. (2021). Building Energy Management with ECOTECT Analysis. Lap Lambert.
Garg, V. et al. (2020). Building Energy Simulation: A Workbook Using DesignBuilderTM. CRC Press.
Ho, L. (2018). EnergyPlus Energy Plus. Hansol Academy.
Clarke, J. et al. (2001). Energy simulation in building design. Butterworth-Heinemann.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
S1-a				■					■		■																										
S1-j				■																															■	■	
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Twentieth century Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2327			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is to introduce the students to twentieth century and modernism architecture. It focusses on the pioneers and emerged movements of this period and their effect on architecture. The course examines the interaction of philosophical, cultural, ethical and socio-economic concepts and architectural form and expression. It explores the relationships between buildings and their historical and cultural contexts.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to global architecture in the twentieth century	10%
Modern Architecture: First generations of pioneers	10%
Modern Architecture: Second generations of pioneers	10%
Late-Modern Architecture: Sculptural Form and Slick Tech	10%
Twenties Revivalism and Structuralism	10%
Machine Simulation	10%
High Tech	10%
Neo and Monumental Expressionism	10%
Deconstruction	10%
Post-Modern Architecture	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Moffett, M. Et al. (2008). A world History of Architecture. McGraw-Hill.
Jencks, C. (1991). The language of post-modern architecture. Academy Editions.
Doordan, D. (2002). Twentieth century architecture. Abrams.
Frampton, K. (2007). Modern Architecture, a Critical History. Thames and Hudson.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-h																■																						
S3-a																																					
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Buildings Design Standards 2**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2329			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces knowledge and skills in analyzing buildings elements and identifying the design standards and considerations of different types of complex buildings; such as hotels, healthcare buildings, office buildings, museums, theaters and cinemas, etc.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Design standards for hotels	10%
Healthcare buildings - Part 1	10%
Healthcare buildings - Part 2	10%
Healthcare buildings - Part 3	10%
Healthcare buildings - Part 4	10%
Office buildings	10%
Museums	10%
Theaters and cinemas	10%
Aquariums	10%
Research centers	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.

De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.

Rosenblatt, A. (2001). Building type basics for museums. J. Wiley & Sons.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Interior Design**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2325			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	2	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces interior design methods by going through the elements and principles of interior design, materials, colors, light and furniture style. Furthermore, this course discusses the emergence and history of interior design focusing on the pioneers and movements of the 20th century and their effect on interior design realm. By the end of the course, students are required to submit a small computer-based interior design project.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

K1-o Demonstrate an understanding of the fine arts as an influence on the quality of the design.

S1-c Create innovative concepts and forms for the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Elements and principles of interior design: Finish materials	10%
Elements and principles of interior design: Space and furnishings	10%
Elements and principles of interior design: Natural and artificial lighting, and acoustics	10%
Modernism in interior design: Art Nouveau, Art Deco and designs of Schröderhuis	10%
De' Style, Bauhus and interior designs of Walter Gropius	10%
Functionalism, Organism and interior designs of Le Corbusier and F. L. Wright	10%
Minimal Art and designs of Donald Judd; International Style and designs of Van Der Rohe	10%
Late modernism and interior designs of Foster, Peter Cook and Kisho Kurokawa	10%
Postmodernism and interior designs of Hasan Fathy and Zaha Hadid	10%
Ecological interiors: Renzo Piano; and green interiors: Ken Yeang	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Drawing Exam • Final Submission of a project/ Written Exam			
Examination Requirements	Equipped studio			

8. Reading list

Massey, A. (2001). Interior Design of the 20th Century. Thames & Hudson.
Ching, F. and Binggeli, C. (2018). Interior Design Illustrated. Wiley.
De Chiara, J. (2001). Time saver standards for interior design and space planning. McGraw-Hill.
Slotkis, S. (2017). Foundations of interior design. Fairchild Books.
Lock, W. (1997). Interior design ideas. Eaglemoss Publications.
Rao, P. (2006). Interior Design (Principles & Practice). Standard Publishers Distributors.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
K1-o						■																															
S1-c	■																																				
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Design Studio 7: Mixed-Use Buildings**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2010			
Prerequisite Course(s)	Architectural Design Studio 6: Sustainable Buildings			ARC 2009
	Buildings Design Standards 2			ARC 2329
Semester Level	Level:	11	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is concerned with mixed-use public buildings that combine three or more uses into one structure such as residential, hotel, retail, parking, cultural, and entertainment, etc. Values, knowledge and skills acquired in previous courses are supplemented and enhanced, and applied creatively to development phases of the project.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Course identification and introduction to the project	10%
Analysis of similar projects and site analysis	10%
Preliminary study of the project and its components	10%
Development of plans and structure system -Part 1	10%
Development of plans and structure system -Part 2	10%
Development of plans and structure system -Part 3	10%
Development of sections and elevations -Part 1	10%
Development of sections and elevations -Part 2	10%
Full project development -Part 1	10%
Full project development -Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.
Baker, G. (2006). Design strategies in architecture. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Execution Design Studio of Public Buildings**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2108			
Prerequisite Course(s)	Execution Design Studio of Residential Buildings			ARC 2107
Semester Level	Level:	11	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	7.5	Total	13.5
Credit Points	5	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces students to an advanced stage of execution design drawings where the student applies previous knowledge to one of his already designed public projects. The students should apply dimensional and coding systems. Furthermore, they should coordinate architectural, structural and electromechanical requirements.

4. Intended Learning Outcomes (ILOs)

K2-a Differentiate between various types of building materials, building technologies and structural systems.

K2-c Demonstrate an understanding of technical installations in buildings.

S1-e Apply the knowledge of bearing structure and materials selection.

S4-c Perform drawings efficiently and accurately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
An overview of the selected projects	10%
Execution design drawings of floor plans - Part 1	10%
Execution design drawings of floor plans - Part 2	10%
Execution design drawings of floor plans - Part 3	10%
Execution design drawings of longitudinal section	10%
Execution design drawings of elevations	10%
Execution design drawings the site plan	10%
Water supply and drainage systems	10%
Electrical drawings	10%
Air conditioning drawings	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Styles, K., & Bichard, A. (2012). Working Drawings Handbook. Taylor and Francis.
Spence, W. (1992). Architectural Working drawing. John Wiley & sons.
Bernold, L. (2015). Construction Equipment and Methods: Planning, Innovation, Safety. Wiley.
Mehta, M. (2017). Building Construction: Principles, Materials, and Systems. Pearson.
Levy, S. (2010). Construction databook. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K2-a																					■																	
K2-c																					■																	
S1-e				■																■																		
S4-c																																				■		
V2-d																																						

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Digital Fabrication and Prototyping**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2206			
Prerequisite Course(s)	Architectural Design Studio 6: Sustainable Buildings			ARC 2009
Semester Level	Level:	11	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	2	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course addresses the Digital Fabrication component of the computer aided architectural design (CAAD). Students will develop their understanding through rapid prototyping and digital fabrication using CNC equipment. Throughout the course, students will practice the use of fabrication tools.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S4-b Execute physical models efficiently.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Introduction	10%
CNC tools	10%
3D Printers	10%
Software interface	10%
Basic tools and techniques - Part 1	10%
Basic tools and techniques - Part 2	10%
Basic tools and techniques - Part 3	10%
Advances tools and techniques - Part 1	10%
Advances tools and techniques - Part 2	10%
3D Print the model	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Tasks, etc. • Practical Exam • Final Submission of a project			
Examination Requirements	Equipped Studio			

8. Reading list

Cline, L. (2015). 3D printing with Autodesk 123D, Tinkercad, and Makerbot. McGraw-Hill.
Awari, G. et al. (2021). Additive manufacturing and 3D printing technology. CRC Press.
Pope, A. (2019). 3D printing issues. Independently published.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
S1-j				■																															■	■	
S4-b																																			■		
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Creativity in Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2318			
Prerequisite Course(s)	Architectural Design Studio 6: Sustainable Buildings			ARC 2009
Semester Level	Level:	11	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The course presents effective techniques of creative processes in the field of architectural design, and how to encourage, activate and maximize creative abilities of the student. Furthermore, this course analyses examples of creative design projects to enhance student's understanding of creative processes and the ability to apply one of them.

4. Intended Learning Outcomes (ILOs)

K1-a Explain processes, methods and fundamentals of designing the built environment.

S1-c Create innovative concepts and forms for the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to creativity	10%
Types of creativity in architecture	10%
Characteristics of creative architect	10%
Stages of creative thinking	10%
Techniques for improving creative thinking	10%
Inspiration in architecture	10%
Architectural design thinking: Case Studies -Part 1	10%
Architectural design thinking: Case Studies -Part 2	10%
Architectural design thinking: Case Studies -Part 3	10%
Architectural design thinking: Case Studies -Part 4	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

نوبي, ح. (2008). الابداع في العمارة (المفهوم - المرتكزات- التطور التاريخي). النشر العلمي والمطابع- جامعة الملك سعود.

نوبي, ح. (2014). الالهام المعماري. النشر العلمي والمطابع- جامعة الملك سعود.

Schinnell, S. (2022). Strategies For Problem-Solving. Independently published.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-a			■																							■											
S1-c	■																																				
S3-a																																					
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Conservation of Architectural Heritage**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2320			
Prerequisite Course(s)	Architectural Design Studio 6: Sustainable Buildings			ARC 2009
Semester Level	Level:	11	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course emphasizes on the importance of architectural heritage. It introduces different criteria for identification, classification, documentation and levels of conservation of architectural heritage. It discusses threats facing architectural heritage such as negligence, lack of maintenance and deterioration significances. This course is considered as an introduction to "Architectural Design Studio 9: Conservation of Heritage Buildings".

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-g Describe the conservation methods of the built heritage.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Importance of conserving architectural heritage	10%
Threats facing architectural heritage	10%
Classification of architectural heritage	10%
Documentation of architectural heritage	10%
Levels of conservation: Preservation	10%
Levels of conservation: Rehabilitation	10%
Levels of conservation: Restoration	10%
Levels of conservation: Reconstruction	10%
Regional experiences of protecting architectural heritage	10%
International experiences of protecting architectural heritage	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Alalouch, C., (2019). Conservation of Architectural Heritage. Springer

Versaci, A. & Bougdah, H. (2022). Conservation of Architectural Heritage. Springer.

Pickard, R. (2012). Policy and law in heritage conservation. Taylor & Francis.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-g							■																														
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Arabic Writing and Editing**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARS 1500			
Prerequisite Course(s)	None			
Semester Level	Level:	11	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	1	Total	3
Credit Points	1	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

هذا المقرر أحد متطلبات جامعة أم القرى يدرسه جميع طلبة الجامعة وهو أحد مقررات الهوية العربية للجامعة ولطلبتها التي تحرص الجامعة على إبرازها ضمن رؤيتها ونقاط تميزها بين الجامعات.

4. Intended Learning Outcomes (ILOs)

S5-a Communicate effectively with others.
V1-a Demonstrate self-discipline and punctuality.
V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.
V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
أهمّيّة السّلامة اللّغويّة في كتابتنا	10%
التعبير الصحيح في الكتابة	10%
اتّقان تركيب الجملة العربيّة	10%
تجويد الأساليب الكتابيّة	10%
تنمية الثروة اللّفظيّة	10%
الأخطاء الكتابيّة	10%
الكتابة الوظيفية	10%
ضبط نصوص لغوية	10%
أنواع القراءة	10%
مهارة الفهم	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

المساعد في المهارات اللغوية أ.د/ رياض الخوام.
فن التحرير العربي ضوابطه وأنماطه. د/ محمد صال الشنطي.
فنون الكتابة ومهارات التحرير العربي. د/ كمال زعفر علي.
أساسيات التحرير وفن الكتابة بالعربية، د/ حسين المناصرة ورفيقيه.
معجم الأخطاء الشائعة، محمد العدناني.
معجم أخطاء الكتَّاب، صلاح الدين الزعبلاوي.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
S5-a																																					
V1-a																																					
V2-b																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Design Studio 8: Conservation of Heritage Buildings**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2011			
Prerequisite Course(s)	Architectural Design Studio 7: Mixed-Use Buildings			ARC 2010
	Conservation of Architectural Heritage			ARC 2320
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio emphasizes the importance of architectural heritage as it applies the different levels of conservation of heritage buildings. This course is an application of the "Conservation of Architectural Heritage" Course, where one of the important heritage buildings in Saudi Arabia is being reused.

4. Intended Learning Outcomes (ILOs)

K1-g Describe the conservation methods of the built heritage.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-f Apply the knowledge of historical, social and cultural references in the design of the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Course identification and introduction to the project	10%
Conservation of architectural heritage in Saudi Arabia review	10%
Analysis of similar projects and site analysis	10%
Preliminary study of the project and its components	10%
Development of reused plans -Part 1	10%
Development of reused plans -Part 2	10%
Development of reused plans -Part 3	10%
Development of sections and elevations	10%
Full project development -Part 1	10%
Full project development -Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Alalouch, C., (2019). Conservation of Architectural Heritage. Springer

Versaci, A. and Bougdah, H. (2022). Conservation of Architectural Heritage. Springer.

Pickard, R. (2012). Policy and law in heritage conservation. Taylor & Francis.

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.

Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.

De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-g							■																														
S1-d			■	■																					■												
S1-f				■	■									■																								
S1-j				■																															■	■	
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Execution Design Studio of Blow-Ups Detailing**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2106			
Prerequisite Course(s)	Execution Design Studio of Public Buildings			ARC 2108
Semester Level	Level:	12	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	6	Total	12
Credit Points	4	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The main concern and focus of this course is about blow-ups detailing drawings. The student will design various details of the public building project which had been submitted in the previous execution design studio.

4. Intended Learning Outcomes (ILOs)

K2-a Differentiate between various types of building materials, building technologies and structural systems.

S1-c Create innovative concepts and forms for the built environment.

S1-e Apply the knowledge of bearing structure and materials selection.

S4-c Perform drawings efficiently and accurately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to blow-ups detailing	10%
Partition walls details	10%
Curtain walls	10%
Suspended ceilings	10%
Skylight	10%
Special stairs construction	10%
Front counter	10%
Internal fountains and water features	10%
Landscape features	10%
Details of other appropriate items	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Dawson, S. (2002). Architect's working details. Emap Architecture.

Dickinson, D. (1997). Expressive details. McGraw-Hill.

Allen, E., & Rand, P. (2016). Architectural detailing. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K2-a																					■																	
S1-c	■																																				
S1-e				■																■																	
S4-c																																			■		
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Professional Practice for Architects**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2322			
Prerequisite Course(s)	Architectural Design Studio 7: Mixed-Use Buildings			ARC 2010
Semester Level	Level:	12	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is an introduction to principles of professional practice, focusing on the historical, ethical, and legal framework of the practice of architecture in Saudi Arabia. The course includes a review to the responsibility of architects in the development of communities and environments. It emphasizes addressing competency requirements matching professional practice expectation in the field of architecture.

4. Intended Learning Outcomes (ILOs)

K3-a Identify the professional ethics and responsibilities related to the built environment.

K3-b Identify the relevant laws, rules and legislations that regulate the built environment.

S1-g Apply the knowledge of professional and regulatory requirements.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
An introduction to the state of architectural professional practice	10%
The professional role of the architect	10%
Competencies of an architect	10%
Ethics in architectural profession	10%
Regulations and rules that govern the professional practice	10%
Practicing the architectural profession in Saudi Arabia	10%
Principles for administering architectural or consulting offices	10%
Successful architectural management of an architectural office	10%
Portfolio preparation	10%
Writing of curriculum vitae (CV)	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Saudi building code National committee (2018). The Saudi building code general 201.

AIA. (2017). The architecture student's handbook of professional practice. Wiley.

Chapell, D. & Dunn, M. (2015). The Architect in Practice, Wiley-Blackwell.

Piven, P. et al. (2008). Essentials of starting, assessing, & transitioning a design firm. Wiley.

صالح العشيش. (1996). إدارة تنفيذ المشروعات الهندسية. مكتبة العبيكان

غسان الدوسري. (2018). ملاحظات على إدارة مشاريع الهندسة والإنشاء

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K3-a													■																	■		■						
K3-b												■																										
S1-g				■																								■										
V2-b																																						

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Architecture of Mega Structures**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2323			
Prerequisite Course(s)	Buildings Design Standards 2			ARC 2329
Semester Level	Level:	12	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course provides a deeper understanding of mega structures buildings concepts, design structures and components. It introduces students to different mega structures buildings' types via case studies such as medical cities, multi-function buildings, skyscrapers, airports, train stations and stadiums. This course covers the analysis of space program, the design philosophy, design concept and structural elements of these kinds of buildings. Students learn to develop their own understanding of designing and analyzing different types of mega structures buildings.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K2-a Differentiate between various types of building materials, building technologies and structural systems.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Mega structures: The matter of size and function	10%
Airports	10%
Train stations	10%
Skyscrapers: Futuristic	10%
Skyscrapers: Realistic	10%
Colleges and universities	10%
Sport cities and stadiums	10%
Holiday Resorts	10%
Regional shopping centers	10%
Mega structures: principles and presentations	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Engel H. (2007). Structure systems. Praeger.

Graham, I. (2012). Megastructures: Tallest, Longest, Biggest, Deepest. Firefly Books.

Schierle, G. (2006). Architectural structures. University of Southern California.

Sev, A. (2015). Innovations in Tall Building Design and Technology. Scholars' Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K2-a																					■																
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban topics in Hajj and Umrah**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 1423			
Prerequisite Course(s)	Architectural Design Studio 4: Conventional Structure Systems			ARC 1007
Semester Level	Level:	8	Year:	3
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course engages students on urban topics in Hajj and Umrah in a seminar-style learning environment. This course provides an opportunity to analyze relevant research papers, especially those issued by the Institute of Hajj and Umrah Research.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S2-a Analyze the Islamic values and its impact on the formation of the human and built environment at multiple scales.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to the course	10%
Analyze relevant research papers - Part 1	10%
Analyze relevant research papers - Part 2	10%
Analyze relevant research papers - Part 3	10%
Analyze relevant research papers - Part 4	10%
Analyze relevant research papers - Part 5	10%
Analyze relevant research papers - Part 6	10%
Analyze relevant research papers - Part 7	10%
Analyze relevant research papers - Part 8	10%
Analyze relevant research papers - Part 9	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

معهد خادم الحرمين الشريفين لابحاث الحج والعمرة. الملتقيات العلمية لأبحاث الحج والعمرة والزيارة.

Uqu.edu.sa. (2022). from https://uqu.edu.sa/hajj/107535.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S2-a							■																														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Design Studio 9: Professional Practice**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2012			
Prerequisite Course(s)	Architectural Design Studio 8: Conservation of Heritage Buildings			ARC 2011
	Professional Practice for Architects			ARC 2322
Semester Level	Level:	13	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	14	Total	24
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is concerned with designing a real project. It illustrates how to form strong basics of architectural professional practice. Values, knowledge and skills acquired in previous courses are supplemented and enhanced, and applied creatively to development phases of the project. The location of the project is determined in coordination with the relevant authorities in the public or private sectors, if any, or by the coordinator of the studio.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K3-b Identify the relevant laws, rules and legislations that regulate the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Defining project program and identify the relevant laws, rules and legislations	10%
Analysis of similar projects; and site analysis	10%
Preliminary study of the project and its components	10%
Development of plans and structure system -Part 1	10%
Development of plans and structure system -Part 2	10%
Development of plans and structure system -Part 3	10%
Development of sections and elevations -Part 1	10%
Development of sections and elevations -Part 2	10%
Full project development -Part 1	10%
Full project development -Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.
Baker, G. (2006). Design strategies in architecture. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K3-b												■																										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Graduation Project Research: Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2324			
Prerequisite Course(s)	Architectural Design Studio 8: Conservation of Heritage Buildings ARC 2011			
Semester Level	Level:	13	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	10	Total	12
Credit Points	4	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is an introduction to "Graduation Project Studio 1: Architecture". It focuses on choosing a graduation project title that matches the student's approach. Furthermore, student will learn how to prepare an actual project methodology through studying and analyzing past experiences of similar projects locally, regionally and internationally. This course enables the student to choose appropriate site, prepare detailed space program, and define planning and design standards for the selected project. Moreover, this course acquaints the students with scientific report writing skills as they are required to submit a well-written report on the cited studies.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K3-b Identify the relevant laws, rules and legislations that regulate the built environment.

S3-a Independently seek information and use it appropriately.

S3-b Analyze data from a variety of sources.

S3-c Formulate results of different experiments.

V2-e Complete tasks under pressure and within the expected time frame.

5. Contents

Content	Weight
Scientific research objectives and its scope	10%
Research problem, hypothesis and methodology	10%
Selecting the graduation project	10%
Analyses of previous similar projects - Part 1	10%
Analyses of previous similar projects - Part 2	10%
Specifying and selecting the appropriate site	10%
Defining the project program	10%
Development of the project program details	10%
Defining planning and design standards, laws, rules and legislations	10%
Defining vision for the selected graduation project	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	0	Training	0
	Practical	0	Research Pro	20	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Report stages • Oral Exam • Final Report Submission			
Examination Requirements	Classroom			

8. Reading list

Deetjen, T. (2020). Published: a Gide. Productive Academic.
Schluter, W. (1926). How to do research work. Prentice-Hall, Inc.
Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K3-b												■																										
S3-a																																					
S3-b		■																																		■	■
S3-c		■																																			
V2-e																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Computer-Based Architectural Project Management 1**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2207			
Prerequisite Course(s)	Architectural Design Studio 8: Conservation of Heritage Buildings ARC 2011			
Semester Level	Level:	13	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	3.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The course is intended for undergraduate students with architectural background. It introduces the terminology of construction management, types of construction projects, and responsibilities of construction managers. A description of the contract documents, different types of construction contracts, project delivery methods and planning (critical path analysis) are provided as an essential part of the course. Computer-based applications in construction management are introduced during the course.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

K1-n Illustrate fundamentals of project management of built environment sector.

S1-i Apply the knowledge of project management.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Building projects: importance - types - constraints and challenges	10%
Construction Management: initiation - roles - process, and tools	10%
Construction contracts: types - documents and parties - contract management	10%
Contractual relationships	10%
Projects delivery methods	10%
Planning: concept - steps - network diagrams	10%
Planning: time and cost estimation	10%
Computer application in construction project management - Part 1	10%
Computer application in construction project management - Part 2	10%
Computer application in construction project management - Part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Hegazy, T. (2001). Computer-based construction project management. Pearson.
Sears, K. (2015). Construction Project Management. 6th Edition. John Wiley and Sons.
Liebing, W. (2007). Construction of Architecture: from Design to Built. John Wiley and Sons.
Oberlender, G. (2022). Project Management for Engineering and Construction. McGraw-Hill.
Jackson, B. (2020). Construction management jumpstart (3rd ed.). Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
K1-n																							■										■	■			
S1-i																												■					■	■			
S1-j				■																															■	■	
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Smart Buildings**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2321			
Prerequisite Course(s)	Buildings Design Standards 2			ARC 2329
Semester Level	Level:	13	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

We live in times of change. The digital revolution is impacting many of the world's established orders. This course explores how technology transforming architecture and what this means for architects. From smart materials and 3D printing to bricklaying robots and data-driven design, the course traces the seismic shifts in the way that architecture is both conceived and created, and how this innovation is delivering some of the promises of improved communication, flexibility, wellbeing, productivity, etc.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S1-c Create innovative concepts and forms for the built environment.

S3-a Independently seek information and use it appropriately.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Introduction to smart buildings	10%
Technological revolution	10%
Smart materials -Part 1	10%
Smart materials -Part 2	10%
Smart building automation system	10%
Exploring geometries and buildings with robots	10%
Green and Smart Buildings	10%
Data driven design	10%
Case study analysis -Part 1	10%
Case study analysis -Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Bakker, R. (2020). Smart Buildings: Technology and the Design of the Built Environment. RIBA Pub.
Ku?feog?lu, S. (2021). The home of the future. Springer.
Jadhav, N. (2016). Green and smart buildings. Springer.
Swathika, O. et al. (2022). Smart Buildings Digitalization. Taylor & Francis Group.
Littlewood, J. (2020). Sustainability in energy and buildings 2020. Springer.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-k				■				■																													
S1-c	■																																				
S3-a																																					
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Universal Design**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2319			
Prerequisite Course(s)	Buildings Design Standards 2			ARC 2329
Semester Level	Level: 13		Year: 5	
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Universal Design is a design philosophy that aims to create an inclusive community where everyone can participate to the fullest extent possible. The universal design benefits users with different capabilities, limitations, and needs. Therefore, this course focuses on strategies for designing an accessible and equal built environment. Through best practices, the course discusses how universal design is reflected on the design solutions.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Background about disability, diversity issues and origins of universal design	10%
Accessible, inclusive and universal design concepts; and Anthropometrical dimensions	10%
Architectural design considerations: Ramps, Elevators and Platform lift	10%
Architectural design considerations: Stars, Railings and Handrails	10%
Architectural design considerations: Entrances, Corridors, Vestibules and Doors	10%
Architectural design considerations: Rest rooms	10%
Case study; problem determination and solution finding	10%
Special provisions regarding accessible buildings and facilities	10%
Wayfinding assistance	10%
Urban-design scale considerations	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Hamraie, A. (2017). Building access: Universal Design and the Politics of Disability. Minnesota Press.
Steinfeld, E., & Maisel, J. (2014). Universal design. MTM.
Preiser, W., & Ostroff, E. (2020). Universal design handbook. McGraw-Hill.
Saudi building code National committee (2018). The Saudi building code general 201.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
Ramsey, C. & American Institute of Architects. (2017). Architectural graphic standards. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-h																■																						
S1-d			■	■																					■												
V2-a										■																											
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Biomimetic Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2328			
Prerequisite Course(s)	Architectural Design Studio 8: Conservation of Heritage Buildings			ARC 2011
Semester Level	Level:	13	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Biomimicry is a new science that studies nature's models and then emulates these forms, processes, systems, and strategies to solve human problems. Biomimetic architecture is a multi-disciplinary scientific approach to sustainable design that goes beyond using nature as inspiration for aesthetics but rather deeply studying and applying construction principles that are found in natural environments and species.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction: What dose 'biomimicry' mean?	10%
Biomimicry definitions and concept	10%
Application of Biomimecry: Organism Level	10%
Application of Biomimecry: Behavior Level	10%
Application of Biomimecry: Ecosystem Level	10%
Structuring Biomimicry, improving Building's resiliency	10%
Material based on Biomimetic	10%
Examples of Biomimicry in Architecture - Part 1	10%
Examples of Biomimicry in Architecture - Part 2	10%
Examples of Biomimicry in Architecture - Part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Pawlyn, M. (2020). Biomimicry in architecture. RIBA Publishing.

Benyus, J. (2009). Biomimicry. Perennial.

Benyus, J. (2002). Biomimicry : innovation inspired by nature.

Eggermont, M. (2022). Biomimicry for Materials, Design and Habitats. Elsevier.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-k				■				■																													
S1-c	■																																				
S1-d			■	■																					■												
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Graduation Project Studio 1: Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3013			
Prerequisite Course(s)	Graduation Project Research: Architecture			ARC 2324
	Architectural Design Studio 9: Professional Practice			ARC 2012
Semester Level	Level: 14		Year: 5	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	14	Self-study	20.5	Total	34.5
Credit Points	12	CPs.				
Credit Hours	7	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is the first phase of the graduation project. Each student will work independently with his selected project approved in previous semester through the "Graduation Project Research" course. The practical application of the project, its viability and constructability is significant. The broader socio-cultural issue of adaptability with the building designs in Saudi Arabia is to be understood and addressed so that the project is justified within its setting. This phase concentrates on developing a conceptual design project based on what has been achieved in graduation research project course. Students will analyze the final detailed project space program, analyze project site, set design alternatives and evaluate these alternatives based on specific criteria. It is expected that students will apply various skills and knowledge accumulated over the past academic years.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the studio	10%
Project space program review	10%
Site analysis - Part 1	10%
Site analysis - Part 2	10%
Developing the first concept	10%
Developing the second concept	10%
Developing the third concept	10%
Evaluating the concepts based on assessment criteria	10%
Conceptual design project development - Part 1	10%
Conceptual design project development - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	140	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.
Baker, G. (2006). Design strategies in architecture. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Computer-Based Architectural Project Management 2**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3208			
Prerequisite Course(s)	Computer-Based Architectural Project Management 1			ARC 2207
Semester Level	Level:	14	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	3.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is a continuation of "Computer-Based Architectural Project Management 1" course. It covers a variety of topics including scheduling (resource allocation and leveling), project control, and construction supervision. Furthermore, computer-based applications in construction management are introduced during the course.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

K1-n Illustrate fundamentals of project management of built environment sector.

S1-i Apply the knowledge of project management.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Scheduling: concept and analysis	10%
Time programming of project: critical path method (CPM)	10%
Applications on critical path method (CPM)	10%
Scheduling with limited resources	10%
Practical application on scheduling: assignment of activities, resources and materials	10%
Supervision of project	10%
Administrative procedures on construction site	10%
Computer application in construction project management - part 1	10%
Computer application in construction project management - part 2	10%
Computer application in construction project management - part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Hegazy, T. (2001). Computer-based construction project management. Pearson.
Sears, K. (2015). Construction Project Management. 6th Edition. John Wiley and Sons.
Liebing, W. (2007). Construction of Architecture: from Design to Built. John Wiley and Sons.
Oberlender, G. (2022). Project Management for Engineering and Construction. McGraw-Hill.
Jackson, B. (2020). Construction management jumpstart (3rd ed.). Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
K1-n																							■										■	■			
S1-i																												■					■	■			
S1-j				■																															■	■	
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Human and Environment**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3321			
Prerequisite Course(s)	Architectural Design Studio 9: Professional Practice			ARC 2012
Semester Level	Level:	14	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course provides opportunities for students to conduct in-depth investigations of selected topics in the mutual integration between human and environment. It raises the student's familiarity with contemporary human issues, especially those related to environmental preservation and the impact of the information revolution on the built environment, etc. Through weekly seminars, the students prepare presentations on specific topics and engage with colleagues in discussion and brainstorming.

4. Intended Learning Outcomes (ILOs)

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to environmental threats	10%
The distinguished vision of Islam towards the environment	10%
Depletion of natural resources	10%
Desertification	10%
Waste issues	10%
Population explosion	10%
The industrial revolution and its impact on the environment	10%
The revolution of ICTs and its impact on the built environment	10%
Globalization: its concept and impact on the local identity	10%
The role of the architect in preserving the environment	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Smith, K. (2013). Environmental hazards. Routledge.
Khan, W. (2012). Islam towards environment protection. Khan.
Khalid Fazlul, K. (1998). Islam and the environment. Ta-Ha Publishers.
Acevedo, L. (2018). The Population Explosion. Amazon Digital Services.
Stearns, P. (2020). The Industrial Revolution in World History. Routledge.
Sachs, J. (2020). The Ages of Globalization. Columbia University Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-i																■	■																					
S3-a																																					
S5-a																																			■		
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Resilient design**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3322			
Prerequisite Course(s)	Architectural Design Studio 9: Professional Practice			ARC 2012
Semester Level	Level:	14	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Resilient design is the intentional design of buildings, landscapes, communities, and regions in order to respond to natural and manmade disasters and disturbances-as well as long-term changes resulting from climate change-including sea level rise, increased frequency of heat waves, and regional drought. This course discusses this topic by introducing definition, principles and strategies of resilient design.

4. Intended Learning Outcomes (ILOs)

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

K1-j Demonstrate adequate understanding of the means to achieve an environmentally sustainable built environment.

S1-k Apply various means to achieve sustainable built environment.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to climate change	10%
Definition of resilient design	10%
The resilient design principles	10%
Strategies for resilient design - Part 1	10%
Strategies for resilient design - Part 2	10%
Strategies for resilient design - Part 3	10%
Strategies for resilient design - Part 4	10%
Strategies for resilient design - Part 5	10%
Special projects - Part 1	10%
Special projects - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Trogal, K. (2019). Architecture and Resilience. Taylor & Francis.
Watson, D., & Adams, M. (2013). Design for flooding. Wiley.
Saito, O. (2017). Strategies for building resilience against climate and ecosystem changes. Springer.
The American Institute of Architects. (2017). Architectural Graphic Standards. John Wiley and Sons.
Raof, S. et al. (2009). Adapting Buildings and Cities for Climate Change. Elsevier.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-i																■	■																					
K1-j																■								■														
S1-k																			■																		
V2-b																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Graduation Project Studio 2: Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3014			
Prerequisite Course(s)	Graduation Project Studio 1: Architecture			ARC 3013
Semester Level	Level:	15	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	14	Self-study	25	Total	39
Credit Points	13	CPs.				
Credit Hours	7	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This final studio is considered as the second phase of the graduation project. It is based on the cumulative knowledge and skills developed in all the previous design studios, course work and professional experience. This phase concentrates on developing a complete design project based on what has been achieved in the previous phase. This studio is the culmination of work where students present their professional capacity in architecture.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.
S1-b Solve complicated problems associated with the built environment.
S1-c Create innovative concepts and forms for the built environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S1-j Effectively employ digital skills in different stages of designing the built environment.
V2-e Complete tasks under pressure and within the expected time frame.

5. Contents

Content	Weight
Development of plans -Part 1	10%
Development of plans -Part 2	10%
Development of plans -Part 3	10%
Development of plans -Part 4	10%
Development of sections and elevations -Part 1	10%
Development of sections and elevations -Part 2	10%
Full project development -Part 1	10%
Full project development -Part 2	10%
Full project development -Part 3	10%
Full project development -Part 4	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	140	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Neufert, E. et al. (2019). Architects' Data. Wiley-Blackwell.
Watson, D., & Crosbie, M. (2005). Time-saver standards for architectural design. McGraw-Hill.
De Chiara, J., & De Chiara, J. (2001). Time-saver standards for building types. McGraw-Hill.
Baker, G. (2006). Design strategies in architecture. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V2-e																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Economics of Architectural Projects**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3320			
Prerequisite Course(s)	Graduation Project Studio 1: Architecture			ARC 3013
Semester Level	Level:	15	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course acquaints students with the concepts of economics and its impact on construction, and qualifies them to make proper economic decisions concerning architectural projects. The course includes a general explanation of the time value of money and cash flow analysis. The course describes the factors that affect building costs and explains the effect of technical specifications on operation costs. Principles of bill-of-quantity (BOQ), cost estimation, and cash flow analysis are illustrated. Concept of value engineering and some advanced building economic concepts are introduced at the end of the course.?

4. Intended Learning Outcomes (ILOs)

K1-h Explain the impact of different aspects on the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

K1-m Illustrate fundamentals of economics of the built environment sector.

S1-h Apply the knowledge of built environment economics.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Factors affecting Building costs	10%
Time value of money: present and future values	10%
Cash flow Analysis	10%
Energy calculation methods: effect on current and future costs of building	10%
Specifications of architectural works	10%
Bill-of-Quantity (BOQ) and cost estimation	10%
Applications on cost estimation: Conceptual and Detailed Estimating	10%
Computer-Based Estimation	10%
Advanced concepts of building economics: BIM and BOQ	10%
Value engineering: concept, principles and standards	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Dell'Isola, D. (2002). Architect's Essentials of Cost Management. John Wiley & Sons.
Gould, E. (2010). Managing the Construction Process. Prentice - Hall.
Franser, M. (2008). Global Engineering Economics. Pearson Education.
Liebing, W. (2008). Construction of Architecture. John Wiley and Sons.
Jackson J. (2010). Construction Management Jump Start. Wiley Publishing.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-h																■																						
K1-k				■				■																														
K1-m																							■							■		■			■			
S1-h																												■						■			
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architecture of the Future**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3323			
Prerequisite Course(s)	Smart Buildings			ARC 2321
Semester Level	Level:	15	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Future Architecture is a multi-dimensional component of contemporary design field. The change of human life style triggers rapid transformation of the built environment and the future of architecture focuses on the limits and visions of this change. This course examines the future of architecture with the advanced knowledge of architectural utopias, dystopias, anticipatory systems and impacts of technological developments in human life/space.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

S1-c Create innovative concepts and forms for the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Basics of future architecture	10%
Future architecture as an architectural prediction strategy	10%
Architectural Utopias -Part 1	10%
Architectural Utopias -Part 2	10%
Architectural Dystopias	10%
Basics of anticipation	10%
Anticipatory Systems in architecture	10%
Examples analysis -Part 1	10%
Examples analysis -Part 2	10%
Examples analysis -Part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Eaton, R. (2002). Ideal Cities, Utopianism and the (Un)built Environment. Thames & Hudson.
Galilee, B. (2020). Radical Architecture of the Future. Phaidon Press Incorporated.
Dittmer, L. (2012). The future of architecture. Creative Education.
Blowers, A., Hamnett, C., & Sarre, P. (2014). The Future of Cities. Taylor and Francis.
Ween, C. (2013). Future cities. Teach Yourself.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
S1-c	■																																				
S3-a																																					
V1-a																																					
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

Specifications of

Architecture

Elective Courses

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Module Specifications P44

1. General Information

Module Name	**Photorealistic Rendering Techniques**
Module Level	Bachelor of Architecture and Planning (Architecture)
Code	ARC 2401
Prerequisite Course(s)	Architectural Design Studio 7: Mixed-Use Buildings ARC 2010
Semester Level	Level: 12 Year: 4
Responsible Person	….....
Lecturer(s)	…..... ….....
	…..... ….....
	…..... ….....
	…..... ….....
Language	English/ Arabic
Relation to Curriculum	Elective Course

2. ECTS/ Workload

Workload Hours per Week	Contact 2 Self-study 4 Total 6
Credit Points	2 CPs.
Credit Hours	2 CHs.
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities

3. Module Summary

Photorealistic rendering is a type of 3D rendering where the final result is very difficult to distinguish from reality, from a photograph. This course introduces photorealistic rendering techniques and the final adjustments in post-production, such as adding the background or the people cutouts. It is at this stage where students make every minor tweak to the image (e.g. last adjustments to hue, saturation, contrast, etc.).

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S5-b Utilize computer programs effectively in communication.

V1-a Demonstrate self-discipline and punctuality.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Introduction to Photorealistic Rendering	10%
Global Illumination	10%
Volume Rendering and Participating Media	10%
Subsurface Scattering	10%
Image-based Rendering	10%
High Dynamic Range Imaging	10%
Image-based Lighting	10%
Reconstruction of Reflectance	10%
Bidirectional Texture Function	10%
Radiance Transfer	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Kurachi, N. (2020). The magic of computer graphics. A K Peters/CRC Press.
Sakas, G. (2012). Photorealistic Rendering Techniques. Springer.
Sannino, C. (2019). Chiaroscuto with V-Ray for photorealistic rendering. GC Edizioni.
Sannino, C. (2013). Photography & rendering with V-Ray. GC Edizioni.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
S1-j				■																															■	■	
S5-b																																			■		
V1-a																																					
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Computer Modeling in Building Construction**
Module Level	Bachelor of Architecture and Planning (Architecture)
Code	ARC 2402
Prerequisite Course(s)	Architectural Design Studio 7: Mixed-Use Buildings ARC 2010
Semester Level	Level: 12 Year: 4
Responsible Person	……
Lecturer(s)	…… ……
	…… ……
	…… ……
	…… ……
Language	English/ Arabic
Relation to Curriculum	Elective Course

2. ECTS/ Workload

Workload Hours per Week	Contact 2 Self-study 4 Total 6
Credit Points	2 CPs.
Credit Hours	2 CHs.
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities

3. Module Summary

The construction industry is facing low rate of productivity in construction phase when compared to other industries. This course is an introduction of building information modeling (BIM) in construction industry. The advantages of this approach and perspectives of the transition to this design technologies, construction process management, and operation are stated. Furthermore, this course introduces basics of using BIM programs in building construction field.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S5-b Utilize computer programs effectively in communication.

V1-a Demonstrate self-discipline and punctuality.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
BIM systems: Definition, emergence and development	10%
Importance of BIM systems for owners, designers and contractors	10%
BIM programs: Design and analysis programs, and interoperability	10%
Efficiency of using BIM during construction process	10%
BIM Solutions - Part 1	10%
BIM Solutions - Part 2	10%
Comparing traditional methods of calculating quantities with BIM system	10%
Computer Modeling in Building Construction - Part 1	10%
Computer Modeling in Building Construction - Part 2	10%
Computer Modeling in Building Construction - Part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Crotty, R. (2016). Impact of building information modelling. Routledge.
Borrmann, A., et al. (2022). Building Information Modeling. Springer.
Garrigo?s, A., et al. (2019). BIM in design, construction and operations. WIT Press.
Issa, R., & Olbina, S. (2015). Building information modeling: Applications and Practices. ASCE.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
S1-j				■																															■	■	
S5-b																																			■		
V1-a																																					
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Computerized Applications of Crowd Studies in Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 2403			
Prerequisite Course(s)	Architectural Design Studio 7: Mixed-Use Buildings			ARC 2010
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Generally, every public building design requires the consideration of the interaction of people with each other and the space to ensure the user's safety. This course thus discusses necessitates measures to manage and control the movement of people around and within public building as well as catering for emergency evacuation of the crowd. It introduces design strategies for direction in crowd control to improve design for safety and security during events and emergency in such public places.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S5-b Utilize computer programs effectively in communication.

V1-a Demonstrate self-discipline and punctuality.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Crowds: Definitions, concepts and types	10%
Crowd disasters: Causes and triggers	10%
Building codes and regulations	10%
Egress system fundamentals	10%
Space capacity and crowds	10%
Perceived crowding	10%
Crowd management strategies - Part 1	10%
Crowd management strategies - Part 2	10%
Computer applications of crowd studies in architecture - part 1	10%
Computer applications of crowd studies in architecture - part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Still, G. (2019). Introduction to Crowd Science. CRC Press

Kemp, C. & Smith, P. (2010). Case Studies in Crowd Management. Entertainment Technology Press.

Tubbs, J., & Meacham, B. (2007). Egress design solutions. Wiley.

Marx, B. (2018). Crowd Management Made Easy. Independent Publishing Platform

Saudi building code National committee. (2018). Saudi Building Code: SBC 201.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
S1-j				■																															■	■	
S5-b																																			■		
V1-a																																					
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Human Factors in Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3401			
Prerequisite Course(s)	Graduation Project Studio 1: Architecture			ARC 3013
Semester Level	Level:	15	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

An introductory course that introduces fundamental concepts and theories related to the interaction of people with their natural and built environments. Topics such as privacy, perception, cognition, proxemics, personal space, territoriality, symbolism, social and cultural aspects of the environment, among others will be examined and their influence on architectural theory and practice will be highlighted. The aim is to expand students' understanding of human factors as related to architecture and urban design, and how to implement them in design studios to optimize design solutions.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction	10%
What is environmental psychology?	10%
The mutual relationship between people and the built environment	10%
Proxemics Anthropometrics and Ergonomics	10%
Perception and cognition	10%
Visual perception - Part 1	10%
Visual perception - Part 2	10%
Visual perception - Part 3	10%
Hearing perception	10%
Case study analysis	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Lang, J. (1987). Creating Architectural Theory. Van Nostrand Reinhold.
Deasy, C. (1990). Designing places for people. Whitney Library of Design Publishers.
Mitrovic, B. (2013). Visuality for architects. Virginia Press.
Lang, J. (1974). Designing for Human Behavior. Dowden.
Culley, S. (2011). Human behaviour in design. Design Society.
Lindemann, U. (2003). Human Behaviour in Design: Individuals, Teams, Tools. Springer.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-i																■	■																					
S3-a																																					
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Architectural Criticism**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3402			
Prerequisite Course(s)	Graduation Project Studio 1: Architecture			ARC 3013
Semester Level	Level:	15	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course focuses on the types and methods of architectural criticism. It includes studying the techniques of critical expression, and evaluation of architectural projects. The course emphasizes the variety of contemporary architectural school of thought and how to apply different types, methods and techniques (styles) of criticism to it. Students are required to practice architectural criticism in term of local and international case studies.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction: Philosophy and role of architectural criticism	10%
Architectural criticism and creativity relation	10%
The architectural criticism criteria: Subjective criteria	10%
The architectural criticism criteria: Contextual criteria	10%
The architectural criticism criteria: Impressionistic criteria	10%
The architectural criticism criteria: Self-criteria	10%
New directions in architectural criticism	10%
Process of architectural criticism	10%
International case studies	10%
Local case studies	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Colquhoun, A., & Frampton, K. (2009). Collected essays in architectural criticism. Black Dog.
Wang, W. (2022). On the duty and power of architectural criticism. Park books.
Ramadan, M. (2022). Architectural Criticism as a Main Improvement strategy. IJAER.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																																					
K1-i																■	■																					
S3-a																																					
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Selected Topics in Architecture**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARC 3403			
Prerequisite Course(s)	Graduation Project Studio 1: Architecture			ARC 3013
Semester Level	Level:	15	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course engages students on specialized subject matter in a seminar-style learning environment and provides an opportunity to complement existing courses. It has a changing syllabus, which varies on yearly basis according to the updated topics. This course offers opportunity for study of advanced architectural topics tailored to fit the requirements of architecture student in a senior standing.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to the course	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Analysis of case studies	10%
Analysis of case studies	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Rybnov, E. et al. (2021). Contemporary Problems of Architecture and Construction. Taylor & Francis.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-i																■	■																					
S3-a																																					
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

Specifications of

Urban Design

Courses

Architecture and Planning Program- Urban Design

جامعة أم القرى
UMM AL-QURA UNIVERSITY

ASIIN Accredited Degree Programme 2018-2024

VISION رؤية 2030 المملكة العربية السعودية KINGDOM OF SAUDI ARABIA

1 First Year

First Trimester	5 Architectural Formation Principles Studio 1 ARC 1001	3 Architectural Drawings and Presentation ARC 1302	2 Ancient civilizations and Medieval Architecture ARC 1309	2 Mathematics for Architects MTH 1601	4 English Language 1 ELCN1301	2 Islamic Culture 1 ICC 1201		18
Second Trimester	5 Architectural Formation Principles Studio 2 ARC 1002	3 Architectural Models ARC 1306	2 Design Process and Methods ARC 1308	2 Shade, Shadow and Perspective ARC 1303	4 English Language 2 ELCN1302	2 Digital Technology DS1101		18
Third Trimester	5 Fundamental Design Principles Studio ARC 1003	3 Buildings Design Standards 1 ARC 1314	2 Elective Course 1 ARC 140#	2 Physics for Architects PHY 1115	4 English Language 3 ELCN1303	2 The Holy Quran 1 QR 1101		18

2 Second Year

First Trimester	5 Architectural Design Studio 1: Small Scale Public Buildings ARC 1004	3 Building Construction Studio 1: Site Preparation ARC 1101	2 Vector-based Drawing ARC 1203	2 Introduction to Landscape Architecture ARC 1315	2 Architecture of Islamic Civilization ARC 1310	2 Surveying CE 1632	2 Islamic Culture 2 ICC 2202	18
Second Trimester	5 Architectural Design Studio 2: Medium Scale Public Buildings ARC 1005	3 Building Construction Studio 2: Components of Building Structure ARC 1102	2 3D Modeling ARC 1205	2 Local Architectural Heritage ARC 1304	2 Renaissance and Pre-modern Architecture ARC 1311	2 Environmental control Systems ARC 1317	2 Structure 1 CE 1450	18
Third Trimester	5 Architectural Design Studio 3: Vernacular Architecture ARC 1006	3 Building Construction Studio 3: Components of Building Structure ARC 1103	2 Creative Generative-Design ARC 1201	2 Buildings' Technical Installations ARC 1307	2 Principles of Urban Design ARC 1313	2 Elective Course 2 ARC 141#	2 The Holy Quran 2 QR 2102	18

3 Third Year

First Trimester	5 Architectural Design Studio 4: Conventional Structure Systems ARC 1007	3 Building Construction Studio 4: Technical Drawings ARC 1104	2 Principles of Urban Planning ARC 1312	2 Structure Systems in Architecture ARC 1316	4 Introduction to Urban Design Studio ARC 1109		2 Structure 2 CE 2452	18
Second Trimester	5 Architectural Design Studio 5: Long Spans ARC 1008	3 Building Construction Studio 5: Finishes ARC 1105	2 Sustainable Architecture ARC 1305	2 Elective Course 3 ARC 142#	4 Introduction to Urban Planning Studio ARC 1110		2 Structure 3 CE 2454	18
Third Trimester	8 Cooperative Training ARC 1500							8

مقررات مسار التصميم الحضري

4 Fourt Year

First Trimester	5 Urban Design Studio 1: Existing Areas Development ARC 3031	3 Urban Spatial Analysis Studio ARC 3131	2 Urban Information Systems ARC 3231	2 Urban Environmental Control ARC 3331	2 Urban Morphology ARC 3332	2 Housing ARC 3333	2 The Holy Quran 3 QR 3103	18
Second Trimester	5 Urban Design Studio 2: New Areas Development ARC 3032	3 Urban Design Details Studio ARC 3132	2 Urban Virtual and Augmented Reality ARC 3232	2 Advanced studies in Landscape Architecture ARC 3334	2 Introduction to Sustainable Urban Design ARC 3335	2 Islamic Culture 3 ICC 3203	2 Arabic Writing and Editing ARS 1500	18
Third Trimester	5 Urban Design Studio 3: Sustainability ARC 3033	3 Landscape Architecture Studio ARC 3133	2 Conservation of Heritage Sites ARC 3336	2 Streets Planning and Design ARC 3337	2 Humanizing the Cities ARC 3338	2 Elective Course 1: Urban Design ARC 343#	2 Elective 1 (General Course)	18

5 Fifth Year

First Trimester	5 Urban Design Studio 4: Urban Heritage Conservation ARC 3034	2 Graduation Project Research: Urban Design ARC 3339	2 Cities Centers ARC 3340	2 Urban Sociology ARC 3341	2 Principles of Urban Mobility ARC 3342	2 Public Transportation Planning and Management CE 3513	2 Islamic Culture 4 ICC 4204	17
Second Trimester	7 Graduation Project Studio 1: Integrated Urban Design ARC 4035	2 Crowd Management ARC 3344	2 Smart Urban Spaces ARC 3345	2 Urban Wayfinding ARC 3346	2 The Holy Quran 4 QR 4104	2 Elective 2 (General Course)		17
Third Trimester	7 Graduation Project Studio 2: Integrated Urban Design ARC 4036	2 Professional Practice of Urban Design ARC 4347	2 Future Urbanism ARC 4348	2 Elective Course 2: Urban Design ARC 444#	2 Elective 3 (General Course)			15

SCAN ME

Specialized Elective Courses

1	• Digital Architectural Photography	• Arabic Calligraphy and Ornamentation	• Graphic Design Principles
2	• Vocabulary of Islamic Architecture	• Contemporary Mosques Architecture	• Architecture of the Two Holy Mosques
3	• Introduction to Urban Spaces Analysis	• Sustainable Landscape Architecture	• Urban topics in Hajj and Umrah
1	• Temporary Urbanism	• Project Management for Planners	• Terminals Planning and Design
2	• Fundamentals of Real Estate Development	• Ecotourism Planning	• Selected Topics in Urban Design

University Elective Courses

- Specialized technology
- Health and Nutrition
- Entrepreneurship
- Work environment
- Hospitality
- Research and innovation

Credit Hours 255

In-person Online

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Design Studio 1: Existing Areas Development**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3031			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
	Introduction to Urban Design Studio			ARC 1109
Semester Level	Level: 10		Year: 4	
Responsible Person	….....			
Lecturer(s)	….....		…..	
	….....		…..	
	….....		…..	
	….....		…..	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Studios are the heart of the Urban Design track. Values, knowledge and skills acquired in previous courses are supplemented and enhanced, and applied creatively to both the investigation and development phases of design projects at an urban scale. This studio is concerned with the design development for a local urban project. Project is carefully chosen to explore complex local urban sites or groups of sites and to generate proposals for public and private building types, streets, spaces and transport infrastructure that are rigorously informed by design methodologies. Students will be expected to demonstrate appropriate problem recognition, investigative, analytical, interpretative, design and presentation skills and abilities on their projects.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Introduction to the project	10%
Data collection to understand existing problems	10%
Analyzing the collected data to reach the main objectives	10%
Developing alternatives - Part 1	10%
Developing alternatives - Part 2	10%
Evaluating the alternatives based on assessment criteria	10%
Development of various aspects of the selected alternative - Part 1	10%
Development of various aspects of the selected alternative - Part 2	10%
Development of various aspects of the selected alternative - Part 3	10%
Detailed urban design	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.

Krier, R. (1993). Urban Space. Rizzoli.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Spatial Analysis Studio**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3131			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	7.5	Total	13.5
Credit Points	5	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Analysis is a diagnosis of the city's component pieces, to see the relations between these pieces and to assess their condition. This course enables students to examine the form, appearance, and composition of a city-an evaluation of its assets and liabilities. It also enables students to see where the city needs reshaping. The studio deals with different scales-a neighborhood, the center, a suburban area, or a small group of buildings.

4. Intended Learning Outcomes (ILOs)

K1-a Explain processes, methods and fundamentals of designing the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S3-b Analyze data from a variety of sources.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Vocabulary of urban form	10%
Analysis of shape, size and density	10%
Analysis of Landform and nature	10%
Analysis of Pattern, Grain, Texture and Skyline	10%
Analysis of local climate	10%
Analysis of urban spaces and open spaces	10%
Analysis of routes, local streets and pedestrian areas	10%
Analysis of districts, landmarks, nodes and edges	10%
Analysis of activity structure	10%
Analysis of nonphysical aspects	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.
Lynch, K. (1979). The image of the city. MIT Pr.
Moughtin, C. (2016). Urban Design: Street and Square. Routledge.
Butler, K. (2012). Planning and Urban Design Standards. Wiley. ?

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-a			■																							■											
S1-d			■	■																					■												
S1-j				■																															■	■	
S3-b		■																																		■	■
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Information Systems**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3231			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	3.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is designed to introduce the basic principles of Geographic Information Systems (GIS). The focus is to develop an appreciation of how this technology may be applied to help the tasks of planners in the profession. The students will learn not only the theoretical background but also practical applications. The course content includes methods of data entry and editing, simple data analysis and visualization, and preparation of map layouts.

4. Intended Learning Outcomes (ILOs)

K1-d Demonstrate an understanding of various ways of representing the built environment.

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
GIS software interface	10%
Geospatial data, Georeferenced and Geo Databases	10%
Data entry in GIS - Vector Data	10%
Data entry in GIS - Raster Data	10%
Editing with Aerial photo	10%
Editing geographic data - Part 1	10%
Editing geographic data - Part 2	10%
Visualization data and Symbology - Part 1	10%
Visualization data and Symbology - Part 2	10%
Preparation of map layouts	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Corbin, T. (2020). Learning ArcGIS Pro 2 - Second Edition. Packt Publishing.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-d																																			■		
K1-l																																				■	
S1-j				■																															■	■	
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Environmental Control**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3331			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

An essential part of urban design is the need to provide comfortable conditions within public spaces - comfort being a prerequisite of successful people places. This course discusses Levels of sunlight, shade, temperature, humidity, precipitation, wind and noise that have an impact upon our experience and use of urban environments.

4. Intended Learning Outcomes (ILOs)

K1-a Explain processes, methods and fundamentals of designing the built environment.

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

S1-b Solve complicated problems associated with the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
The microclimate	10%
Urban design in different climates: Hot, dry and hot, humid regions	10%
Thermal comfort in outdoor environments	10%
Solar radiation: Designing for sun and shade - Part 1	10%
Solar radiation: Designing for sun and shade - Part 2	10%
Humidity and precipitation	10%
Air movement - The wind environment	10%
Natural lighting	10%
Noise level	10%
Bioclimatic design at the site planning scale	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.
Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.
Lau, K., Tan, Z., & Ren, C. (2021). Outdoor thermal comfort in urban environment. Spriger.
ASCE. (2004). Outdoor human comfort and its assessment.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-a			■																							■											
K1-i																■	■																					
S1-b		■																																			
S1-d			■	■																					■												
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Morphology**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3332			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course presents the main elements of urban form - streets, urban blocks, plots and buildings - structuring cities and the fundamental processes of transformation shaping these elements. It describes how different schools of thought have been dealing with this object since the emergence of Urban Morphology, as the science of urban form, in the turning to the twentieth century. Finally, it identifies what are the most important contributions that Urban Morphology has to offer to contemporary cities and societies.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
The concept of urban tissue and the natural context	10%
The elements of urban form: the streets, the plots and the buildings systems	10%
Examples of urban morphology throughout history	10%
Examples of urban morphology in contemporary cities	10%
Different morphological approaches - Part 1	10%
Different morphological approaches - Part 2	10%
Comparative studies of urban form	10%
Urban morphology and society: Public health and social justice	10%
Urban morphology and economy	10%
Urban morphology and environment: Climate change and energy	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Oliveira, V. (2016). Urban morphology. Springer.
Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.
Kropf, K. (2018). The Handbook of Urban Morphology. John Wiley & Sons, Incorporated.
Conzen, M., & Conzen, M. (2005). Thinking about urban form. Peter Lang.
Oliveira, V. (2018). Teaching Urban Morphology. Springer.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-h																■																						
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
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Handbook of

Module Specifications P44

1. General Information

Module Name	**Housing**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3333			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The course deals with the definitions, concepts and issues related to housing such as: shelter, housing, population, area density, etc. Furthermore, it discusses types of housing, factors that affect the design of the housing, criteria and design considerations, as well as its problems and solutions. At the end, the course focuses on planning of neighborhood residential areas.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Definitions of housing	10%
Types of housing	10%
Housing and sustainable living	10%
Housing requirements: Social and economic requirements	10%
Housing requirements: environmental and urban requirements	10%
Criteria and design considerations	10%
Housing site Analysis	10%
Housing problems and solutions	10%
Concept of the Neighborhood	10%
Neighborhood services and its road network	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Clark. W. (2021). Advanced Introduction to Housing Studies. Edward Elgar Publishing.
Firley, E. and Deupi, V. (2022). The Urban Housing Handbook. Wiley.
Towers, G. (2015). An introduction to urban housing design. Routledge.
Butler, K. (2012). Planning and Urban Design Standards. Wiley.
Kliment, S., & Chandler, R. (2010). Building type basics for housing. John Wiley & Sons.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-h																■																						
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Design Studio 2: New Areas Development**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3032			
Prerequisite Course(s)	Urban Design Studio 1: Existing Areas Development			ARC 3031
	Urban Morphology			ARC 3332
Semester Level	Level: 11		Year: 4	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio focuses on planning and design of a residential neighborhood in the city of Mecca or any city in the Kingdom. Students are asked to design the neighborhood regarding the planning requirements and the urban regulations and standards in terms of housing quality, building heights and densities, etc. Furthermore, the detailed urban design of the neighboring center is to be presented. The location of the project is determined in coordination with the relevant authorities, if any, or by the coordinator of the studio.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the project and a general review about neighborhood	10%
Data collection to understand problems	10%
Analyzing the collected data to reach the main objectives	10%
Developing alternatives - Part 1	10%
Developing alternatives - Part 2	10%
Evaluating the alternatives based on assessment criteria	10%
Development of various aspects of the selected alternative - Part 1	10%
Development of various aspects of the selected alternative - Part 2	10%
Development of various aspects of the selected alternative - Part 3	10%
Detailed urban design of the neighboring center	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.

Krier, R. (1993). Urban Space. Rizzoli.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Urban Design Details Studio**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3132			
Prerequisite Course(s)	Urban Design Studio 1: Existing Areas Development			ARC 3031
Semester Level	Level:	11	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	7.5	Total	13.5
Credit Points	5	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio focuses on urban design details that students can apply to their urban projects. It includes various urban details like traffic calming, acoustic and outdoor lighting details, etc.

4. Intended Learning Outcomes (ILOs)

K1-a Explain processes, methods and fundamentals of designing the built environment.

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-j Demonstrate adequate understanding of the means to achieve an environmentally sustainable built environment.

S1-k Apply various means to achieve sustainable built environment.

S4-c Perform drawings efficiently and accurately.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction	10%
Traffic calming details	10%
Parking and circulation dimensions	10%
Urban green infrastructure	10%
Urban waterways	10%
Graphic communication, wayfinding and interpretive planning	10%
Better air quality at street level	10%
Acoustic considerations for urban design	10%
Urban outdoor lighting	10%
Universal design details	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.
Burton, E., & Mitchell, L. (2016). Inclusive urban design: Streets for life. Routledge.
Cheshmehzangi, A. (2022). Green Infrastructure in Chinese Cities. Springer.
Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.
Moughtin, C. (2016). Urban Design: Street and Square. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-a			■																							■											
K1-b									■		■				■																							
K1-j																■								■													
S1-k																			■																		
S4-c																																			■		
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Virtual and Augmented Reality**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3232			
Prerequisite Course(s)	Urban Information Systems			ARC 3231
Semester Level	Level:	11	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	2	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course offers a scientifically sound and at the same time practical introduction to Virtual and Augmented Reality (VR/AR). Students will gain the theoretical foundation needed to design, implement or enhance VR/AR systems, evaluate and improve user interfaces and applications using VR/AR methods, assess and enrich user experiences, and develop a deeper understanding of how to apply VR/AR techniques.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

V2-c Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility.

5. Contents

Content	Weight
Introduction to Virtual and Augmented Reality	10%
Perceptual aspects of VR/AR	10%
Virtual worlds	10%
VR/AR Input devices and Tracking	10%
VR/AR output devices	10%
Interactions in virtual worlds	10%
Real-time aspects of VR systems	10%
Augmented Reality	10%
VR/AR Case studies - Part 1	10%
VR/AR Case studies - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Do?rner, R., Broll, W., Grimm, P., & Jung, B. (2022). Virtual and augmented reality (VR/AR). Springer.
Pangilinan, E., et al. (2019). Creating Augmented and Virtual Realities. O'Reilly Media.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																				■	
S1-j				■																															■	■	
V2-b																																					
V2-c																																			■		

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Advanced studies in Landscape Architecture**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3334			
Prerequisite Course(s)	Urban Design Studio 1: Existing Areas Development			ARC 3031
Semester Level	Level:	11	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is considered as a continuation of "Introduction to Landscape Architecture" course and is an introduction to "Landscape Studio". This course includes various topics such as site analysis and assessment, site utilities, and special landscape conditions.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

K2-b Demonstrate an understanding of various types of infrastructure systems.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Site analysis and assessment	10%
Pedestrian circulation	10%
Bicycle circulation	10%
Vehicular circulation	10%
Site grading and stormwater management	10%
Site utilities: Water supply	10%
Site utilities: Sewage disposal	10%
Site utilities: Recreational water bodies and Irrigation	10%
Special conditions: Roof and deck landscapes	10%
Special conditions: Sound control	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Dines, N., & Brown, K. (2002). Time-saver standards for landscape architecture. McGraw-Hill.
Allen, E., Ryan, T., & Rand, P. (2013). Detailing for landscape architects. Wiley.
Shehata, A. (2021). Design of Outdoor Spaces. Universal Publishing Ltd.
Littlewood, M. (2012). Landscape Detailing Volume 1. Taylor and Francis.
Littlewood, M. (2012). Landscape Detailing Volume 2. Taylor and Francis.
Littlewood, M. (2012). Landscape Detailing Volume 3. Taylor and Francis.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																																					
K1-h																■																						
S1-d			■	■																					■												
V2-a									■																												
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Introduction to Sustainable Urban Design**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3335			
Prerequisite Course(s)	Urban Design Studio 1: Existing Areas Development			ARC 3031
Semester Level	Level:	11	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Sustainable urban design has become more widespread in recent years. This course was engineered to inspire and help create better, more sustainable, well-connected neighborhoods. It looks beyond the scale of buildings to consider entire communities.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.
K1-i Demonstrate an understanding of the mutual integration between human and the environment.
K1-j Demonstrate adequate understanding of the means to achieve an environmentally sustainable built environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S2-a Analyze the Islamic values and its impact on the formation of the human and built environment at multiple scales.
V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Introduction to sustainable urban design	10%
Smart location and linkage	10%
Sustainable neighborhood pattern and design: Walkable streets and compact development	10%
Connected and open community	10%
Housing types and affordability	10%
Transit facilities and transportation demand management	10%
Access to civic, public spaces and recreation facilities	10%
Visitability and universal design	10%
Green infrastructure and buildings	10%
Case study analysis	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Friedman, A. (2022). Designing Innovative Sustainable Neighborhoods. Routledge.
Friedman, A. (2020). Fundamentals of sustainable urban design. Springer.
Friedman, A. (2014). Fundamentals of sustainable neighbourhoods. Springer.
U.S. Green Building Council. (2013). LEED Reference Guide for Green Neighborhood Development.
Cohen, S., & Dong, G. (2021). The sustainable city. Columbia University Press.
Alvarez-Risco, A. (2021). Building Sustainable Cities. SPRINGER.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																																					
K1-i																■	■																					
K1-j																■								■														
S1-d			■	■																					■												
S2-a							■																														
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Arabic Writing and Editing**			
Module Level	Bachelor of Architecture and Planning (Architecture)			
Code	ARS 1500			
Prerequisite Course(s)	None			
Semester Level	Level:	11	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	1	Total	3
Credit Points	1	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

هذا المقرر أحد متطلبات جامعة أم القرى يدرسه جميع طلبة الجامعة وهو أحد مقررات الهوية العربية للجامعة ولطلبتها التي تحرص الجامعة على إبرازها ضمن رؤيتها ونقاط تميزها بين الجامعات.

4. Intended Learning Outcomes (ILOs)

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
0	10%
0	10%
0	10%
0	10%
0	10%
0	10%
0	10%
0	10%
0	10%
0	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
S5-a																																					
V1-a																																					
V2-b																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Urban Design Studio 3: Sustainability**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3033			
Prerequisite Course(s)	Urban Design Studio 2: New Areas Development			ARC 3032
	Introduction to Sustainable Urban Design			ARC 3335
Semester Level	Level: 12		Year: 4	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Sustainable urban design has become more widespread in recent years. This studio was engineered to inspire and help create better, more sustainable, well-connected neighborhoods. Students are asked to design the neighborhood regarding the planning requirements and the urban regulations and standards and strategies of sustainability. The location of the project shall be determined in coordination with the relevant authorities, if any, or by the coordinator of the studio.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-j Demonstrate adequate understanding of the means to achieve an environmentally sustainable built environment.

S1-b Solve complicated problems associated with the built environment.

S1-k Apply various means to achieve sustainable built environment.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Introduction to the project and a general review about urban sustainability	10%
Data collection to understand problems	10%
Analyzing the collected data to reach the main objectives	10%
Developing alternatives - Part 1	10%
Developing alternatives - Part 2	10%
Evaluating the alternatives based on assessment criteria	10%
Development of various aspects of the selected alternative - Part 1	10%
Development of various aspects of the selected alternative - Part 2	10%
Development of various aspects of the selected alternative - Part 3	10%
Detailed urban design for one sustainability strategy	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Friedman, A. (2022). Designing Innovative Sustainable Neighborhoods. Routledge.
Friedman, A. (2020). Fundamentals of sustainable urban design. Springer.
Friedman, A. (2014). Fundamentals of sustainable neighbourhoods. Springer.
U.S. Green Building Council. (2013). LEED Reference Guide for Green Neighborhood Development.
Cohen, S., & Dong, G. (2021). The sustainable city. Columbia University Press.
Alvarez, A. (2021). Building sustainable cities: social, economic and environmental factors. SPRINGER.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-j																■								■														
S1-b		■																																			
S1-k																			■																		
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Landscape Architecture Studio**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3133			
Prerequisite Course(s)	Urban Design Studio 2: New Areas Development			ARC 3032
	Advanced studies in Landscape Architecture			ARC 3334
Semester Level	Level: 12		Year: 4	
Responsible Person	….....			
Lecturer(s)	….....		…..	
	….....		…..	
	….....		…..	
	….....		…..	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	6	Total	12
Credit Points	4	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course aims at developing a landscape project at an urban scale based on a real subject chosen by the coordinator. The students should apply all skills and knowledge to create the convenient and creative projects. Simultaneously, the studio previews the execution of hard and soft-scape elements along with different design stages. Furtherer, it introduces an introduction to writing the landscape specifications.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the studio	10%
Existing condition analysis and demolition plan (if any)	10%
Layout and materials plan	10%
Layout and materials plan	10%
Grading and drainage plan	10%
Road profiles and sections	10%
Plan enlargements	10%
Site sections	10%
Landscape details	10%
Written landscape specifications	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Dines, N., & Brown, K. (2002). Time-saver standards for landscape architecture. McGraw-Hill.
Allen, E., Ryan, T., & Rand, P. (2013). Detailing for landscape architects. Wiley.
Shehata, A. (2021). Design of Outdoor Spaces. Universal Publishing Ltd.
Littlewood, M. (2012). Landscape Detailing Volume 1. Taylor and Francis.
Littlewood, M. (2012). Landscape Detailing Volume 2. Taylor and Francis.
Littlewood, M. (2012). Landscape Detailing Volume 3. Taylor and Francis.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Conservation of Heritage Sites**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3336			
Prerequisite Course(s)	Urban Design Studio 2: New Areas Development			ARC 3032
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The course emphasizes on the importance of urban heritage. It introduces different criteria for identification, classification, documentation and levels of conservation. Students will identify urban and environmental threats: spaces, negligence and lack of maintenance and deterioration significances. They will also recognize the principles and degrees of conservation and techniques of restoration for urban heritage. This course is considered as an introduction to "Urban Design Studio 4: Heritage Urban Conservation".

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-g Describe the conservation methods of the built heritage.

S3-a Independently seek information and use it appropriately.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Introduction to urban heritage conservation	10%
Definition and importance of conservation of urban heritage	10%
Kinds, patterns and levels of urban heritage	10%
Principals and issues of protecting urban heritage	10%
Criteria and methods of preliminary identifying urban heritage	10%
Methodology of analyzing and developing urban heritage	10%
Approaches and policies of conserving urban heritage	10%
International experiences of protecting urban heritage	10%
Regional experiences of protecting urban heritage	10%
National experiences of protecting urban heritage in Saudi Arabia	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Kalman, H., & Letourneau, M. (2014). Heritage planning: Principles and Process. Routledge.
Ministry of Municipalities and Village. (1426 H). Guide for the Conservation of Urban Heritage.
Bagader, M. (2019). The Evolution of Built Heritage Conservation Policies in KSA. LAP LAMBERT.
Pickard, R. (2012). Policy and law in heritage conservation. Taylor & Francis.
Rodwell, D. (2009). Conservation and Sustainability in Historic Cities. Wiley.
Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-g							■																														
S3-a																																					
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Streets Planning and Design**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3337			
Prerequisite Course(s)	Urban Design Studio 2: New Areas Development			ARC 3032
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces the design concepts, properties and design criteria of streets. It covers hierarchies of the urban infrastructure (water supply, sanitation, drainage, energy, solid wastes, telecommunication, roads, and gas supply), and their relation with technologies of connection, piping, tunnelling, transport systems (metro, trains, etc.), high tension power lines, location and siting, spatial requirements, and standards. It also discuss different aspects of roads, streets, squares and squares with Introducing the different types of them and their classification methods, functions, roles and their urban qualities.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

S1-b Solve complicated problems associated with the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Street design concepts	10%
Street hierarchies	10%
Urban infrastructure	10%
Infrastructure technologies	10%
Urban Open Spaces	10%
Urban qulities	10%
Urban Furneture	10%
Bus stops and terminals	10%
Material properties	10%
Signage and environmental quality	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Leedy, P., & Ormrod, J. (2018). Practical research. Pearson.

Moughtin, C. (2007). Urban design: street and square. Routledge.

Rubenstein, H. (1992). Pedestrian malls, streetscapes, and urban spaces. J. Wiley.

Adriana, P. (2016). Visual Pollution: Advertising, Signage and Environmental Quality. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
S1-b		■																																			
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Humanizing the Cities**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3338			
Prerequisite Course(s)	Urban Design Studio 2: New Areas Development			ARC 3032
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The heavy dependency on private cars has shaped the design of cities. This course focuses on humanizing cities in favor of greener and humanized urban design that would improve the quality of life and reduce the global threat of climate change. The course discusses a wide range of topics including design of street scape and plazas, mixed land use, community participation, etc.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Quality of life in urban environments	10%
The human dimension in urban design process	10%
Walkability and car-free city development	10%
Humanizing cities: Street scape	10%
Humanizing cities: Plazas	10%
Humanizing cities: Mixed land use	10%
Humanizing cities: Tactical urbanism	10%
Humanizing cities: Human scale	10%
Humanizing cities: Community participation	10%
Case study analysis	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Doheim, R., Farag, A., & Kamel, E. (2020). Humanizing cities through car-free city development and transformation. Engineering Science.

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																																					
K1-h																■																						
S3-a																																					
V2-a										■																												

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Urban Design Studio 4: Urban Heritage Conservation**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3034			
Prerequisite Course(s)	Urban Design Studio 3: Sustainability			ARC 3033
	Conservation of Heritage Sites			ARC 3336
Semester Level	Level: 13		Year: 5	
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	14	Total	24
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The studio emphasizes on the importance of urban heritage in Saudi Arabia. Students are asked to deal with an urban heritage site regarding the principles and process of conservation, and the built heritage conservation policies in Saudi Arabia. The location of the project shall be determined in coordination with the relevant authorities, if any, or by the coordinator of the studio.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-g Describe the conservation methods of the built heritage.

K3-b Identify the relevant laws, rules and legislations that regulate the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-l Apply various conservation methods to preserve the built heritage.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Review of urban heritage conservation	10%
Data collection to understand problems	10%
Analyzing the collected data to reach the main objectives	10%
Developing alternatives - Part 1	10%
Developing alternatives - Part 2	10%
Evaluating the alternatives based on assessment criteria	10%
Development of various aspects of the selected alternative - Part 1	10%
Development of various aspects of the selected alternative - Part 2	10%
Development of various aspects of the selected alternative - Part 3	10%
Development of various aspects of the selected alternative - Part 4	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Kalman, H., & Le?tourneau, M. (2014). Heritage planning: Principles and Process. Routledge.
Ministry of Municipalities and Village. (1426 H). Guide for the Conservation of Urban Heritage.
Bagader, M. (2019). The Evolution of Built Heritage Conservation Policies in KSA. LAP LAMBERT.
Pickard, R. (2012). Policy and law in heritage conservation. Taylor & Francis.
Rodwell, D. (2009). Conservation and Sustainability in Historic Cities. Wiley.
Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-g							■																														
K3-b												■																									
S1-b		■																																		
S1-l							■																														
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Graduation Project Research: Urban Design**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3339			
Prerequisite Course(s)	Urban Design Studio 3: Sustainability			ARC 3033
Semester Level	Level:	13	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	10	Total	12
Credit Points	4	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is an introduction to "Graduation Project Studio 1: Integrated Urban Design". It focuses on choosing a graduation project title that matches the student's approach such as landscape planning or designing, urban design, or in the field of preservation or upgrading. Furthermore, student will learn how to prepare an actual project methodology through studying and analysing past experiences and case studies to elicit the learned lessons from these experiences. Moreover, this course acquaints the students with scientific report writing skills as they are required to submit a well-written report on the cited studies.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K3-b Identify the relevant laws, rules and legislations that regulate the built environment.

S3-a Independently seek information and use it appropriately.

S3-b Analyze data from a variety of sources.

S3-c Formulate results of different experiments.

V2-e Complete tasks under pressure and within the expected time frame.

5. Contents

Content	Weight
Scientific research objectives and its scope	10%
Research problem, hypothesis and methodology	10%
Representation techniques of urban design	10%
Selecting the graduation project	10%
Analyses of previous similar projects - Part 1	10%
Analyses of previous similar projects - Part 2	10%
Analyses of previous similar projects - Part 3	10%
Specifying and selecting the appropriate site	10%
Identify the relevant laws, rules and legislations	10%
Defining statistics and vision for the selected graduation project	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	0	Training	0
	Practical	0	Research Pro	20	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Report stages • Oral Exam • Final Report Submission			
Examination Requirements	Classroom			

8. Reading list

Deetjen, T. (2020). Published: a Gide. Productive Academic.

Schluter, W. (1926). How to do research work. Prentice-Hall, Inc.

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K3-b												■																										
S3-a																																					
S3-b		■																																		■	■
S3-c		■																																			
V2-e																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Cities Centers**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3340			
Prerequisite Course(s)	Urban Design Studio 3: Sustainability			ARC 3033
Semester Level	Level:	13	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course deals with the basic theories related to the planning and development of city centers. It clarifies the main problems that urban centers suffer from globally and in Saudi cities in particular, and the strategies for solving these problems. Furthermore, this course discusses quantitative and qualitative survey methods, as well as training on methods of redevelopment and planning of the city center.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction	10%
Main problems of city centers	10%
Main elements of city centers	10%
Patterns of city centers	10%
Theoretical and conceptual approaches used in planning city centers - Part 1	10%
Theoretical and conceptual approaches used in planning city centers - Part 2	10%
Toward safer city centers	10%
Main problems of city centers in Saudi Arabia	10%
Strategies for solving problems of city centers	10%
Case study analysis	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Ruimte, M. (2012). Environmental Problems of the City Centres. Springer.
Helms, G., Boyle, M., Mitchell, D., & Pinder, D. (2016). Towards Safe City Centres?. Taylor & Francis.
Alexander, I. (1975). The City Centre: Patterns and Problems. Intl Specialized Book Services.
Oc, T. (1997). Safer city centres. P. Chapman Publ.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Sociology**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3341			
Prerequisite Course(s)	Urban Design Studio 3: Sustainability			ARC 3033
Semester Level	Level:	13	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is an introduction to urban sociology. Organized around an integrated paradigm, the sociospatial perspective, this course illustrates the role played by social factors such as gender, lifestyle, economics, and culture on the development of metropolitan areas. With its unique perspective, concise history of urban life, clear summary of urban social theory, and attention to the impact of culture on urban development, this course gives students a cohesive conceptual framework for understanding cities and urban life.

4. Intended Learning Outcomes (ILOs)

K1-h Explain the impact of different aspects on the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
The origins of urban life	10%
Ancient urbanization and classical cities	10%
Urban Sociology: Definition and theoretical paradigms	10%
Contemporary Urban Sociology	10%
People and lifestyle in the metropolises: Urban and suburban culture	10%
Neighborhoods and communities	10%
Metropolitan problems	10%
Urbanization in the developing world	10%
Metropolitan planning and environmental issues	10%
Future of Urban Sociology	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Gottdiener, M., Hutchison, R., & Ryan, M. (2019). The new urban sociology. Westview Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-h																■																						
K1-k				■				■																														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Principles of Urban Mobility**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3342			
Prerequisite Course(s)	Urban Design Studio 3: Sustainability			ARC 3033
Semester Level	Level:	13	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The course discusses the complex relationship between transportation, land use and urban form, and the varied instruments available to planners seeking to influence this relationship. It discusses how different urban accessibility pathways impact directly on other measures of human development. It also presents the enabling conditions for increasing accessibility and low-carbon mobility in cities and what makes neighborhoods livable. It addresses the effectiveness of applying policies of green transportation in urban areas.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to urban mobility	10%
Urban mobility challenges	10%
The state of urban passenger transport	10%
Urban accessibility pathways	10%
Urban goods transport	10%
Mobility and urban form	10%
Equitable access to urban mobility	10%
Urban mobility and the environment	10%
Toward sustainable urban mobility	10%
Introduction to neighborhood traffic safety	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

UN-habitat. (2013). Planning and Design for Sustainable Urban Mobility. Routledge.
Whitelegg, J. (2016). Mobility. Createspace independent Publishing platform.
Coxon, S., Napper, R., & Richardson, M. (2018). Urban mobility design. Elsevier.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																																					
K1-k																																					
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Public Transportation Planning and Management**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	CE 3513			
Prerequisite Course(s)	Urban Design Studio 3: Sustainability			ARC 3033
Semester Level	Level:	13	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces principles of public transport planning and management. It focuses on public transport theories and systems. It discuss typologies of public transportation system such as, cars, street cars, bus, bus rapid transit, light rapid transit, railway rapid transit and transit oriented development. The course cover route modeling and assignment, trip timing, distance and scheduling, cost subsidies, public involvement, and sustainable practices.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Principles of Public Transport	10%
Public transport theories and systems	10%
Typologies of public transportation -Part 1	10%
Typologies of public transportation - Part 2	10%
Modeling and assignment	10%
Trip timing	10%
Distance and scheduling	10%
Cost subsidies	10%
Public involvement	10%
Sustainable practices	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Verma A, Ramanayya TV. Public transport planning and management in developing countries. Boca Raton: CRC Press; 2014 Dec 17.

Gray GE, Hoel LA. Public transportation: planning, operations, and management.

Black J. Urban transport planning: Theory and practice. Routledge; 2018 May 30.

Abdallah T. Sustainable Mass Transit: Challenges and Opportunities in Urban Public Transportation.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																																					
K1-k				■				■																													
S3-a																																					
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Graduation Project Studio 1: Integrated Urban Design**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 4035			
Prerequisite Course(s)	Urban Design Studio 4: Urban Heritage Conservation			ARC 3034
	Graduation Project Research: Urban Design			ARC 3339
Semester Level	Level: 14		Year: 5	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	14	Self-study	20.5	Total	34.5
Credit Points	12	CPs.				
Credit Hours	7	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The Graduation Project studio focusses on "real world" strategic urban issues. Students will be working to develop abilities and skills (investigation, analysis and interpretation, design development and presentation) that enable them to prepare strategies, frameworks, concepts and master plans in a professional and visionary manner. Familiarity with economic, social and environmental factors, analytic and communication techniques will be assumed from previous courses. This studio is considered as the first phase of the graduation project. This phase concentrates on the data collection and analysis stages of the developmental process. Throughout the preparation of this phase, student will grasp the ideology of analyzing the final detailed program, setting alternatives, and taking urban design decisions.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the studio	10%
Define feasible urban design problems	10%
Collect information to understand the selected problems - Part 1	10%
Collect information to understand the selected problems - Part 2	10%
Analyzing the collected data to reach the main objectives - Part 1	10%
Analyzing the collected data to reach the main objectives - Part 2	10%
Developing three scenarios or concepts - Part 1	10%
Developing three scenarios or concepts - Part 2	10%
Developing three scenarios or concepts - Part 3	10%
Evaluating the concepts based on assessment criteria	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	140	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.
Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.
Friedman, A. (2022). Designing Innovative Sustainable Neighborhoods. Routledge.
Friedman, A. (2020). Fundamentals of sustainable urban design. Springer.
Friedman, A. (2014). Fundamentals of sustainable neighbourhoods. Springer.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Crowd Management**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3344			
Prerequisite Course(s)	Urban Design Studio 4: Urban Heritage Conservation			ARC 3034
Semester Level	Level:	14	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	5.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Crowd management is the organized and substantiated planning and the direction given to the orderly progression of events where large groups of people gather together such as in Hajj. Yearly there is an influx of over three million Muslims to Makkah to perform Hajj. As this large group of pilgrims move between the different religious sites safety and security becomes an issue of main concern. This course pleases emphasis on definitions, concepts and types of crowds. Moreover, it discusses crowd management strategies, international examples, and crowd management in the event of Hajj.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S1-b Solve complicated problems associated with the built environment.

S3-a Independently seek information and use it appropriately.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Introduction to crowd science and its importance	10%
Crowds: Definitions, concepts and types	10%
Crowd disasters: Causes and triggers	10%
The stages of crowd formation	10%
Space capacity and crowds	10%
Perceived crowding	10%
Crowd management strategies - Part 1	10%
Crowd management strategies - Part 2	10%
International examples analysis	10%
Crowd management in the event of Hajj	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Still, G. (2019). Introduction to Crowd Science. CRC Press

Kemp, C. & Smith, P. (2010). Case Studies in Crowd Management. Entertainment Technology Press.

Marx, B. (2018). Crowd Management Made Easy. Independent Publishing Platform

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S1-b		■																																			
S3-a																																					
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Smart Urban Spaces**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3345			
Prerequisite Course(s)	Urban Design Studio 4: Urban Heritage Conservation			ARC 3034
Semester Level	Level:	14	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Smart cities as a concept have been widely used in the past decades in different fields and areas related to the city. One of these areas is the urban spaces. This course focuses on urban spaces concepts, technologies applied, benefits and challenges. It discusses how smart and innovative technologies can make urban spaces better, and how these spaces can improve people lives accordingly.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K2-b Demonstrate an understanding of various types of infrastructure systems.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Introduction to urban spaces	10%
Smart urban public space concepts	10%
The effect of smartness on urban public spaces	10%
Socio economic values of smart urban space	10%
Application tools to make urban spaces smarter	10%
Smart urban landscape	10%
Smart solutions for sustainable urban space	10%
Challenges facing smart urban spaces	10%
Case studies of smart urban spaces part - 1	10%
Case studies of smart urban spaces part - 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Aurigi, A., & Odendaal, N. (2021). Shaping Smart for Better Cities. Brian Romer.
Corchado, J., & Trabelsi, S. (2022). Sustainable smart cities and territories. Springer.
Peris-Ortiz, M., Bennett, D., & Pe?rez-Bustamante Ya?bar, D. (2017). Sustainable Smart Cities. Springer.
Dameri, R., & Rosenthal-Sabroux, C. (2014). Smart city. Springer.
Carta, S. (2022). Machine Learning and the City. Wiley-Blackwell

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K2-b																						■	■														
S3-a																																					
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Urban Wayfinding**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3346			
Prerequisite Course(s)	Urban Design Studio 4: Urban Heritage Conservation			ARC 3034
Semester Level	Level:	14	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Some cities are difficult for anyone to navigate and reach a particular destination. Effective wayfinding is important for people to make their way through outdoor environment, as it improves efficiency, accessibility, and safety. This course focuses on behaviors of wayfinders and urban design fundamentals for good wayfinding. It contains definitions of wayfinding, movement perceptual system and cognitive map. Furthermore, it discusses wayfinding elements and information needed for wayfinding process.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Definitions of wayfinding	10%
Movement perceptual system	10%
Cognitive map	10%
Wayfinding elements (Design, operational and behavioral systems)	10%
Auditory information needed for wayfinding process	10%
Optical information needed for wayfinding process	10%
Urban information needed for wayfinding process	10%
Urban design foundations for good wayfinding	10%
Wayfinders	10%
Case study analysis	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Passini, R. (1992). Wayfinding in architecture. Van Nostrand Reinhold.
Gibson, D., & Pullman, C. (2009). The wayfinding handbook. Princeton Architectural Press.
Hero, C. (2021). Study Guide for Kevin Lynch's The Image of the City. Course hero.
Olson, D., & Bialystok, E. (2014). Spatial Cognition. Taylor and Francis.
He, L. (2012). Wayfinding Designs Worldwide. LST Publishing House.
Calori, C. (2007). Signage and wayfinding design. John Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-k				■				■																													
S1-b		■																																			
S1-d			■	■																					■												
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Graduation Project Studio 2: Integrated Urban Design**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 4036			
Prerequisite Course(s)	Graduation Project Studio 1: Integrated Urban Design			ARC 4035
Semester Level	Level:	15	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	14	Self-study	25	Total	39
Credit Points	13	CPs.				
Credit Hours	7	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is considered as the second phase of the graduation project. Student will continue on what was achieved on the prior course. In this phase, the student develops the urban design concept selected in the previous phase of the project. The student is encouraged to use innovative management tools such as place-marketing, events-marketing and websites deployment targeting potential developers.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.
S1-b Solve complicated problems associated with the built environment.
S1-c Create innovative concepts and forms for the built environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S1-j Effectively employ digital skills in different stages of designing the built environment.
V2-e Complete tasks under pressure and within the expected time frame.

5. Contents

Content	Weight
Development of various aspects of the selected alternative - Part 1	10%
Development of various aspects of the selected alternative - Part 2	10%
Development of various aspects of the selected alternative - Part 3	10%
Development of various aspects of the selected alternative - Part 4	10%
Development of various aspects of the selected alternative - Part 5	10%
Development of various aspects of the selected alternative - Part 6	10%
Preparing an implementation framework- Part 1	10%
Preparing an implementation framework- Part 2	10%
Defining appropriate policies, actions and legal instruments- Part 1	10%
Defining appropriate policies, actions and legal instruments- Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	140	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.
Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.
Friedman, A. (2022). Designing Innovative Sustainable Neighborhoods. Routledge.
Friedman, A. (2020). Fundamentals of sustainable urban design. Springer.
Friedman, A. (2014). Fundamentals of sustainable neighbourhoods. Springer.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V2-e																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Professional Practice of Urban Design**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 4347			
Prerequisite Course(s)	Graduation Project Studio 1: Integrated Urban Design			ARC 4035
Semester Level	Level:	15	Year:	5
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is an introduction to principles of professional practice, focusing on the historical, ethical, and legal framework of the practice of urban design profession. The course includes a review to the responsibility of urban designer in the development of communities and environments. It emphasizes addressing competency requirements matching professional practice expectation in the field of urban design.

4. Intended Learning Outcomes (ILOs)

K3-a Identify the professional ethics and responsibilities related to the built environment.

K3-b Identify the relevant laws, rules and legislations that regulate the built environment.

S1-g Apply the knowledge of professional and regulatory requirements.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
An introduction to the state of urban design professional practice	10%
The professional role of the urban designer	10%
Competencies of an urban designer	10%
Ethics in urban design profession	10%
Regulations and rules that govern the professional practice	10%
Practicing the urban design profession in Saudi Arabia	10%
Principles for administering urban design or consulting offices	10%
Successful management of an urban design office	10%
Portfolio preparation	10%
Writing of curriculum vitae (CV)	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Saudi building code National committee (2018). The Saudi building code general 201.

Bayer, M. & Frank, N. (2010). Becoming an Urban Planner. Wiley.

Unwin, R. (2020). Town design in practice. [publisher not identified].

Piven, P. (2008). Architect's essentials of starting, assessing, and transitioning a design firm. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K3-a													■																	■		■						
K3-b												■																										
S1-g				■																								■										
V2-b																																						

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Future Urbanism**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 4348			
Prerequisite Course(s)	Graduation Project Studio 1: Integrated Urban Design			ARC 4035
Semester Level	Level:	15	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Today's cities are overshadowed by multiple threats that endanger our metropolitan way of life, so the concepts of the future cities will be changed accordingly. The fundamental tool we use to make sense of these uncertain city futures is the imagination. This course explores a range of imagined cities-submerged, floating, flying, vertical, underground, ruined, and salvaged-Future Cities. Bringing together architecture, fiction, film, and visual art, this course reconnects the imaginary city with the real, proposing a future for humanity.

4. Intended Learning Outcomes (ILOs)

K1-h Explain the impact of different aspects on the built environment.

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

S3-a Independently seek information and use it appropriately.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Introduction: Real and imagined future cities	10%
Visual history of future cities	10%
Climate change fictions	10%
Drowned city	10%
Floating city	10%
Airborne city	10%
Vertical city	10%
Domed city	10%
Underground city	10%
Salvage and waste cities	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Dobraszczyk, P. (2019). Future Cities: Architecture and the imagination. Reaktion Books.

Dunn, N., & Pollastri, S. (2014). A visual history of the future. Foresight.

Banham, R., & Gannon, T. (2020). Megastructure: Urban Futures of the Recent Past. The Monacelli.

Kumar, A. & Meshram, D. (2022). Future of Cities. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-h																■																					
K1-i																■	■																					
S3-a																																					
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

Specifications of

Urban Design

Elective Courses

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Temporary Urbanism**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3431			
Prerequisite Course(s)	Urban Design Studio 2: New Areas Development			ARC 3032
Semester Level	Level:	12	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The increased frequency of short-term events, in particular the temporary construction and use of space, has become known as temporary and tactical urbanism. This course presents a theoretical and critical analysis of this global trend. The importance of this course is due to the fact that Makkah al-Mukarramah is characterized by this type of urbanization in Mina, Muzdalefah and Arafat during the time of Hajj each year; furthermore, these places can be used efficiently during non-pilgrimage periods.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Concepts of time and location	10%
Defining temporary and tactical urbanism	10%
Forms of temporary urbanism	10%
Principals of temporary and tactical urbanism	10%
Applications of temporary urbanism- Part 1	10%
Applications of temporary urbanism- Part 2	10%
Applications of temporary urbanism- Part 3	10%
Benefits and broader and longer-term problems	10%
Al Mashaaer: Case study analysis - Part 1	10%
Al Mashaaer: Case study analysis - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Lydon, M., & Garcia, A. (2015). Tactical urbanism. Island Press.
Caneschi, F. (2022). Tactical Urbanism and DIY Archictecture. LAP LAMBERT.
Bishop, P., & Williams, L. (2012). The temporary city. Routledge.
Dovey, K. (2016). Urban Design Thinking: A Conceptual Toolkit. Bloomsbury Academic.
Madanipour., A. (2017). Cities in Time: Temporary Urbanism & the Future of the City. Bloomsbury Ac.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Project Management for Planners**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3432			
Prerequisite Course(s)	Urban Design Studio 2: New Areas Development			ARC 3032
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces students to the concept of effective project management (planning, prioritizing, scheduling, budgeting, negotiating, organizing, controlling, managing change, motivating, coaching, and refereeing) and is intended to develop a strategic thinking about project management. Topics covered in the course include the Triple Constraint Theory, Critical Path, PERT, Gantt, and Critical Chain Project Management (CCPM) methods. Besides, the content will focus on two domains. The first domain covers the concepts, theories, and process groups of the project management during the project life cycle (PLC); namely, Project Initiation, Project Planning and Design, Project Execution, Project Monitoring and Controlling, Project Completion. The second domain explores the nine "knowledge areas" of project management.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Concept of effective project management	10%
Triple Constraint Theory (scope, time, and cost)	10%
Critical Path, PERT, Gantt method	10%
Critical Chain Project Management (CCPM) method	10%
Concepts, theories, and process groups of the project management	10%
Project Initiation, Project Planning and Design (or developing), Project Execution (or production)	10%
Project Monitoring and Controlling, Project Completion (or closing)	10%
Scope management, time management and cost management	10%
Quality management, human resource management and communications management	10%
Risk management, procurement management and Integration management	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Clark, T. (2018). Project Management for Planners. Planners press book.
Kloppenborg, T. (2012). Contemporary Project Management. South-Western.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																														
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Terminals Planning and Design**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 3433			
Prerequisite Course(s)	Urban Design Studio 2: New Areas Development			ARC 3032
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course addresses the characteristics of transportation terminals on a mode-by-mode basis (seaports, railways, airports, parking lots, etc.). It reviews methodologies used to study terminal operations for different modes and the management of congestion (input-output diagrams, simulation, optimization, queuing). Although the course covers all transportation modes, freight terminals (ports and railways) receive extra attention to passenger transportation terminals. Besides, the course presents a number of recipes for examining and improving terminal operations. The course also presents the related aspects of terminal operations through modeling and (if necessary) observation.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction	10%
Seaports terminals	10%
Railways terminals	10%
Airports - Part 1	10%
Airports - Part 2	10%
Parking lots	10%
Examining and improving terminal operations - Part 1	10%
Examining and improving terminal operations - Part 1	10%
Terminal operations through modeling - Part 1	10%
Terminal operations through modeling - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Blow, C. (2012). Transport Terminals and Modal Interchanges. Routledge.

Angershou, H. (2004). Planning and design of ports and marine terminals. Civil Eng Pub.

Brown, L. (2010). Airport passenger terminal planning and design. Transportation Research Board.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Fundamentals of Real Estate Development**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 4441			
Prerequisite Course(s)	Graduation Project Studio 1: Integrated Urban Design			ARC 4035
Semester Level	Level:	15	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course offers a better understanding of how the real estate market works. The course emphasis on the supply and demand of land for economic use; the nature and significance of economic rent; real-estate prices and allocation of resources. The various dimensions of land economy (housing, offices, retail, and property valuation) will also be examined in terms of market comparison and replacement cost approaches, operation of real estate markets, land development and investment costs, economic meaning of land conservation; conservation of real estate.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to economics of land uses	10%
The supply and demand of land for economic use	10%
The nature and significance of economic rent	10%
Real-estate prices and allocation of resources	10%
Market comparison and replacement cost approaches	10%
The various dimensions of land economy: Housing, offices	10%
The various dimensions of land economy: Retail and property valuation	10%
Operation of real estate markets	10%
Land development and investment costs	10%
Economic meaning of land conservation	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Gaddy, Jr. and Hart, R. (2019). Real estate fundamentals. DF Institute.
Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.
Fischel, W. (2015). Zoning Rules!. Lincoln Institute of Land Policy. Lincoln Institute of Land Policy.
Brueggeman, W. and Fisher, J. (2021). Real Estate Finance and Investments. McGraw-Hill

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																														
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Ecotourism Planning**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 4442			
Prerequisite Course(s)	Graduation Project Studio 1: Integrated Urban Design			ARC 4035
Semester Level	Level:	15	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

While the incursion of Mass-Tourism has been a serious threat to the sensitive Ecosystem, following the principles of Ecotourism may allow the natural landscape and built heritage to be better maintained and respected than it used to be. This can be achieved through Ecolodge planning. Using sustainable practices and the preservation of local culture and traditions are all important considerations of Ecolodge concept. Therefore, this course introduces students to the principles of Ecotourism planning and Ecolodge.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Tourism: Concept and typology	10%
Cultural / heritage tourism	10%
The impact of tourism on the environment and urbanization	10%
The impact of tourism on the economy and the local community	10%
The concept of tourism development	10%
Ecotourism principles	10%
Ecolodges principles	10%
Inspirational Ecolodge ideas for Ecotourism accommodation - Part 1	10%
Inspirational Ecolodge ideas for Ecotourism accommodation - Part 2	10%
Inspirational Ecolodge ideas for Ecotourism accommodation - Part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Mehta, H. (2002). International ecolodge guidelines. The International Ecotourism Society.
Wood, M. (2002). Ecotourism: Principles, Practices and Policies for Sustainability. UNEP.
Ballantyne, R., & Packer, J. (2013). International handbook on ecotourism. Edward Elgar Publishing.
Skinner, H., & Medway, D. (2017). Responsible Tourism and Place Making. Emerald Publishing.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Selected Topics in Urban Design**			
Module Level	Bachelor of Architecture and Planning (Urban Design)			
Code	ARC 4443			
Prerequisite Course(s)	Graduation Project Studio 1: Integrated Urban Design			ARC 4035
Semester Level	Level:	15	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course engages students on specialized subject matter in a seminar-style learning environment and provides an opportunity to complement existing courses. It has a changing syllabus, which varies on yearly basis according to the updated topics. It covers various topics concerning urban design aspects such as, the impact of human settlement on ecosystems in cities, perceptional boundaries of the city, water front, and restorative cities.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to the course	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Analysis of case studies	10%
Analysis of case studies	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Rahb, R. (2021). Contemporary Approaches in Urbanism and Heritage Studies. Cinius Yay?nlar?.
Roggema, R. (2018). Contemporary Urban Design Thinking. Springer.
Despommier, D. (2010). The vertical farm. St. Martin's.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																														
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

Specifications of

Urban Planning

Courses

Umm Al-Qura University
College of Engineering and Islamic Architecture
Department of Islamic Architecture

Architecture and Planning Program- Urban Planning

1 First Year

First Trimester	4 Architectural Formation Principles Studio 1 ARC 1001	3 Architectural Drawings and Presentation ARC 1302	2 Ancient civilizations and Medieval Architecture ARC 1309	2 Mathematics for Architects MTH 1601	4 English Language 1 ELCN1301	2 Islamic Culture 1 ICC 1201		17
Second Trimester	5 Architectural Formation Principles Studio 2 ARC 1002	3 Architectural Models ARC 1306	2 Design Process and Methods ARC 1308	2 Shade, Shadow and Perspective ARC 1303	4 English Language 2 ELCN1302	2 Digital Technology DS1101		18
Third Trimester	5 Fundamental Design Principles Studio ARC 1003	3 Buildings Design Standards 1 ARC 1314	2 Elective Course 1 ARC 140#	2 Physics for Architects PHY 1115	4 English Language 3 ELCN1303	2 The Holy Quran 1 QR 1101		18

2 Second Year

First Trimester	5 Architectural Design Studio 1: Small Scale Public Buildings ARC 1004	3 Building Construction Studio 1: Site Preparation ARC 1101	2 Vector-based Drawing ARC 1203	2 Introduction to Landscape Architecture ARC 1315	2 Architecture of Islamic Civilization ARC 1310	2 Surveying CE 1632	2 Islamic Culture 2 ICC 2202	18
Second Trimester	5 Architectural Design Studio 2: Medium Scale Public Buildings ARC 1005	3 Building Construction Studio 2: Components of Building Structure ARC 1102	2 3D Modeling ARC 1205	2 Local Architectural Heritage ARC 1304	2 Renaissance and Pre-modern Architecture ARC 1311	2 Environmental control Systems ARC 1317	2 Structure 1 CE 1450	18
Third Trimester	5 Architectural Design Studio 3: Vernacular Architecture ARC 1006	3 Building Construction Studio 3: Components of Building Structure ARC 1103	2 Creative Generative-Design ARC 1201	2 Buildings' Technical Installations ARC 1307	2 Principles of Urban Design ARC 1313	2 Elective Course 2 ARC 141#	2 The Holy Quran 2 QR 2102	18

3 Third Year

First Trimester	5 Architectural Design Studio 4: Conventional Structure Systems ARC 1007	3 Building Construction Studio 4: Technical Drawings ARC 1104	2 Principles of Urban Planning ARC 1312	2 Structure Systems in Architecture ARC 1316	4 Introduction to Urban Design Studio ARC 1109		2 Structure 2 CE 2452	18
Second Trimester	5 Architectural Design Studio 5: Long Spans ARC 1008	3 Building Construction Studio 5: Finishes ARC 1105	2 Sustainable Architecture ARC 1305	2 Elective Course 3 ARC 142#	4 Introduction to Urban Planning Studio ARC 1110		2 Structure 3 CE 2454	18
Third Trimester	8 Cooperative Training ARC 1500							8

مقررات التخطيط العمراني

4 Fourt Year

First Trimester	5 Urban Planning Studio 1: Neighborhood ARC 3051	3 Urban Spatial Analysis Studio ARC 3151	2 Urban Information Systems ARC 3251	2 Urban Planning Theories ARC 3351	2 Advanced studies in Landscape Architecture ARC 3352	2 Housing ARC 3353	2 The Holy Quran 3 QR 3103	18
Second Trimester	5 Urban Planning Studio2: Residential District ARC 3052	3 Landscape Architecture Studio ARC 3152	2 Advanced Urban Information Systems ARC 3252	2 Urban Transportation Planning ARC 3354	2 Urban Service Facilities ARC 3355	2 Islamic Culture 3 ICC 3203	2 Arabic Writing and Editing ARS 1500	18
Third Trimester	5 Urban Planning Studio 3: New City ARC 3053	3 Detailed Urban Planning Studio ARC 3153	2 Computer Applied Statistics ARC 3253	2 Regional Planning ARC 3356	2 Cities and Climate Change ARC 3357	2 Elective Course 1: Urban Planning ARC 345#	2 Elective 1 (General Course)	18

5 Fifth Year

First Trimester	5 Urban Planning Studio 4: Regional Planning ARC 3054	2 Graduation Project Research: Urban Planning ARC 3358	2 Urban Governance ARC 3359	2 Sustainable Cities ARC 3360	2 Urban Infrastructure ARC 3361	2 Public Transportation Planning and Management CE 3513	2 Islamic Culture 4 ICC 4204	17
Second Trimester	7 Graduation Project Studio 1: Urban Planning ARC 4055	2 Urban Economics ARC 4363	2 Urban Sociology and Population ARC 4364	2 Smart Cities ARC 4365	2 The Holy Quran 4 QR 4104	2 Elective 2 (General Course)		17
Third Trimester	7 Graduation Project Studio 2: Urban Planning ARC 4056	2 Multicriteria Assessment of Urban Development Projects ARC 4366	2 Professional Practice of Planning ARC 4367	2 Elective Course 2: Urban Planning ARC 446#	2 Elective 3 (General Course)			15

SCAN ME

Specialized Elective Courses

1	• Digital Architectural Photography	• Arabic Calligraphy and Ornamentation	• Graphic Design Principles
2	• Vocabulary of Islamic Architecture	• Contemporary Mosques Architecture	• Architecture of the Two Holy Mosques
3	• Introduction to Urban Spaces Analysis	• Sustainable Landscape Architecture	• Urban topics in Hajj and Umrah
1	• Urban Indicators	• Technology and Desert Development	• Urban Development in Saudi Arabia
2	• Selected Topics in Urban Planning	• Advanced Topics in Urban Transportation	• Planning Decision-Making Systems

University Elective Courses

- Specialized technology
- Health and Nutrition
- Entrepreneurship
- Work environment
- Hospitality
- Research and innovation

Credit Hours 254

In-person

Online

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Planning Studio 1: Neighborhood**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3051			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
	Introduction to Urban Planning Studio			ARC 1110
Semester Level	Level: 10		Year: 4	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The aim of the studio is to introduce students to the design problems at neighborhood level. The project involves land subdivision, neighborhood planning and architectural residential design. At the same time, the project explores the relationship between the physical environment, the socio-cultural aspect, and the nature of urban design process. The project contains about (2-4) clusters, with a population size ranging between (3000 - 6000) people.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.
K1-f Demonstrate an understanding of theories of the built environment.
S1-b Solve complicated problems associated with the built environment.
S1-c Create innovative concepts and forms for the built environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S1-j Effectively employ digital skills in different stages of designing the built environment.
V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the project and a general review about neighborhood	10%
Data collection to understand problems	10%
Analyzing the collected data to reach the main objectives	10%
Developing alternatives - Part 1	10%
Developing alternatives - Part 2	10%
Evaluating the alternatives based on assessment criteria	10%
Development of various aspects of the selected alternative - Part 1	10%
Development of various aspects of the selected alternative - Part 2	10%
Development of various aspects of the selected alternative - Part 3	10%
Detailed urban design of the neighboring center	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.

Krier, R. (1993). Urban Space. Rizzoli.

Butler, K. (2012). Planning and Urban Design Standards. Wiley.

وزارة الشئون البلدية والقروية. (2016). المعايير التخطيطية للخدمات العامة الإقليمية والمحلية ومستوياتها المختلفة.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																					
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Spatial Analysis Studio.**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3151			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	7.5	Total	13.5
Credit Points	5	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Analysis is a diagnosis of the city's component pieces, to see the relations between these pieces and to assess their condition. This course enables students to examine the form, appearance, and composition of a city-an evaluation of its assets and liabilities. It also enables students to see where the city needs reshaping. The studio deals with different scales-a neighborhood, the center, a suburban area, or a small group of buildings.

4. Intended Learning Outcomes (ILOs)

K1-a Explain processes, methods and fundamentals of designing the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S3-b Analyze data from a variety of sources.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Vocabulary of urban form	10%
Analysis of shape, size and density	10%
Analysis of Landform and nature	10%
Analysis of Pattern, Grain, Texture and Skyline	10%
Analysis of local climate	10%
Analysis of urban spaces and open spaces	10%
Analysis of routes, local streets and pedestrian areas	10%
Analysis of districts, landmarks, nodes and edges	10%
Analysis of activity structure	10%
Analysis of nonphysical aspects	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.
Lynch, K. (1979). The image of the city. MIT Pr.
Moughtin, C. (2016). Urban Design: Street and Square. Routledge.
Butler, K. (2012). Planning and Urban Design Standards. Wiley. ?

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-a			■																							■											
S1-d			■	■																					■												
S1-j				■																															■	■	
S3-b		■																																		■	■
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Information Systems.**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3251			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	3.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is designed to introduce the basic principles of Geographic Information Systems (GIS). The focus is to develop an appreciation of how this technology may be applied to help the tasks of planners in the profession. The students will learn not only the theoretical background but also practical applications. The course content includes methods of data entry and editing, simple data analysis and visualization, and preparation of map layouts.

4. Intended Learning Outcomes (ILOs)

K1-d Demonstrate an understanding of various ways of representing the built environment.

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
GIS software interface	10%
Geospatial data, Georeferenced and Geo Databases	10%
Data entry in GIS - Vector Data	10%
Data entry in GIS - Raster Data	10%
Editing with Aerial photo	10%
Editing geographic data - Part 1	10%
Editing geographic data - Part 2	10%
Visualization data and Symbology - Part 1	10%
Visualization data and Symbology - Part 2	10%
Preparation of map layouts	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Corbin, T. (2020). Learning ArcGIS Pro 2 - Second Edition. Packt Publishing.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-d																																			■		
K1-l																																				■	
S1-j				■																															■	■	
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Planning Theories**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3351			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course places emphasis on theories of urban planning in the twentieth century and beyond. The course ends up with in details explanations of the planning concept of the neighborhood and its elements (planning concept, roads network, services centers, etc.)

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

S1-f Apply the knowledge of historical, social and cultural references in the design of the built environment.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Movements of urban planning: City Beautiful, Practical, Social movements	10%
Garden city movement	10%
Modernism	10%
New urbanism - Part 1	10%
New urbanism - Part 2	10%
Urban renewal theory	10%
Neighborhood Planning Theory: Concepts	10%
Neighborhood Planning Elements	10%
Neighborhood Planning Elements	10%
Neighborhood services centers planning	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

عارف، ح. (1991). تخطيط وتنظيم المدن بين النظرية والتطبيق. جامعة الاسكندرية.

Corbusier, L. (2013). The City of Tomorrow and Its Planning. Dover Publications.

Couch, C. (2016). Urban planning: an Introduction. Macmillan.

Berke, P. and Godschalk, D. (2006). Urban Land Use Planning. University of Illinois Press.

Hack, G., Birch, E., & Sedway, P. (2014). Local Planning. ICMA.

Butler, K. (2012). Planning and Urban Design Standards. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-i																■	■																					
S1-f				■	■									■																								
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Advanced studies in Landscape Architecture.**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3352			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is considered as a continuation of "Introduction to Landscape Architecture" course and is an introduction to "Landscape Studio". This course includes various topics such as site analysis and assessment, site utilities, and special landscape conditions.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

K2-b Demonstrate an understanding of various types of infrastructure systems.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Site analysis and assessment	10%
Pedestrian circulation	10%
Bicycle circulation	10%
Vehicular circulation	10%
Site grading and stormwater management	10%
Site utilities: Water supply	10%
Site utilities: Sewage disposal	10%
Site utilities: Recreational water bodies and Irrigation	10%
Special conditions: Roof and deck landscapes	10%
Special conditions: Sound control	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Dines, N., & Brown, K. (2002). Time-saver standards for landscape architecture. McGraw-Hill.
Allen, E., Ryan, T., & Rand, P. (2013). Detailing for landscape architects. Wiley.
Shehata, A. (2021). Design of Outdoor Spaces. Universal Publishing Ltd.
Littlewood, M. (2012). Landscape Detailing Volume 1. Taylor and Francis.
Littlewood, M. (2012). Landscape Detailing Volume 2. Taylor and Francis.
Littlewood, M. (2012). Landscape Detailing Volume 3. Taylor and Francis.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
K2-b																						■	■														
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Housing.**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3353			
Prerequisite Course(s)	Architectural Design Studio 5: Long Spans			ARC 1008
Semester Level	Level:	10	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The course deals with the definitions, concepts and issues related to housing such as: shelter, housing, population, area density, etc. Furthermore, it discusses types of housing, factors that affect the design of the housing, criteria and design considerations, as well as its problems and solutions. At the end, the course focuses on planning of neighborhood residential areas.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-h Explain the impact of different aspects on the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Definitions of housing	10%
Types of housing	10%
Housing and sustainable living	10%
Housing requirements: Social and economic requirements	10%
Housing requirements: environmental and urban requirements	10%
Criteria and design considerations	10%
Housing site Analysis	10%
Housing problems and solutions	10%
Concept of the Neighborhood	10%
Neighborhood services and its road network	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Clark. W. (2021). Advanced Introduction to Housing Studies. Edward Elgar Publishing.
Firley, E. and Deupi, V. (2022). The Urban Housing Handbook. Wiley.
Towers, G. (2015). An introduction to urban housing design. Routledge.
Butler, K. (2012). Planning and Urban Design Standards. Wiley.
Kliment, S., & Chandler, R. (2010). Building type basics for housing. John Wiley & Sons.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-h																■																						
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Urban Planning Studio2: Residential District**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3052			
Prerequisite Course(s)	Urban Planning Studio 1: Neighborhood			ARC 3051
	Housing			ARC 3333
Semester Level	Level: 11		Year: 4	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Residential district planning plays a very important part during the development process of the city. The aim of this studio is to introduce students to the design problems at residential district level. The project explores the relationship between the physical environment, the socio-cultural aspect, and the nature of urban planning process. The project contains about (3-5) neighborhoods, with a population size ranging between (10000 - 30000) people.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.
K1-h Explain the impact of different aspects on the built environment.
S1-b Solve complicated problems associated with the built environment.
S1-c Create innovative concepts and forms for the built environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S1-j Effectively employ digital skills in different stages of designing the built environment.
V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the project	10%
Data collection and analyzing	10%
Developing alternatives - Part 1	10%
Developing alternatives - Part 2	10%
Developing alternatives - Part 3	10%
Evaluating the alternatives based on assessment criteria	10%
Development of various aspects of the selected alternative - Part 1	10%
Development of various aspects of the selected alternative - Part 2	10%
Development of various aspects of the selected alternative - Part 3	10%
Development of various aspects of the selected alternative - Part 4	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.

Krier, R. (1993). Urban Space. Rizzoli.

Butler, K. (2012). Planning and Urban Design Standards. Wiley.

وزارة الشئون البلدية والقروية. (2016). المعايير التخطيطية للخدمات العامة الإقليمية والمحلية ومستوياتها المختلفة

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-h																■																						
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Landscape Architecture Studio.**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3152			
Prerequisite Course(s)	Urban Planning Studio 1: Neighborhood			ARC 3051
Semester Level	Level:	11	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	7.5	Total	13.5
Credit Points	5	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course aims at developing a landscape project at an urban scale based on a real subject chosen by the coordinator. The students should apply all skills and knowledge to create the convenient and creative projects. Simultaneously, the studio previews the execution of hard and soft-scape elements along with different design stages. Furtherer, it introduces an introduction to writing the landscape specifications.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the studio	10%
Existing condition analysis and demolition plan (if any)	10%
Layout and materials plan	10%
Layout and materials plan	10%
Grading and drainage plan	10%
Road profiles and sections	10%
Plan enlargements	10%
Site sections	10%
Landscape details	10%
Written landscape specifications	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Dines, N., & Brown, K. (2002). Time-saver standards for landscape architecture. McGraw-Hill.
Allen, E., Ryan, T., & Rand, P. (2013). Detailing for landscape architects. Wiley.
Shehata, A. (2021). Design of Outdoor Spaces. Universal Publishing Ltd.
Littlewood, M. (2012). Landscape Detailing Volume 1. Taylor and Francis.
Littlewood, M. (2012). Landscape Detailing Volume 2. Taylor and Francis.
Littlewood, M. (2012). Landscape Detailing Volume 3. Taylor and Francis.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

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1. General Information

Module Name	**Advanced Urban Information Systems**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3252			
Prerequisite Course(s)	Urban Information Systems			ARC 3231
Semester Level	Level:	11	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	2	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is designed to build on the expertise gained by the students in the prerequisite course and enhance their skills in applying Geographic Information Systems for urban and regional planning projects. The course introduces the concepts of Global Positioning System. Furthermore, a comprehensive set of spatial analysis tools are introduced to allow exploring and analyzing spatial data and to find solutions to spatial problems and modeling urban phenomenon. The course also provides general concepts of network analysis and the application of such tools in regional and urban planning. The course introduces basic techniques of estimating spatial data through interpolation and the concepts of 3D GIS.

4. Intended Learning Outcomes (ILOs)

K1-d Demonstrate an understanding of various ways of representing the built environment.

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Global Positioning System	10%
Spatial analysis tools - Part 1	10%
Spatial analysis tools - Part 2	10%
Spatial analysis tools - Part 3	10%
Network analysis - Part 1	10%
Network analysis - Part 2	10%
Network analysis - Part 3	10%
An overview of the Interpolation toolset	10%
3D GIS - Part 1	10%
3D GIS - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Corbin, T. (2020). Learning ArcGIS Pro 2 - Second Edition. Packt Publishing.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-d																																			■		
K1-l																																				■	
S1-j				■																															■	■	
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Transportation Planning**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3354			
Prerequisite Course(s)	Urban Planning Studio 1: Neighborhood			ARC 3051
Semester Level	Level:	11	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course focuses on transportation land use and urban built environment relationships. It includes analytical methods and planning criteria necessary to plan and design urban transportation, forecast origins and destinations, transport modes, traffic generation, road hierarchies and capacity, distribution criteria, pedestrian movement, and parking design.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Intorduction of Transportation Planning	10%
History of Transportaion	10%
Transport modes	10%
Transportaion planning criteria	10%
Forecast origins and destinations	10%
traffic generation	10%
Road hierarchies and capacity	10%
Land use distribution criteria	10%
Pedestrian movement	10%
Parking design	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Meyer, M. (2016). Transportation Planning Handbook. Wiley.
Deakin, E. (2019). Transportation, land use, and environmental planning. Elsevier.
Black, J. (2018). Urban transport planning: Theory and practice. Routledge.
Morimoto, A. (2022). City and transportation planning. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K1-k				■				■																													
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Urban Service Facilities**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3355			
Prerequisite Course(s)	Urban Planning Studio 1: Neighborhood			ARC 3051
Semester Level	Level:	11	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Service facilities are defined as institutional responses to basic human needs, such as health, education, safety, recreation, and worship. Service facilities contribute to the quality of life for both individuals and groups in the community. They provide convenient and efficient services, a sense of identity, and define the visual character of the city. This course provides policies and criteria of various types of service facilities, their relationship to one another, and their location to serve the needs and desires of the community.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Religion planning considerations	10%
Educational services considerations - Part 1	10%
Educational services considerations - Part 2	10%
Cultural and social services considerations	10%
Healthcare services considerations	10%
Security services considerations	10%
Recreational and sports services considerations	10%
Industrial considerations	10%
Administrative and commercial services considerations	10%
Methods for calculating population and densities	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

وزارة الشئون البلدية والقروية. (2016). المعايير التخطيطية للخدمات العامة الإقليمية والمحلية ومستوياتها المختلفة.

Butler, K. (2012). Planning and Urban Design Standards. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Urban Planning Studio 3: New City**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3053			
Prerequisite Course(s)	Urban Planning Studio2: Residential District			ARC 3052
	Urban Service Facilities			ARC 3355
Semester Level	Level: 12		Year: 4	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	12.5	Total	22.5
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The Kingdom is currently witnessing an unprecedented urban development, where a large number of inspiring new cities will be established. This studio is focuses on planning a new city in Saudi Arabia. Students are asked to design the new city regarding the relevant planning requirements, standards and regulations. The location of the city is determined by the coordinator of the studio. Work phases consist of both team and individual work and end by presenting studies and a spatial master plan.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the project	10%
Regional, environmental and socio-economic studies	10%
Housing, services and urban structure studies	10%
Integrative structure of specialty studies	10%
Generating alternatives -Part 1	10%
Generating alternatives -Part 2	10%
Evaluating the alternatives	10%
Final project development -Part 1	10%
Final project development -Part 2	10%
Final project development -Part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Butler, K. (2012). Planning and Urban Design Standards. Wiley.

ELWakil, S. (2006). Urban Planning: Principles, Basics and Applications.

Levy, J. (2016). Contemporary urban planning. Routledge.

Weber, R. & Randal, C. (2015). The oxford handbook of urban planning. 2015.

وزارة الشئون البلدية والقروية. (2016). المعايير التخطيطية للخدمات العامة الإقليمية والمحلية ومستوياتها المختلفة.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Detailed Urban Planning Studio**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3153			
Prerequisite Course(s)	Urban Planning Studio2: Residential District			ARC 3052
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	6	Self-study	6	Total	12
Credit Points	4	CPs.				
Credit Hours	3	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio places emphasizes on land zoning projects. Zoning may be use-based, or it may regulate building height, lot coverage, and similar characteristics, or some combination of these. This studio illustrates principles for the application of urban design through land zoning projects, criteria for land allocation, regulations of land zoning projects, and practical aspects in preparation of these projects. Students are asked to design a zoning project in details.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.
K3-b Identify the relevant laws, rules and legislations that regulate the built environment.
S1-b Solve complicated problems associated with the built environment.
S1-c Create innovative concepts and forms for the built environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S1-j Effectively employ digital skills in different stages of designing the built environment.
V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Principles for the application of urban design through land zoning projects	10%
Criteria for land allocation for public uses	10%
Needs assessment of zoning areas in public utilities	10%
Building conditions for zoning projects	10%
Regulations and laws related to land zoning projects	10%
Practical and procedural aspects in preparation of land zoning projects	10%
Development of the project - Part 1	10%
Development of the project - Part 2	10%
Development of the project - Part 3	10%
Development of the project - Part 4	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	60	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Mia, A. (2011). Land Zoning Report. Ministry of Land, GoB

Watson, D. (2003). Time-Saver Standards for Urban Design. McGraw-Hill.

Butler, K. (2012). Planning and Urban Design Standards. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K3-b												■																										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Computer Applied Statistics**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3253			
Prerequisite Course(s)	Urban Planning Studio2: Residential District			ARC 3052
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	4	Self-study	2	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course explores statistical analysis. Topics covered include how to create and analyze charts, build reports, import spreadsheets, create regression models, and export presentation graphics.

4. Intended Learning Outcomes (ILOs)

K1-l Demonstrate an understanding of the knowledge required to use computer programs in designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S3-b Analyze data from a variety of sources.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
Introduction	10%
Basics of applied statistics - part 1	10%
Basics of applied statistics - part 2	10%
Data visualization	10%
Data wrangling	10%
Recording data	10%
Exploring data	10%
Clustering and Classification	10%
Analyzing data	10%
Building predictive models	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	10	Studio	0	Training	0
	Practical	30	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Computer-based Assignments • Computer-based Exam • Computer-based Exam			
Examination Requirements	Computer Lab.			

8. Reading list

Warner, R. (2020). Applied statistics. SAGE Publications.

McCormick, K., & Salcedo, J. (2017). SPSS statistics for data analysis and visualization. Wiley.

C. Cronk, B. (2019). How to Use SPSS. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-l																																					
S1-j																																					
S3-b																																					
V2-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Regional Planning**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3356			
Prerequisite Course(s)	Urban Planning Studio2: Residential District			ARC 3052
Semester Level	Level:	12	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The regional planning is considered as the second level of spatial planning in Saudi Arabia. Therefore, this course is concerned with the nature of regional planning as particular form of planning. Consideration is given to the historical evolution, definition and scope of regional planning; its particular role and contribution, and its methods and techniques. In addition, this course deals with the process of regionalization and definition of region, the spatial structure of region, and regional planning in the international perspective. This course is an introduction to Urban Planning Studio 4: Regional Planning.

4. Intended Learning Outcomes (ILOs)

K1-a Explain processes, methods and fundamentals of designing the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S3-a Independently seek information and use it appropriately.

V2-c Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility.

5. Contents

Content	Weight
Definition and scope of regional planning	10%
Historical evolution of regional planning	10%
Various aspects affecting the regional planning process	10%
Methods and techniques of regional planning - Part 1	10%
Methods and techniques of regional planning - Part 2	10%
Central-place theory	10%
The spatial structure of region and regional planning	10%
Regional planning in the international perspective - Part 1	10%
Regional planning in the international perspective - Part 2	10%
Regional planning in Saudi Arabia	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Hall, P. & Tewdwr, M. (2020). Urban and Regional Planning. Routledge.
Calthorpe, P. & Fulton, W. (2001). The Regional City. Island Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-a			■																							■											
K1-f																											■										
S3-a																																					
V2-c																																			■		

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Cities and Climate Change**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3357			
Prerequisite Course(s)	Urban Planning Studio2: Residential District			ARC 3052
Semester Level	Level:	12	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Cities face significant impacts from climate change, both now and into the future. This course discusses the consequences of various climate change impact scenarios on cities, ranging from conservative to extreme. Furthermore, it explores policy options for urban planning in response to climate change, with emphasis on changes in urban form.

4. Intended Learning Outcomes (ILOs)

K1-i Demonstrate an understanding of the mutual integration between human and the environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

V2-c Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility.

5. Contents

Content	Weight
Introduction to Cities and Climate Change	10%
Climate change impacts on cities - Part 1	10%
Climate change impacts on cities - Part 2	10%
Urban planning strategies for climate change: Mitigation	10%
Urban planning strategies for climate change: Adaptation	10%
Adaptation: Land use and housing	10%
Adaptation: Transportation	10%
Adaptation: Water supply and sanitation	10%
Adaptation: Solid waste	10%
Adaptation: Energy	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Dodman, D. (2012). Adapting Cities to Climate Change. Routledge.
Allam, Z., Jones, D., & Thondoo, M. (2020). Cities and climate change. Palgrave MacMillan.
Allaoua, Z. (2011). Guide to Climate Change Adaptation in Cities. The World Bank.
Sethi, M. (2017). Climate change and urban settlements. Routledge.
Hamin, E. (2019). Planning for climate change. Taylor and Francs.
Calthorpe, P. (2010). Urbanism in the Age of Climate Change. Island Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-i																■	■																					
K1-k				■				■																														
S3-a																																					
V2-c																																			■		

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Urban Planning Studio 4: Regional Planning**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3054			
Prerequisite Course(s)	Urban Planning Studio 3: New City			ARC 3053
	Regional Planning			ARC 3356
Semester Level	Level: 13		Year: 5	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	10	Self-study	14	Total	24
Credit Points	8	CPs.				
Credit Hours	5	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio examines a range of concepts, approaches and tools of comprehensive regional development. The focus is on real world regional planning problems in its comprehensive context. International experiences and Saudi regional development strategies will be introduced and examined. The new approaches of regional development will also be introduced and examined. Different methods and techniques used to evaluate and implement such regional comprehensive development plan will be explored in more details.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

S3-b Analyze data from a variety of sources.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Concepts, approaches and tools of comprehensive development	10%
Regional planning problems	10%
International regional planning policies and strategies	10%
National regional planning policies and strategies	10%
New approaches of regional development	10%
Evaluation and implementation of regional development plan	10%
Case study analysis - Part 1	10%
Case study analysis - Part 2	10%
Case study analysis - Part 3	10%
Case study analysis - Part 4	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	100	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Hall, P. & Tewdwr, M. (2020). Urban and Regional Planning. Routledge.
Calthorpe, P. & Fulton, W. (2001). The Regional City. Island Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-b		■																																			
S1-d			■	■																					■												
S1-j				■																															■	■	
S3-b		■																																		■	■
V1-b																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Graduation Project Research: Urban Planning**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3358			
Prerequisite Course(s)	Urban Planning Studio 3: New City			ARC 3053
Semester Level	Level:	13	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	10	Total	12
Credit Points	4	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is an introduction to "Graduation Project Studio 1: Urban Planning". It focuses on choosing a graduation project title that matches the student's approach. Furthermore, student will learn how to prepare an actual project methodology through studying and analyzing past experiences and case studies to elicit the learned lessons from these experiences. Moreover, this course acquaints the students with scientific report writing skills as they are required to submit a well-written report on the cited studies.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K3-b Identify the relevant laws, rules and legislations that regulate the built environment.

S3-a Independently seek information and use it appropriately.

S3-b Analyze data from a variety of sources.

S3-c Formulate results of different experiments.

V2-e Complete tasks under pressure and within the expected time frame.

5. Contents

Content	Weight
Introduction of the course	10%
Scientific research objectives and its scope	10%
Research problem, hypothesis and methodology	10%
Selecting the graduation project	10%
Analyses of previous similar projects - Part 1	10%
Analyses of previous similar projects - Part 2	10%
Analyses of previous similar projects - Part 3	10%
Specifying and selecting the appropriate site	10%
Defining required statistics, laws, rules and legislations	10%
Vision of the selected graduation project	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	0	Training	0
	Practical	0	Research Pro	20	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Report stages • Oral Exam • Final Report Submission			
Examination Requirements	Classroom			

8. Reading list

Deetjen, T. (2020). Published: a Gide. Productive Academic.

Schluter, W. (1926). How to do research work. Prentice-Hall, Inc.

Butler, K. (2012). Planning and Urban Design Standards. Wiley.

وزارة الشئون البلدية والقروية. (2016). المعايير التخطيطية للخدمات العامة الإقليمية والمحلية ومستوياتها المختلفة.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K3-b												■																										
S3-a																																					
S3-b		■																																		■	■
S3-c		■																																			
V2-e																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Urban Governance**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3359			
Prerequisite Course(s)	Urban Planning Studio 3: New City			ARC 3053
Semester Level	Level:	13	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course explains the political, socio-economic and administrative setup of local government and city management functions. On one hand, it covers the following concepts and topics: introduction to management thoughts and concepts, city government and its relationship with other level of national government and city management functions. On the other hand, city management is devoted to creating a positive interaction between urban needs and personal inhabitants' interests and needs. Therefore, this course discusses critical parameters in modern concepts of city management such as urban equality, public participation, socio-economic and personal feeling of secure.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

K3-b Identify the relevant laws, rules and legislations that regulate the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction	10%
Contemporary problems of urban management	10%
Management thoughts and concepts	10%
Urban government	10%
City management functions	10%
Political and administrative setup of local government	10%
Parameters of city management: Urban equality	10%
Parameters of city management: Public participation	10%
Parameters of city management: Socio-economic parameter	10%
Parameters of city management: Feeling of secure	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Carmona, M. (2021). Public places urban spaces: The dimensions of urban design. Routledge.
Weith, T. (2020). Sustainable Land Management in a European Context. Intl Springer.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
K3-b												■																										
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Sustainable Cities**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3360			
Prerequisite Course(s)	Urban Planning Studio 3: New City			ARC 3053
Semester Level	Level:	13	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course helps students create sustainable plans for natural systems, energy, water, waste, transportation and many other factors that contribute to quality of life in cities.

4. Intended Learning Outcomes (ILOs)

K1-a Explain processes, methods and fundamentals of designing the built environment.
K1-f Demonstrate an understanding of theories of the built environment.
K1-i Demonstrate an understanding of the mutual integration between human and the environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S1-k Apply various means to achieve sustainable built environment.
V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to sustainable city	10%
Green buildings	10%
Natural systems and ecology	10%
Transportation and land use	10%
Water efficiency	10%
Energy and greenhouse gas emissions	10%
Materials and resources	10%
Quality of life	10%
Case study analysis - Part 1	10%
Case study analysis - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Cohen, S., & Dong, G. (2021). The sustainable city. Columbia University Press.

Clark, W. (2017). Sustainable cities and communities design handbook. Butterworth-Heinemann.

Alvarez-Risco, A. (2021). Building Sustainable Cities. SPRINGER.

Johnston, S., Nicholas, S., & Parzen, J. (2014). The guide to greening cities. Island Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-a			■																							■											
K1-f																											■										
K1-i																■	■																					
S1-d			■	■																					■												
S1-k																			■																		
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Infrastructure**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3361			
Prerequisite Course(s)	Urban Planning Studio 3: New City			ARC 3053
Semester Level	Level:	13	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course places emphasis on all basic urban utilities including electricity, gas, water supplies, sewage systems, storm networks, solid waste disposal and telecommunication. The course articulates basic designs of infrastructure planning as well as their impact on the environment, public health and safety. Moreover, it identifies regulations of safety, and environmental laws that control infrastructure utilities.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K2-b Demonstrate an understanding of various types of infrastructure systems.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to the course	10%
Roads, highways and car parking	10%
Electric power systems	10%
Natural gas	10%
Water supplies	10%
Storm networks	10%
Sewage systems	10%
Telecommunication systems	10%
Solid waste disposal	10%
Methods of forecasting infrastructure demands	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Ascher, K. (2012). The Works: Anatomy of a City. Penguin Press.
Hamada, M. (2014). Critical urban infrastructure handbook. CRC Press.
Butler, K. (2012). Planning and Urban Design Standards. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
K2-b																						■	■														
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Public Transportation Planning and Management.**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	CE 3513			
Prerequisite Course(s)	Urban Planning Studio 3: New City			ARC 3053
Semester Level	Level:	13	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	2.5	Total	4.5
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course introduces principles of public transport planning and management. It focuses on public transport theories and systems. It discuss typologies of public transportation system such as, cars, street cars, bus, bus rapid transit, light rapid transit, railway rapid transit and transit oriented development. The course cover route modeling and assignment, trip timing, distance and scheduling, cost subsidies, public involvement, and sustainable practices.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S3-b Analyze data from a variety of sources.

V2-a Actively participate in finding effective solutions to various issues related to the built environment.

5. Contents

Content	Weight
Principles of Public Transport	10%
Public transport theories and systems	10%
Typologies of public transportation -Part 1	10%
Typologies of public transportation - Part 2	10%
Modeling and assignment	10%
Trip timing	10%
Distance and scheduling	10%
Cost subsidies	10%
Public involvement	10%
Sustainable practices	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Verma A, Ramanayya TV. Public transport planning and management in developing countries. Boca Raton: CRC Press; 2014 Dec 17.

Gray GE, Hoel LA. Public transportation: planning, operations, and management.

Black J. Urban transport planning: Theory and practice. Routledge; 2018 May 30.

Abdallah T. Sustainable Mass Transit: Challenges and Opportunities in Urban Public Transportation.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																																					
K1-k				■				■																													
S3-a																																					
S3-b		■																																		■	■
V2-a										■																											

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Graduation Project Studio 1: Urban Planning**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4055			
Prerequisite Course(s)	Graduation Project Research: Urban Planning			ARC 3358
	Urban Planning Studio 4: Regional Planning			ARC 3054
Semester Level	Level: 14		Year: 5	
Responsible Person	……			
Lecturer(s)	……	……		
	……	……		
	……	……		
	……	……		
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	14	Self-study	20.5	Total	34.5
Credit Points	12	CPs.				
Credit Hours	7	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This design Studio is the 1st phase of the final graduation project. In this phase, students will be working to develop abilities and skills (investigation, analysis and interpretation, planning development and presentation) that enable them to prepare strategies, frameworks, concepts and master plans in a professional and visionary manner. Familiarity with economic, social and environmental factors, analytic and communication techniques will be assumed from previous courses. This phase concentrates on the data collection and analysis stages of the developmental process. Throughout the preparation of this phase, student will grasp the ideology of analyzing the final detailed program, setting alternatives, and taking urban planning decisions.

4. Intended Learning Outcomes (ILOs)

K1-b Define functional requirements and relationships for different sectors of the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

S1-b Solve complicated problems associated with the built environment.

S1-c Create innovative concepts and forms for the built environment.

S1-d Apply the knowledge of theories and methods of designing the built environment.

S1-j Effectively employ digital skills in different stages of designing the built environment.

V1-b Demonstrate respect to different points of view.

5. Contents

Content	Weight
Introduction to the studio	10%
Define feasible urban planning problems	10%
Collect information to understand the selected problems - Part 1	10%
Collect information to understand the selected problems - Part 2	10%
Analyzing the collected data to reach the main objectives - Part 1	10%
Analyzing the collected data to reach the main objectives - Part 2	10%
Developing three scenarios or concepts - Part 1	10%
Developing three scenarios or concepts - Part 2	10%
Developing three scenarios or concepts - Part 3	10%
Evaluating the concepts based on assessment criteria	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	140	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Butler, K. (2012). Planning and Urban Design Standards. Wiley.
ELWakil, S. (2006). Urban Planning: Principles, Basics & Applications.
Levy, J. (2016). Contemporary urban planning. Routledge.
Weber, R. & Randal, C. (2015). The oxford handbook of urban planning. 2015.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-b									■		■				■																						
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V1-b																																					

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Module Specifications P44

1. General Information

Module Name	**Urban Economics**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4363			
Prerequisite Course(s)	Urban Planning Studio 4: Regional Planning			ARC 3054
Semester Level	Level:	14	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	5.5	Total	7.5
Credit Points	3	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The course focuses on strategies that policy makers and planners at all levels use to create healthy urban economies. The course begins by examining the role of the urban economic development specialist, and then examines a range of tools that economic developers/planners use. It also focuses on relatively new strategies for urban economics development and redevelopment. It explores issues of labor force, housing and transportation. Moreover, it examines the role of technology on urban economic development, and discusses various international and Saudi case studies.

4. Intended Learning Outcomes (ILOs)

K1-h Explain the impact of different aspects on the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

K1-m Illustrate fundamentals of economics of the built environment sector.

S1-h Apply the knowledge of built environment economics.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Fundamental concepts of economic theory	10%
Law of supply and demand	10%
The role of the urban economic development specialist	10%
Tools used by economic developers/planners	10%
Economic drivers shaping cities	10%
New strategies for urban economics development and redevelopment	10%
Issues of labor force, housing and transportation	10%
Role of technology on urban economic development	10%
Property feasibility analysis	10%
International and Saudi case studies	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Sieg, H. (2020). Urban Economics and Fiscal Policy. Princeton University Press.
McDonald. J.(1997). Fundamentals of Urban Economics.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-h																■																						
K1-k				■				■																														
K1-m																							■						■		■			■			
S1-h																												■						■			
V1-a																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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Module Specifications P44

1. General Information

Module Name	**Urban Sociology and Population**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4364			
Prerequisite Course(s)	Urban Planning Studio 4: Regional Planning			ARC 3054
Semester Level	Level:	14	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is an introduction to urban sociology and population studies. Organized around an integrated paradigm, the sociospatial perspective, this course illustrates the role played by social factors such as gender, lifestyle, economics, and culture on the development of metropolitan areas. With its unique perspective, concise history of urban life, clear summary of urban social theory, and attention to the impact of culture on urban development, this course gives students a cohesive conceptual framework for understanding cities and urban life. Furthermore, the course demonstrates population studies. Major areas include broad population dynamics; fertility and family dynamics; health, aging, mortality, etc.

4. Intended Learning Outcomes (ILOs)

K1-h Explain the impact of different aspects on the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

V1-a Demonstrate self-discipline and punctuality.

5. Contents

Content	Weight
Ancient urbanization and classical cities	10%
Urban Sociology: Definition and theoretical paradigms	10%
Contemporary urban sociology	10%
People and lifestyle in the metropolises: Urban and suburban culture	10%
Neighborhoods and communities	10%
Metropolitan problems	10%
Metropolitan planning and environmental issues	10%
Population studies - Part 1	10%
Population studies - Part 2	10%
Population studies - Part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Gottdiener, M., Hutchison, R., & Ryan, M. (2019). The new urban sociology. Westview Press.
Petersen, W. (2017). From Birth to Death. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-h																■																					
K1-k				■				■																													
S3-a																																					
V1-a																																					

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Module Specifications P44

1. General Information

Module Name	**Smart Cities**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4365			
Prerequisite Course(s)	Urban Planning Studio 4: Regional Planning			ARC 3054
Semester Level	Level:	14	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The rapidity of technological advances is profoundly changing the way we work and live. The course provides the basics of smart cities and introduces different aspects of smart cities e.g. infrastructure, mobility and buildings. Furthermore, it gives students an overview of current smart city related projects and enables students to develop a vision on which steps can be taken to transform our cities to smart cities.

4. Intended Learning Outcomes (ILOs)

K1-a Explain processes, methods and fundamentals of designing the built environment.

K1-f Demonstrate an understanding of theories of the built environment.

K2-b Demonstrate an understanding of various types of infrastructure systems.

S1-b Solve complicated problems associated with the built environment.

S1-k Apply various means to achieve sustainable built environment.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
What is a smart city?	10%
Advantages of smart cities	10%
Smart cities characteristics and design principles	10%
Components: Smart buildings	10%
Components: Smart transportation systems	10%
Components: Smart infrastructure	10%
Smart city and the Internet of Things	10%
Smart cities and sustainable development	10%
Case study analysis -Part1	10%
Case study analysis -Part2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Komninos, N. (2018). The age of intelligent cities. Routledge.
Song, H., et al. (2017). Smart Cities: Foundations, Principles, and Applications. John Wiley & Sons, Incorporated.
Gassmann, O., Bo?hm, J., & Palmie?, M. (2019). Smart cities. Emerald Publishing Limited.
Tomar, P., & Kaur, G. (2019). Green and smart technologies for smart cities. CRC Press.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-a			■																							■											
K1-f																											■										
K2-b																						■	■														
S1-b		■																																			
S1-k																			■																		
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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1. General Information

Module Name	**Graduation Project Studio 2: Urban Planning**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4056			
Prerequisite Course(s)	Graduation Project Studio 1: Urban Planning			ARC 4055
Semester Level	Level:	15	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	14	Self-study	25	Total	39
Credit Points	13	CPs.				
Credit Hours	7	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This studio is considered as the second phase of the graduation project. Student will continue on what was achieved on the prior course. In this phase, the student develops the urban planning concept selected in the previous phase of the project. The student elaborates on the physical, social, economic, and environmental characteristics of his selected planning alternative.

4. Intended Learning Outcomes (ILOs)

K1-f Demonstrate an understanding of theories of the built environment.
S1-b Solve complicated problems associated with the built environment.
S1-c Create innovative concepts and forms for the built environment.
S1-d Apply the knowledge of theories and methods of designing the built environment.
S1-j Effectively employ digital skills in different stages of designing the built environment.
V2-e Complete tasks under pressure and within the expected time frame.

5. Contents

Content	Weight
Development of various aspects of the selected alternative - Part 1	10%
Development of various aspects of the selected alternative - Part 2	10%
Development of various aspects of the selected alternative - Part 3	10%
Development of various aspects of the selected alternative - Part 4	10%
Development of various aspects of the selected alternative - Part 5	10%
Development of various aspects of the selected alternative - Part 6	10%
Preparing an implementation framework- Part 1	10%
Preparing an implementation framework- Part 2	10%
Defining appropriate policies, actions and legal instruments- Part 1	10%
Defining appropriate policies, actions and legal instruments- Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	0	Studio	140	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	70%	Final Exam	20%
	Mid-term Exam	10%	Total	100%
Forms of Examination	• Oral presentations, Assignments, etc. • Drawing Exam • Oral Exam			
Examination Requirements	Equipped studio			

8. Reading list

Butler, K. (2012). Planning and Urban Design Standards. Wiley.
ELWakil, S. (2006). Urban Planning: Principles, Basics & Applications.
Levy, J. (2016). Contemporary urban planning. Routledge.
Weber, R. & Randal, C. (2015). The oxford handbook of urban planning. 2015.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-f																											■										
S1-b		■																																			
S1-c	■																																				
S1-d			■	■																					■												
S1-j				■																															■	■	
V2-e																																					

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Module Specifications P44

1. General Information

Module Name	**Multicriteria Assessment of Urban Development Projects**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4366			
Prerequisite Course(s)	Graduation Project Studio 1: Urban Planning			ARC 4055
Semester Level	Level:	15	Year:	5
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course involves identifying, evaluating, discussing, and documenting the potential beneficial and adverse consequences of implementing an urban project, development, or program. It considers a broad range of community, financial and natural resources and uses these insights to help shape urban project design. Impact assessment considers the long-term outcomes associated with a project and its operation, and the short-term effects of project implementation, as a result of construction activities.

4. Intended Learning Outcomes (ILOs)

K1-h Explain the impact of different aspects on the built environment.

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction	10%
Role of multicriteria impact assessment in planning project	10%
Multicriteria impact assessment process	10%
Environmental impact assessment considerations - Part 1	10%
Environmental impact assessment considerations - Part 2	10%
Environmental impact assessment considerations - Part 3	10%
Social impact assessment considerations	10%
Introduction to fiscal impact assessment considerations	10%
Case study analysis - Part 1	10%
Case study analysis - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector		• Working documents • Internet connection			

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Nijkamp, P. et al. (2013). Multicriteria evaluation in physical planning. North-Holland.
Alexander, E., & Haughton, P. (2016). Evaluation in Planning. Taylor and Francis.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-h																■																						
K1-k				■				■																														
S3-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Professional Practice of Planning**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4367			
Prerequisite Course(s)	Graduation Project Studio 1: Urban Planning			ARC 4055
Semester Level	Level:	15	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Required Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course is an introduction to principles of professional practice, focusing on the historical, ethical, and legal framework of the practice of urban planning profession in Saudi Arabia. The course includes a review to the responsibility of urban planner in the development of communities and environments. It emphasizes addressing competency requirements matching professional practice expectation in the field of urban planning.

4. Intended Learning Outcomes (ILOs)

K3-a Identify the professional ethics and responsibilities related to the built environment.

K3-b Identify the relevant laws, rules and legislations that regulate the built environment.

S1-g Apply the knowledge of professional and regulatory requirements.

V2-b Demonstrate responsibility for self-learning and continuing personal and professional development.

5. Contents

Content	Weight
An introduction to the state of urban planning professional practice	10%
The professional role of the urban planner	10%
Competencies of an urban planner	10%
Ethics in urban planning profession	10%
Regulations and rules that govern the professional practice	10%
Practicing the urban planning profession in Saudi Arabia	10%
Principles for administering urban planning or consulting offices	10%
Successful management of an urban planning office	10%
Portfolio preparation	10%
Writing of curriculum vitae (CV)	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Saudi building code National committee (2018). The Saudi building code general 201.

Unwin, R. (2020). Town planning in practice. [publisher not identified].

American Institute of Architects. (2017). The architecture student's handbook of prof. practice. Wiley.

Piven, P. (2008). Architect's essentials of starting, assessing, and transitioning a design firm. Wiley.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K3-a													■																	■		■						
K3-b												■																										
S1-g				■																								■										
V2-b																																						

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

Specifications of

Urban Planning

Elective Courses

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Indicators**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3451			
Prerequisite Course(s)	Urban Planning Studio2: Residential District			ARC 3052
Semester Level	Level:	12	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Urban indicators are either a quantitative or qualitative measure that gives information about a topic or issue related to urban activities. This course places emphasis on the twenty key areas of the Habitat Agenda at the city level. It comprises shelter, social, environmental and governance indicators.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction	10%
The data collection process	10%
The urban agglomeration's boundaries definition	10%
Shelter indicators - Part 1	10%
Shelter indicators - Part 2	10%
Social development indicators	10%
Environmental management indicators - Part 1	10%
Environmental management indicators - Part 2	10%
Economic development indicators	10%
Governance indicators	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Habitat. (2004). Urban Indicators Guidelines. UN.

Wong, C. (2011). Indicators for urban and regional planning. Routledge.

Phillips, R. (2017). Community Indicators Measuring Systems.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Technology and Desert Development**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3452			
Prerequisite Course(s)	Urban Planning Studio2: Residential District			ARC 3052
Semester Level	Level:	12	Year:	4
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course focuses on the desert development and technology in Saudi's arid lands. The course covers four themes: (1) Understanding the desert environment; its characteristics, obstacles, and potentialities, (2) Examining the role of development technology in facilitating desert settlement, (3) Critical review of desert development practices in the world, the Middle East Region and in the KSA, and (4) Proper planning strategies for settling the desert.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to the course	10%
Understanding the desert environment	10%
Characteristics, obstacles, and potentialities of desert environment	10%
Development technology and desert settlements	10%
Development technology and desert settlements - Part 1	10%
Desert development practices in the world - Part 2	10%
Desert development practices in the Middle East Region	10%
Desert development practices in Saudi Arabia	10%
Planning strategies for settling the desert - Part 1	10%
Planning strategies for settling the desert - Part 2	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Malloy, R. (2013). Design with the Desert. Taylor & Francis.
Gradus, Y. (1985). Desert Development: Man and Technology. D. Reidel Pub. Co.
Gibbs, J. (2017). Planning and Development in the Desert Southwest. Arizona.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Urban Development in Saudi Arabia**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 3453			
Prerequisite Course(s)	Urban Planning Studio2: Residential District			ARC 3052
Semester Level	Level:	12	Year:	4
Responsible Person	……			
Lecturer(s)	……		……	
	……		……	
	……		……	
	……		……	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

Traditionally, Saudi cities have received great attention from the government, evident in the nurturing of the growth in urbanization and provision of a well-established physical infrastructure. Nevertheless, cities under Saudi Vision 2030 will be both attraction and catalyst for tremendous interventions and experimentations. This course discusses history of urban development in Saudi Arabia and the contemporary vision of development.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction	10%
History of short and medium-term country-wide plans - Part 1	10%
History of short and medium-term country-wide plans - Part 2	10%
Introduction to Saudi vision 2030	10%
Vision 2030: Quality of life in cities program	10%
Vision 2030: Doyof Al Rahman program	10%
Vision 2030: Housing program	10%
Case study analysis - Part 1	10%
Case study analysis - Part 2	10%
Case study analysis - Part 3	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Dept. of Housing and Urban Development. (1977). Housing and urban development in KSA.
Maneval, S. (2019). The Architecture of Public and Private Space in Jeddah, Saudi Arabia. UCL Press.
SALIBA, R. (2021). Urban design in the Arab world. Routledge.
Al-Ankary, K., & Bushra, e. (1989). Urban and rural profiles in Saudi Arabia. G. Borntraeger.
Al-Sedairy, S. (1985). Urban design and community development in Saudi Arabia. Tihama.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Selected Topics in Urban Planning**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4461			
Prerequisite Course(s)	Graduation Project Studio 1: Urban Planning			ARC 4055
Semester Level	Level:	15	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

This course engages students on specialized subject matter in a seminar-style learning environment and provides an opportunity to complement existing courses. It has a changing syllabus, which varies on yearly basis according to the updated topics. This course offers opportunity for study of advanced urban planning topics tailored to fit the requirements of student in a senior standing.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to the course	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Syllabus varies on yearly basis	10%
Analysis of case studies	10%
Analysis of case studies	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

References vary on yearly basis

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

جامعة أم القرى
UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Advanced Topics in Urban Transportation**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4462			
Prerequisite Course(s)	Graduation Project Studio 1: Urban Planning			ARC 4055
Semester Level	Level:	15	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

A seminar course aims to fill in any gaps in the curriculum of urban transportation planning. The course defines the advanced topics in urban transportation such as sustainability, transportation economy, transportation modeling, transportation policies, street scape and further issues of significance, concentrations and new trends. The course also includes applications of special techniques in urban transportation.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction	10%
Transportation economy	10%
Transportation modeling	10%
Transportation policies	10%
Street scape and further	10%
Sustainability	10%
CO2	10%
Supply chain and logistics	10%
Urban regulations	10%
Transportation in Hajj	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Woldeamanuel, M. (2016). Concepts in urban transportation planning. McFarland & Company.

Small, K., & Verhoef, E. (2007). The economics of urban transportation. Routledge.

Morimoto, A. (2022). City and transportation planning. Routledge.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

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UMM AL-QURA UNIVERSITY

Handbook of

Module Specifications P44

1. General Information

Module Name	**Planning Decision-Making Systems**			
Module Level	Bachelor of Architecture and Planning (Urban Planning)			
Code	ARC 4463			
Prerequisite Course(s)	Graduation Project Studio 1: Urban Planning			ARC 4055
Semester Level	Level:	15	Year:	5
Responsible Person	….....			
Lecturer(s)	….....		….....	
	….....		….....	
	….....		….....	
	….....		….....	
Language	English/ Arabic			
Relation to Curriculum	Elective Course			

2. ECTS/ Workload

Workload Hours per Week	Contact	2	Self-study	4	Total	6
Credit Points	2	CPs.				
Credit Hours	2	CHs.				
Req. according to Exam Reg.	Students should participate in at least 75% of the learning activities					

3. Module Summary

The course presents state of the art knowledge about Decision-Making Support Systems (DMSS). Its main goals are to help diffuse knowledge about effective methods and strategies for successfully designing, developing, implementing, and evaluating decision-making support systems, and to create awareness about the relevance of decision-making support systems in the current dynamic management environment.

4. Intended Learning Outcomes (ILOs)

K1-k Demonstrate an understanding of wide range of specialized knowledge related to the built environment.

S3-a Independently seek information and use it appropriately.

S5-a Communicate effectively with others.

V1-a Demonstrate self-discipline and punctuality.

V2-d Demonstrate persistence on achievement and distinction.

5. Contents

Content	Weight
Introduction to decision-making systems	10%
From human decision making to DMSS architecture	10%
Categorizing decision support systems	10%
An architecture for the integration of decision making support functionalities	10%
Spatial decision support systems	10%
Procedural cuing using an expert support system	10%
Innovative features in a distributed decision-support system	10%
Analysis platform for enhancing management decision process	10%
Evacuation planning and spatial decision making	10%
Decision making support systems: Achievements, challenges and opportunities	10%

6. Teaching and Learning Methods

Type of teaching, contact hrs.	Lecture	20	Studio	0	Training	0
	Practical	0	Research Pro	0	Other	
Media Employed	• Whiteboard • Data show projector			• Working documents • Internet connection		

7- Student Assessment

Procedures used and Weight of Assessment	Continuous Asset.	40%	Final Exam	40%
	Mid-term Exam	20%	Total	100%
Forms of Examination	• Assignments, Research and Discussions • Written Exam • Written Exam			
Examination Requirements	Equipped classroom			

8. Reading list

Mora, M., Forgionne, G., & Gupta, J. (2003). Decision making support systems. Idea Group Pub.

Perdicoulis, A. (2010). Systems thinking & decision making in urban and env. planning. Edward Elgar.

الدسوقي، عارف. (1991). نظم المعلومات و دعم القرارات التخطيطية. الاتحاد العربي للمكتبات و المعلومات.

Mapping CLOs, and ASIIN's Los

ASIIN LOs	a. Design competence				b. Knowledge & understanding				c. Social & human sciences							d.Environmental Science				e. Engineering Sciences					f. Design method.			g. Construction economics / management							h. Skills		
	1	2	3	4	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	1	2	3	1	2	3	4	5	6	7	1	2	3
K1-k				■				■																													
S3-a																																					
S5-a																																			■		
V1-a																																					
V2-d																																					

* K: Knowledge S: Skills V: Values, autonomy, and responsibility

College of
Engineering and Architecture

Department of
Architecture