Port Said University
Faculty of Engineering

Architecture &
Urban Planning Department

Program Specification

For

Doctor of Philosophy Degree

in

Architecture & Urban Planning Engineering

2019-2020

Program Specification
For
Doctor of Philosophy Degree in
Architecture & Urban Planning
Engineering

A- Basic Information

Program title: Ph.D Architecture & Urban Planning Engineering.

1- Program type: **Single** ☒ **Double** ☐ **Multiple** ☐

Department (s): Architecture & Urban Planning
3- Assistance Coordinator:
4- Coordinator: The Head of the Department
5- External evaluator(s): NA
6- Last date of program specifications approval: Bylaw 2000.

B- Professional Information

1- Program aims:

This postgraduate PhD program in Architecture and Urban Planning Engineering equips graduate engineers with advanced skill levels in different architectural and urban planning fields by providing advanced academic knowledge and advanced practical and problem-solving skills. The program focuses on the contemporary architecture and urban planning, and their role in the environmental control. It was designed to cover the fields of Bio-Climatic Approach in Design, Environmental Design and Energy Conservation, Influence of Human Activities on Spatial Organization, Aesthetics in Architecture ,Computer in Architecture and Environment, Building Performance and Maintenance, Reviewing The Modern Trends in Urban Design and Urban Planning, Upgrading of Environment, Planning Squatter Areas, Landscaping Studies For Urban Projects, Evolving Urban Development That Faces Developing Cities, Urban Design in Old and new Districts, Humanities and Sociology in Urban Design and Housing, Environmental Effects on Urban Settlements, Mutual Interaction Between Environment and Planning Processes . Also, this program is to produce a well-rounded and well-balanced graduate who can use Architecture and Urban Planning Engineering tools to solve real world problems.

2- Graduate Attributes:

After completing the program the graduate would able to be:

A. Proficiency in the application of the basics and the methodologies of scientific research and the use of its different tools

B. Application of the analytical and critical approach of knowledge in the area of specialization and related fields

C. Integrating of knowledge in the area of specialization and related fields with eliciting and development of the bilateral relations between them

D. Show deep awareness of the current problems and modern theories in the area of specialization.

E. Identify professional problems and find innovative solutions to solve them.

F. Mastery of a wide range of professional skills in the area of specialization

G. Communicate effectively and lead a team working in various professional contexts

H. Make decisions in light of the information available

I. Employment of available resources efficiently, develop them and working on finding new resources.

J. Show awareness of his / her role in community development and environmental conservation.

K. Act reflecting a commitment to integrity and credibility and abide by the rules of the profession

L. Commitment to develop him/her self continuously and transfer him/her knowledge and experience to others

M. Continuing work on the addendum to the knowledge in the area of specialization

N. Orientation to develop of methods, tools and new techniques of professional practice

O. Use of appropriate technology to serve professional applications

3- Intended Learning Outcomes (ILOs) for the whole program

Architecture & Urban Planning Engineering Ph.D Program is designed to achieve the above objectives through the following Intended Learning Outcomes (ILOs):

NAQAAE Academic Reference Standards (ARS)	ILOs	Graduate Attributes	Courses Covering such ILOs (by code)
A. Knowledge and understanding			
A1- Theories, basics and specialized knowledge in the field of learning, as well as other related subjects. **النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة.**	a1-1 Understand the theories, basics and specialized knowledge pertinent to a Ph.D thesis in the research field.	A, C, F, M, N, O	**UPL 614,** ARC 611, ARC 642, UPL 615, UPL 616, UPL 621, UPL 622, UPL 623, UPL 648, UPL 663,Thesis
	a1-2 Understand the theories, basics and specialized knowledge in the field of Architectural Engineering.		**ARC 671, ARC 681,** Thesis
	a1-3 Understand the theories, basics and specialized knowledge in the field of Urban Planning.		**UPL 619**, ARC 642,Thesis

A2- Basics, methodologies and ethics of scientific research and its different tools. **أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.**	a2-1. Recognize Basics, methodologies and ethics of scientific research and its different tools.	K	**ARC 681, UPL 614**, ARC 611, ARC 634, ARC 635, ARC 642, UPL 615, UPL 616, UPL 620, UPL 623, UPL 648, UPL 663,Thesis
A3- Ethical and legal principles of professional practice in the field of specialization **المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص**	a3-1 Report ethical and professional responsibility issues arising in the practice of the engineering profession.	K	**ARC 681,** ARC 635, UPL 616,Thesis
A4- Basics and principles of quality in professional practice in the field of specialization. **مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص.**	a4-1 Explain Quality Assurance concepts of Architectural Engineering and Urban Planning	F, H, I, N, O	**ARC 671,** ARC 634, ARC 642, UPL 620,Thesis
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. **المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.**	a5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	J	**ARC 671, ARC 681, UPL 619,** ARC 635, ARC 642, UPL 615, UPL 616, UPL 620, UPL 622, UPL 623, UPL 648, UPL 663,Thesis
B. Intellectual skills			
B1- Analyze and evaluate information in the field of specialization, and relate it to solve problems and formulate theories. **تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها.**	b1-1 Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	B, C	**ARC 671, ARC 681, UPL 614,** ARC 611,**UPL 619,** ARC 634, ARC 642, UPL 616, UPL 622, UPL 623, UPL 648, UPL 663,Thesis
B2- Solve specialized problems with available givens and parameters. **حل المشاكل المتخصصة استنادا على المعطيات المتاحة.**	b2-1 Apply broad knowledge of modern computational methods and think critically to solve unstructured problems (with complete or incomplete data) related to Architectural Engineering & Urban Planning.	B, C, E	**ARC 671, UPL 614, UPL 619,** ARC 634,Thesis
B3- Perform research and studies to add to the accumulated knowledge. **إجراء دارسات بحثية تضيف إلى المعارف.**	b3-1 Compare and evaluate published articles and research concerning specified problem related to Architectural Engineering and Urban Planning.	A, C, D, E, F, M, N, O	**ARC 681**, ARC 635, ARC 642, UPL 615, UPL 616, UPL 621, UPL 648, UPL 663,Thesis

B4- Write research papers. **صياغة أوراق علمية.**	b4-1 Write scientific article paper(s) covering an appropriate Architectural Engineering and Urban Planning field.	A, D, E, F, M, N, O	ARC 635, UPL 620, UPL 623, Thesis
B5- Assess risks in professional practice. **تقييم المخاطر في الممارسات المهنية.**	b5-1 Evaluate pros and cons of given methodologies for Architectural Engineering and Urban Planning .	J, K	UPL 621,Thesis
B6- Plan for performance development in the field of practice. **التخطيط لتطوير الأداء في مجال التخصص.**	b6-1 Plane to guide progress in his/her professional career.	C, L, M, N, O	ARC 611, ARC 635, ARC 642, UPL 615, UPL 616, UPL 620, UPL 622, UPL 623, UPL 648, UPL 663,Thesis
B7- Take professional decisions in different practical contexts. **اتخاذ القرارات المهنية في سياقات مهنية مختلفة.**	b7-1 Acquire decision making capabilities in different situation when facing problems related to Architectural Engineering and Urban Planning .	H	ARC 634, UPL 616, UPL 620, UPL 621,Thesis
B8- Be creative and innovative. **الابتكار/ الإبداع.**	b8-1 Demonstrate creative and innovative thinking in problems solving, using latest engineering techniques, skills, and tools.	B, C, E, H, N, O	Thesis
B9- Performing conversations and discussions built on the basis of evidence and proofs. **الحوار والنقاش المبني على البراهين والأدلة.**	b9-1 Manage discussions on basis of evidence and proofs	K, L	Thesis
C. Professional and practical skills			
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص.**	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	A, B, C, D, E, F	**ARC 671, ARC 681, UPL 614, UPL 619,** ARC 611, ARC 635, ARC 642, UPL 615, UPL 616, UPL 621, UPL 622, UPL 623 UPL 648, UPL 663,Thesis
C2- Write and evaluate technical and professional reports. **كتابة وتقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning .	A, L	**ARC 681, UPL 614, UPL 619,** ARC 611, ARC 634, ARC 635, ARC 642, UPL 615, UPL 616, UPL 620, UPL 622, UPL 648, UPL 663,Thesis
C3- Evaluate and development the means and tools available in the field of practice. **تقييم وتطوير الطرق والأدوات القائمة في مجال التخصص.**	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	A, E, F, H, I, M, N, O	**ARC 671, UPL 614,** ARC 642, UPL 615, UPL 616, UPL 620, UPL 623, UPL 648, UPL 663,Thesis

C4- Use technology to enhance professional practice. **استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية.**	c4-1 Express competence skills to use technology to advance practice	M, N, O	Thesis
C5- Plan for performance development in the field of practice and enhance performance of others. **التخطيط لتطوير الممارسة المهنية وتنمية أداء الآخرين.**	c5-1 Plan professional development courses to improve practice and enhance performance of juniors in the field Architectural Engineering and Urban Planning .	M, N, O	Thesis
D. General and transferable skills			
D1- Communicate effectively using all different methods **التواصل الفعال بأنواعه المختلفة**	d1-1 Communicate effectively with the scientific community, research team and technocrats involved in multinational companies in the related fields to Architectural Engineering and Urban Planning.	G	**ARC 681, UPL 619,** ARC 642,Thesis
D2- Use information technology to enhance his/her professional practice. **استخدام تكنولوجيا المعلومات بما يخدم تطوير الممارسة المهنية.**	d2-1 Employ the information technology skills to serve his / her career development.	A, F, I, L	**ARC 671, ARC 681, UPL 614,** ARC 611, ARC 635, UPL 616, UPL 620, UPL 621, UPL 622, UPL 663,Thesis
D3- Educating and evaluating others. **تعليم الآخرين وتقييم أداءهم.**	d3-1 Design standards to evaluate others performance.	G, K	**UPL 614,** Thesis
D4- Use different sources to obtain knowledge and information. **استخدام المصادر المختلفة للحصول على المعلومات والمعارف**	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	C, L	**ARC 671, ARC 681, UPL 614, UPL 619,** ARC 611, ARC 635, ARC 642, UPL 615, UPL 616, UPL 622, UPL 623, UPL 648, UPL 663,Thesis
D5- Work as team leader as well as a member in larger teams. **العمل في فريق وقيادة فرق العمل.**	d5-1 Practice team working, and lead teams in specified professional jobs.	G	**UPL 619,** ARC 635, ARC 642, UPL 615, UPL 621, UPL 623, UPL 648, UPL 663,Thesis
D6- Manage scientific meetings and appropriately utilize time. **إدارة اللقاءات العلمية والقدرة علي إدارة الوقت.**	d6-1 Manage scientific meetings and appropriately utilize time.	G, I	Thesis
D7- Self evaluation and continuous learning. **التقييم الذاتي والتعلم المستمر.**	d7-1 Seek continuous learning through continuous education, organizing and participating in seminars, workshops, national and international conferences.	L	**ARC 671, ARC 681**, ARC 634, ARC 635, ARC 642, UPL 615, UPL 616, UPL 623, UPL 648, UPL 663,Thesis

4- Program Academic Reference Standards (ARS)

The external references for standards considered in the development of this program were the Academic Reference Standards (ARS) for postgraduate programs prepared by the National Authority for Quality Assurance and Accreditation (NAQAAE) on 2009. These standards set out the attributes and academic characteristics that are expected to be achieved by the end of the program.

5- Program Structure and Contents:

5.1 Program Duration: a minimum of 2 years & a maximum of 5 years (including one year of preparatory courses)

5.2 Program Structure:

Awarding a Ph.D Degree in Architecture and Urban Planning requires the study of courses amounting to 12 hours weekly for one academic year. These courses are directly related to the topic of his research, selected by the supervision team and approved by the department council.

It also requires the execution of scientific research that terminated by writing a thesis containing the research results and its complete analysis and defending it successfully.

5.3 Program Contents (Courses):

- **Specialized Requirements Courses*:**

Course Code	Course Title	Course Hours/Week	Marks Written Exam
HUM 622	Research Methodology (2)	3	100
ARC 611	Feasibility Studies and Project Development	3	100
ARC 633	Contemporary Architectural Thought	3	100
ARC 634	Architecture and The Future	3	100
ARC 635	Specialized Studies	3	100
ARC 641	Humanistic Parameter in Architecture	3	100
ARC 642	Socio-Culture Aspects in Space Design	3	100
ARC 671	Computer in Architecture and Environment **	3	100
ARC 681	Man and Environmental Control **	3	100
UPL 612	Urban Development Economy	3	100
UPL 613	Planning Squatter Area	3	100
UPL 614	Directed Research **	3	100
UPL 615	Planning Residential Areas	3	100
UPL 616	Managing of Urban Development	3	100
UPL 617	Urban Design in Old Districts	3	100
UPL 618	Urban Design in New Districts	3	100
UPL 619	Management of Urban Environment**	3	100
UPL 620	Comparative Analysis of Urban Applications	3	100
UPL 621	Statistics and Urban Demographic Studies	3	100
UPL 622	Urban Design and Planning in Developing Countries	3	100
UPL 623	Comparative Analysis of Urban Fabrics	3	100
UPL 648	Environmental Planning for Urban Projects (2)	3	100
UPL 663	Contemporary Trends of Urban Design (2)	3	100

* Select only 4 courses related to the research topic.

** The activated courses

6- Evaluation of program intended learning outcomes:

- Written examinations for the preparatory year after 28 weeks.
- An examiners committee is approved by the faculty council (including at least one external examiner). The evaluation of the thesis and the discussion is carried out in an open session.

7- Program Matrix:

The following table explains the ILO's (of the current program) – Course (main ILOs) matrix.

Program Matrix: ILO's (Doctor of Philosophy of Architecture & Urban Planning engineering program)
Course (main ILOs) matrix

Courses Codes	ARC								UPL														HUM	Thesis
	ARC 611	ARC 633	ARC 634	ARC 635	ARC 641	ARC 642	ARC 671	ARC 681	UPL 612	UPL 613	UPL 614	UPL 615	UPL 616	UPL 617	UPL 618	UPL 619	UPL 620	UPL 621	UPL 622	UPL 623	UPL 648	UPL 663	HUM 622	
ILOs																								
a1-1	**X**				X						X			X					X				X	
a1-2		X			X	X	X	X				X	X							X	X	X		
a1-3						X			X	X				X	X	X		X						
a2-1	**X**	X		X	X	X		X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
a3-1		X	X	X		X		X	X			X	X		X					X	X	X	X	X
a4-1					X	X	X						X	X	X									X
a5-1			X				X	X							X	X	X							X
a6-1		X		X								X	X		X		X				X	X	X	X
b1-1	**X**	X	X		X	X	X	X	X	X	X		X	X		X			X	X	X	X	X	X
b2-1							X		X	X	X				X	X								X
b3-1		X	X	X	X	X		X	X	X		X	X		X			X			X	X	X	X
b4-1				X	X				X					X			X			X				X
b5-1										X					X			X						X
b6-1	**X**	X		X		X						X	X				X		X	X	X	X	X	X
b7-1			X		X				X				X		X		X	X						X
c1-1	**X**	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
c2-1	**X**	X	X	X		X		X	X	X	X	X	X		X	X	X		X		X	X	X	X
c3-1		X				X	X			X	X	X	X				X			X	X	X	X	X
d1-1					X	X		X	X	X					X	X							X	X
d2-1	**X**	X		X			X	X	X		X		X		X		X	X	X		X	X	X	X
d3-1			X								X												X	X
d4-1							X	X	X		X				X	X								X
d5-1	**X**	X		X	X	X			X	X		X	X	X	X	X			X	X	X	X	X	X	
d6-1		X		X	X	X			X	X		X		X	X			X		X	X	X	X	X
d7-1							X	X	X						X									X
d8-1		X		X		X						X	X		X						X	X	X	

- ***Program Coordination Committee:***

Program coordinator: **Dr. Basma Nashaat El-Mowafy**

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Date: 2019/2020

ARC 671

Computer in architecture and environment

Course Specification

Program on which the course is given	Ph.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	Ph.D **Graduate Program**
Date of specification approval	2020

A- Basic Information

Title: Computer in architecture and environment	**Code Symbol**: ARC 671	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course will improve skills of the leading design software and systems and Research in an Area of Interest, Recording Data About the Application of Computers of That Area, Analyzing Data in view of Procedures and Concepts, Concluding with an Educational Script of Results.

Course Objectives

By the end of the course the students will be able to:

- Deal with the design process computer applications in architectural environment.
- Suggest and evaluate alternative solutions
- Use computer applications in architectural and urban planning.

2. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	ILOs	Course ILOs
A. Knowledge and understanding		
A1- Theories, basics and specialized knowledge in the field of learning, as well as other related subjects. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة.	a1-2 Understand the theories, basics and specialized knowledge in the field of Architectural Engineering.	a1-2 -1 Recognize the analysis of the application of computer of specific area. a1-2-2 Recognize data in view of procedures and concepts architecture. a1-2-3 Investigate the applications in Architectural Computer software for solving professional problems a1-2-4 State the applications in environmental simulation software for solving professional problems.

A4- Basics and principles of quality in professional practice in the field of specialization. مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص.	a4-1 Explain Quality Assurance concepts of Architectural Engineering and Urban Planning .	a4-1 -1 Relate acquired knowledge to deal effectively with architecture.
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.	a5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a5-1-1 Investigate environmental architecture simulation software to achieve environmental comfort and maintaining the environment
B. Intellectual skills		
B1- Analyze and evaluate information in the field of specialization, and relate it to solve problems and formulate theories. تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها.	b1-1 Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to architectural engineering problems
B2- Solve specialized problems with available givens and parameters. حل المشاكل المتخصصة استنادا على المعطيات المتاحة.	b2-1 Apply broad knowledge of modern computational methods and think critically to solve unstructured problems (with complete or incomplete data) related to Architectural	b2-1-1 Assess broad knowledge of modern Computer software and environmental simulation software and think critically to solve unstructured problems

	Engineering and Urban Planning.	(with complete or incomplete data)

C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص.	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Employ competence skills, such as identifying, formulating, analyzing, and creating computer solutions related to architectural engineering problems, using latest architectural engineering techniques, skills, and tools. c1-1-2 Utilize tools, techniques and software relevant to architectural problems
C3- Evaluate and development the means and tools available in the field of practice. تقييم وتطوير الطرق والأدوات القائمة في مجال التخصص.	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	c3-1-1 Evaluate methods and tools reported in a specified published articles and researches related to computers application and environmental simulation software.
D. General and transferrable skills		
D2- Use information technology to enhance his/her professional practice استخدام تكنولوجيا المعلومات بما يخدم تطوير الممارسة المهنية.	d2-1Employ the information technology skills to serve his / her career development.	d2-1-1 Use Architectural Computer software and environmental simulation software for solving professional problems related to Architectural Engineering.

D4- Use different sources to obtain knowledge and information. استخدام المصادر المختلفة للحصول على المعلومات والمعارف	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about computers application
D7- Self-evaluation and continuous learning. التقييم الذاتي والتعلم المستمر.	d7-1Seek continuous learning through continuous education, organizing and participating in seminars, workshops, national and international conferences.	d7-1-1 Acquire the ability to learn more about computers application and environmental simulation software

3. Course Contents.

Topic	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*
		Lec.	**Tut.**	**Lab.**	
Introduction	12	8	4	--	a1-2 -1, a1-2-2 , b1-1-1, c1-1-1
Research in an area of interest	12	8	4	--	a1-2-3 , b1-1-1, c1-1-1
Recording data about the application of computer of that area	24	16	8	--	a1-2-4, b1-1-1 , b2-1-1, c1-1-1, c1-1-2, c3-1-1, d2-1-1, d4-1-1, d7-2-1
Analyzing data in view of procedures and concepts	24	16	8	--	a1-2-4 ,b1-1-1 , b2-1-1, c1-1-1, c1-1-2, c3-1-1, d2-1-1, d4-1-1
Concluding with an educational script of results	18	12	6	--	a4-1 -1, a5-1-1, b1-1-1, c1-1-1, d2-1-1, d7-1-1
Total	90	60	30	--	

4. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A1 (a1-2), A4 (a4-1), A5(a5-1).	B1 (b1-1), B2 (b2-1).	C1 (c1-1), C3 (c3-1).	D2 (d2-1), D4 (d3-1), D7 (d5-1).

5. Course Subject Area:

A	B	C	D	E	F	G	
Humanities & Social Science	**Mathematics**	**Basic Engineering Science**	**Applied Engineering And Design**	**Computer Applications**	**Projects and practice**	**Disccretionry subject**	**Total**
---	10%	5%	20%	40%	25%	---	100%

6. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-4
2nd	The social ,technological and Culture transformations	5-8
3rd	New architecture trends	9-16
4th	New approaches to materials and structure	17-24
5th	The ethics and aesthetics of sustainability,	25-30

7. ILOs Matrix Topics

Course topics	1st	2nd	3rd	4th	5th
Course ILOs	**Knowledge & Understanding**				
a1-2 -1 Recognize the analysis of the application of computer of specific area.	X				
a1-2-2 Recognize data in view of procedures and concepts architecture.	X				
a1-2-3 Investigate the applications in Architectural Computer software for solving professional problems		X			
a1-2-4 State the applications in environmental simulation software for solving professional problems.			X	X	
a4-1 -1 Relate acquired knowledge to deal effectively with architecture.					X
a5-1-1 Investigate environmental architecture simulation software to achieve environmental comfort and maintaining the environment					X
Course ILOs	**Intellectual Skills**				
b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to architectural engineering problems	X	X	X	X	X
b2-1-1 Assess broad knowledge of modern Computer software and environmental simulation software and think critically to solve unstructured problems (with complete or incomplete data)			X	X	
Course ILOs	**Professional Skill**				
c1-1-1 Employ competence skills, such as identifying, formulating, analyzing, and creating computer solutions related to architectural engineering problems, using latest architectural engineering techniques, skills, and tools.	X	X	X	X	X

c1-1-2 Utilize tools, techniques and software relevant to architectural problems.			X	X		
c3-1-1 Evaluate methods and tools reported in a specified published articles and researches related to computers application and environmental simulation software.			X	X		
Course ILOs	General Skills					
d2-1-1 Use Architectural Computer software and environmental simulation software for solving professional problems related to Architectural Engineering.			X	X	X	
d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about computers application			X	X	X	
d7-1-1 Acquire the ability to learn more about computers application and environmental simulation software			X	X	X	

8. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-2-1	x				x							x	
	a1-2-2	x		x		x							x	
	a1-2-3	x				x							x	
	a1-2-4	x		x		x							x	
	a4-1-1	x		x		x							x	
	a5-1-1	x				x							x	

Intellectual Skills	b1-1-1			x		x								x
	b2-1-1			x		x								x
Professional Skills	c1-1-1	x		x						x				
	c1-1-2	x		x						x				
	c3-1-1	x												
General Skills	d2-1-1		x						x	x			x	x
	d4-1-1		x						x	x			x	x
	d7-1-1		x						x	x			x	x

9. Assessment

9.1 Assessment Methods

Final Written Examination : to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

9.2 Assessment Schedule and Grades Distribution

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

10. Facilities required for teaching and learning

- **Laboratory Usage:** None.
- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

11. List of References:

Course and Lab Notes:

- Course description sheets.

Essential Books (Text Books):

- Bass.L,et.al (2015) Software architecture in practice, third edition.

- Hennessy, J. L., & Patterson, D. A. (2011). Computer architecture: a quantitative approach. Elsevier.
- Taylor.R,et.al (2010) Software architecture foundations,theory and practice. John wiley and sons,Inc
- Tim Cornick (2005)Computer-Integrated Building Design.

12.Program Coordination Committee:

Course Coordinator:	**Prof. Dr** Ashraf Abd-Elfatah El-Mokadem
Program Coordinator	**Dr.** Basma Nashaat El-Mowafy
Head of the Department:	**Prof. Dr.** Ashraf Abd-Elfatah El-Mokadem

Date: 10-2020

ARC 681

Man and Environment Control

Course Specification

Program on which the course is given	**PHD** Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PHD Graduate Program**
Date of specification approval	2020

A- Basic Information

Title: Man and Environment Control -	**Code Symbol: - ARC 681**	
Lecture	3 hours	
Tutorial / Laboratory	-- hours/week	
Total	**3** hours	Bylaw 2000

B- Professional Information

1. Course Aims:

Impact of Physical Environment on Man, Bio-Climatic Analysis for Climatic Regions, Use of Bio-Climatic Chart, Use of Sun-Path Diagram, Thermal Behavior of Materials, Thermal Exchange Between Buildings and Environment, Air Movement in Urban Spaces, Strategies of Environment Design for Climatic Regions, Requirements of Comfort in Luminous Environment, Design Guidelines for Natural Lighting, Supplementary Artificial Lighting. Requirements of Acoustic

Design, Sound Transmission, and Insulation. Design Principles and Architectural Treatment for Building Acoustics.

2. Course Objectives

1- Recognize the basic architectural physics and psychophysics related to the luminous (Daylighting) and thermal environments, their terminologies and units of measurement.
2- Demonstrate the knowledge and understand of the importance environmental control and energy conservation and its influence on the design of buildings consequently on human needs, comfort , performance and well-being.
3- Expand the student's knowledge of pasive energy conseravtion
4- Recognize the different basics of architectural physics and psychophysics related to the luminous (Daylighting) and thermal environments.

3. Intended Learning Outcomes (ILOs)

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	ILOs	Course ILOs
A. Knowledge and understanding		
A1- - Theories, basics and specialized knowledge in the field of learning, as well as other related subjects. النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة.	a1-2 Understand the theories, basics and specialized knowledge in the field of Architectural Engineering.	a-1-2-1 Recognize the analysis of regional climatic conditions. a-1-2-2- Recognize climatic processes and techniques a-1-2-3- Recognize the environmental indoor thermal and lighting theories
A2- Basics, methodologies and ethics of scientific research and its different tools. أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.	a2-1. Recognize Basics, methodologies and ethics of scientific research and its different tools.	a2-1-1 State the basic methods of analysis a2-1-2 Estimate the basic skills of making Proposals.

A3- Ethical and legal principles of professional practice in the field of specialization	a3-1 Report ethnical and professional responsibility issues arising in the practice of the engineering profession.	a3-1-1- Identify necessary practical and professional skills concerning to scientific methodology.
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.	a5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a5-1-1- Define the energy conservation on life. a5-1-2- Outline the way of creating a comfort spaces to live in. a5-1-3 Distinguish environmental architecture simulation software to achieve environmental comfort and maintaining the environment
B. Intellectual skills		
B1- Analyze and evaluate information in the field of specialization, and relate it to solve problems and formulate theories. تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها.	b1-1 Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to architectural engineering problems
B3- Perform research and studies to add to the accumulated knowledge. إجراء دارسات بحثية تضيف إلى المعارف.	b3-1 Compare and evaluate published articles and research concerning specified problem .	b3-1-1- Analyze how to make research and article about environmental control.
C. Professional and practical skills		

C1- Master the basic as well as the latest professional skills in the field of specialization. إتقان المهارات المهنية الأساسية والحديثة في مجال التخصص.	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Illustrate competence skills, such as identifying, formulating, analyzing, and creating environmental design solutions using latest architectural engineering techniques, skills, and tools. c1-1-2 Employ tools, techniques and software relevant to environmental architectural problems
C2- Write and evaluate technical and professional reports. كتابة وتقييم التقارير المهنية	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning .	C2-1-1 Assess the analytical studies that could affect his research.
D. General and transferrable skills		
D1- Communicate effectively using all methods.	d1-1- Communicate effectively with the scientific community, research team and technocrats involved in multinational companies in the related fields to Architectural Engineering and Urban Planning.	d1-1-1- Prepare selected parts of the course in oral seminar using available displaying equipments.
D2- Use information technology to enhance his/her professional practice استخدام تكنولوجيا المعلومات بما يخدم تطوير الممارسة المهنية.	d2-1 Employ the information technology skills to serve his / her career development.	d2-1-1 Use Architectural Computer software and environmental simulation software for solving professional problems related to Architectural Engineering.
D4- Use different sources to obtain knowledge and information. استخدام المصادر المختلفة للحصول على المعلومات	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their

والمعارف		conceptual knowledge . d4-1-1- Prepare short essays in certain topics of the course. d4-1-2- Use of text- book to collect the data that he needs.
D7- Self evaluation and continuous learning. التقييم الذاتي والتعلم المستمر.	d7-1 Seek continuous learning through continuous education, organizing and participating in seminars, workshops, national and international conferences.	d7-1-1 Acquire the ability to learn more about environmental design by self criticism and by choose their point of search.

4. Course Contents

Lecture Topic	Total Hours	Lecture Hours	Practical /Tutorial Hours
1- Introduction; what is scientific research, Scientific Research fields.	6	6	--
2- Impact of physical environment on man	9	9	--
3- Bio-climatic analysis for climatic regions	6	6	--
4- Use of bio-climatic chart	6	6	--
5- Use of sun-path diagram	12	12	--
6- Thermal behavior of materials	9	9	--
7- Thermal exchange between buildings and environment.	12	12	--
8- Air movement in urban spaces	9	9	--
9- Comfort condition	6	6	--
10- Design guidelines	16	16	--
Total	90	90	--

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge &	Intellectual	Professional	General

	Understanding	Skills	Skills	Skills
Programme Academic Standards that the course contributes in achieving.	A1, A2, A3 ,a5 (a-1-2,a2-1,a3-1, a5-1)	B1 (b1-1), B3 (b3-1),	C1 (c1-1), C2 (c2-1)	D1 (d1-1), D2 (d2-1), D4 (d4-1), D7 (d7-1)

1- Course Subject Area:

A	B	C	D	E	F	G	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
---	20%	40%	30%	10%	-	-	100 %

2- Course Topics.

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
Weeks1,2	Introduction; what is scientific research, Scientific Research fields.	6	6	--		a1-2-1 a1-2-2, a2-1-1	1
Weeks 3,4,5	Impact of physical environment on man	9	9	--		a1-2-1 ,a3-1-1 a5-1-2	2
Weeks 6,7	Bio-climatic analysis for climatic regions	6	6	--		a2-1-2 , a3-1-1	3
Weeks 8,9	Use of bio-climatic chart	6	6	--		a3-1-1 , a5-1-2	4
Weeks 10,11,12,13	Use of sun-path diagram	12	12	--		a2-1-1, b1-1-1, d1-1-1-d2-1-1,d4-1-1	5
Weeks 14,15,16	Thermal behavior of materials	9	9	--		b1-1-1 , b3-1-1	6
Weeks 17,18,19,20	Thermal exchange between buildings and environment.	12	12	--		a5-1-3,b1-1-1, b3-1-1, c1-1-1	7

Weeks 21,22,23	Air movement in urban spaces	9	9	--		a3-1-1 ,b3-1-1, d2-1-1 , d4-1-1	8
Week 24,25	Comfort condition	6	6	--		a3-1-1,c2-1-1, d2-1-1	9
Weeks 26-30	Design guidelines	9	9	--		b3-1-1, c1-1-2, d7-1-1	10
Total		**90**	**90**	**--**	**-**		

3- ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	**9th**	**10th**
Course ILOs	**Knowledge & Understanding**									
a1-2-1 Recognize the analysis of regional climatic conditions. a1-2-2- Recognize climatic processes and techniques a1-2-3- Recognize the environmental indoor thermal and lighting theories	x	x								
A2-1-1 State the basic methods of analysis A2-1-2 Estimate the basic skills of making Proposals.	x		x		x					
A3-1-1-Identify necessary practical and professional skills concerning to scientific methodology.		x	x							
A5-1-1- Define the energy conservation on life. A5-1-2- Outline the way of creating a comfort spaces to live in. a5-1-3 Distinguish environmental architecture simulation software to achieve environmental comfort and maintaining the environment			x	x						
B. Intellectual skills	**Intellectual Skills**									
b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to architectural engineering problems					x	x	x			

b3-1-1- Analyze how to make research and article about environmental control.						x	x	x		x
C. Professional and practical skills	**Professional Skill**									
c1-1-1 Illustrate competence skills, such as identifying, formulating, analyzing, and creating environmental design solutions using latest architectural engineering techniques, skills, and tools. c1-1-2 Employ tools, techniques and software relevant to environmental architectural problems							x			x
C2-1-1 Assess the analytical studies that could affect his research.									x	
D. General and transferrable skills	General Skills									
d1-1-1- Prepare selected parts of the course in oral seminar using available displaying equipments.					x					
d2-1-1 Use Architectural Computer software and environmental simulation software for solving professional problems related to Architectural Engineering.					x			x	x	
d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge . d4-1-1- Prepare short essays in certain topics of the course. d4-1-2- Use of text- book to collect the data that he needs.					x			x		
d7-1-1 Acquire the ability to learn more about environmental design by self criticism and by choose their point of search.										x

9-<u>Teaching and Learning Method:</u>

Course Intended learning	Teaching and Learning Method

outcomes (ILOs)		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-2-1	x												
	a1-2-2	x												
	a1-2-3	x												
	a2-1-1		x						x	x				
	a2-1-2			x					x	x				
	a3-1-1			x					x	x				
Intellectual Skills	b1-1-1					x								
	b3-1-1					x								
Professional Skills	c1-1-1					x								
	C1-1-2		x	x					x	x				
	C2-1-1		x	x					x	x				
General Skills	D1-1-1	x											x	
	D2-1-1		x							x				
	D4-1-1								x					x
	D4-1-2		x	x					x	x				x
	D7-1-1		x							x				x

10- Assessment

10.1 Assessment Methods

Final Written Examination : to assess students' knowledge, understanding, analysis,

creativity, problem solving, and problem identification.

10.2 Assessment Schedule and Grades Distribution

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11- Facilities required for teaching and learning

- **Laboratory Usage:** None.

- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12- List of References:

6.1- Course notes: None

6.2- Text books:

1. Victor, Peter A. *Pollution: economy and environment*. Routledge, 2017.
2. Olgyay, Victor. *Design with Climate: Bioclimatic Approach to Architectural Regionalism-New and expanded Edition*. Princeton university press, 2015.
3. Brown,G.Z. , " SUN , WIND & LIGHT, ARCHITECTURAL DESIGN STRATEGIES", John Wiley & Sons , Inc.2000

6.3- Recommended books:

1. Victor Olgyay, Design with Climate: Bioclimatic Approach to Architectural Regionalism, 2015.
2. Smith, David Lee. Environmental Issues for Architecture. John Wiley & Sons, 2011.
3. Baird, George. The architectural expression of environmental control systems. Taylor & Francis, 2003.
4. Nick Baker and Koen Steemers , DAYLIGHT DESIGN OF BUILDINGS, James & James (Science Publishers) Ltd, UK. (2002).

6.4- Periodicals, Web Sites, etc.

1. http://www.egyptarch.net/egypt architect.
2. http://www.azsolarcenter.com/design.html
3. http://www.greenroofs.com

4. Castells, M. 1996. The information age: Economy, society and culture. Vol.I, The rise of the network society. Oxford: Blackwell.

Periodicals, Web Sites, etc.

1. http://www.archrecord.com/
2. http://www.worldarchitecturenews.com

Program Coordination Committee:

Course Coordinator: **Prof. assistance Dr.** Osama Abo-Eleneen

Program Coordinator **Dr.** Basma Nashaat El-Mowafy

Head of the Department: **Prof. Dr.** Ashraf Abd-Elfatah El-Mokadem

Date: 10-2020

Courses Specification

For

Doctor of Philosophy Degree in

Architecture and Urban Planning

ARC 611 Feasibility Studies and Project Development

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Contemporary Architectural Thought	**Code Symbol**: ARC 611	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course aims to define concepts, methods and indicators of feasibility study and to develop the participant's capabilities in feasibility study in different areas. By end of this course, participants should be able to raise their skills in market analysis, technical and economic analysis. The course emphasizes the importance of feasibility studies making design decisions Economics of Land, Initial costs and running costs.

2. Course Objectives

By the end of the course the students will be able to:

1. Understand principles of urban management
2. Relate and connect socio-political, socio-economic issues to urbanism Handle process and document data (infer and predict)
3. Share ideas and communicate with others - Understand infrastructure networks and services.

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Course ILOs
A. Knowledge and understanding		
A1- Theories, basics and specialized knowledge in the field of learning, as well as other related subjects. **النظريات والأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة.**	a-1-1. Develop understanding the standard specifications in buildings	a1-1-1 Recognize the Legal procedures in contracts a1-1-2 Identify preliminary and final feasibility studies of project development.
A2- Basics, methodologies and ethics of scientific research and its different tools. **أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.**	a-2-1 Recognize basic knowledge on types of contracts, and types of contracting companies.	a2-1-1 Investigate the factors affecting land evaluation and Housing markets a2-1-2 Identify design decisions economics of land, initial costs and running costs.
B. Intellectual skills		
B1- Analyze and evaluate information in the field of specialization, and relate it to solve problems and formulate theories. **تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها.**	b1-1 Demonstrate an investigatory and Analyze the factors affecting land evaluation and Housing markets	b1-1-1 Analyze housing markets b1-1-2 Combine the financial structure of urban projects and the execution timetables
B6- Plan for performance development in the field of practice . **التخطيط لتطوير الأداء في مجال التخصص**	b6-1. Plane to guide progress in his/her professional career by Studying Factors affecting land evaluation and analysis of the housing market	b6-1-1 Determine the impact of the economic feasibility studies
C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	c1-1 Express competence skills, such as Demonstrating basic organizational and project management skills.	c1-1-1 Identify the scopes of influence of urban projects.

C2- Write and evaluate technical and professional reports. **كتابة و تقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning	c2-1-1 Sketch appropriate conceptual framework.
D. General and transferrable skills		
D2- Use information technology to improve his/her professional practice. **استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية**	d2-1 Employ the information technology skills to serve his / her career development.by evaluating contracts and the economic components of urban projects.	d2-1-1 Use economic and static's tools for evaluating the projects. d-2-1-2 Use contemporary computer software in analysis.
D4- Use diferent sources to obtain knowledge and information. **استخدام المصادر المختلفة للحصول على المعلومات و المعارف**	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Introduction to the concept of feasibility studies for urban projects	9	9	-	--	a1-2-1, a2-1-2, c1-1-1, d4-1-1	1
4-9	Types of contracts	18	18	-	--	a1-2-1, a2-1-2, b 6-1-1, c1-1-1	2
10-16	Standard specifications in buildings	21	21	-	--	a1-1-1, a1-1-2, b1-1-1, c2-1-1	3
17-19	Preliminary and final feasibility studies of urban projects	9	9	-	--	A2-1-1, a2-1-2, b1-1-2, b6-1-1, c2-1-1, d2-1-1	4
17-18	Factors affecting land evaluation and analysis of the housing market	9	9	-	--	a1-2-1, a2-1-2, c1-1-1, d4-1-1	5

19-20	Factors affecting land evaluation and analysis of the housing market	9	9	-	--	a1-2-1, a2-1-2, b 6-1-1, d12-1-1	6
20-24	Financial structures of projects and execution timetables and cash flows	15	15	-	--	a1-1-1, a1-1-2, b1-1-1, d2-1-2	7
25-30	Case studies	18	18	-	--	A2-1-1, a2-1-2, b1-1-2, b6-1-1, c2-1-1, d4-1-1	8
	Total	90	90	-	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A1 (a1-2), A2 (a2-1)	B1 (b1-1), B6 (b6-1)	C1 (c1-1), C2 (c2-1)	D2 (d2-1), D5 (d4-1)

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
30%	---	**60%**	---	**5%**	---	**5%**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction to the concept of feasibility studies for urban projects	1-3
2nd	Types of contracts	4-9
3rd	Standard specifications in buildings	10-16
4th	Preliminary and final feasibility studies of urban projects	17-19
5th	Factors affecting land evaluation and analysis of the housing market	17-18

6th	Factors affecting land evaluation and analysis of the housing market	19-20
7th	Financial structures of projects and execution timetables and cash flows	20-24
8th	Case studies	25-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**
Course ILOs	**Knowledge & Understanding**							
a1-1-1 Recognize the Legal procedures in contracts	x	x	x					
a1-1-2 Identify preliminary and final feasibility studies of project development.	x	x	x					
a2-1-1 Investigate the factors affecting land evaluation and Housing markets					x	x	x	x
a2-1-2 Identify design decisions economics of land, initial costs and running costs.						x	x	
Course ILOs	**Intellectual Skills**							
b1-1-1 Analyze housing markets			x	x	x	x	x	x
b1-1-2 Combine the financial structure of urban projects and the execution timetables								
b6-1-1 Identify the impact of the economic feasibility studies					x	x	x	x
Course ILOs	**Professional Skill**							
c1-1-1 Compare the scopes of influence of urban projects.	x	x	x	x	x	x	x	x
c2-1-1 Sketch appropriate conceptual framework.								
Course ILOs	**General Skills**							
d2-1-1 Identify economic and static's tools for evaluating the projects.					x	x	x	x
d-2-1-2 Use contemporary computer software in analysis.	x							

d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .		x	x					

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-1-1	x	x											
	a1-1-2	x	x											
	a2-1-1	x	x											
	a2-1-2	x	x											
Intellectual Skills	b1-1-1	x												
	b1-1-2	x												
	b6-1-1	x	x	x										
Professional Skills	c1-1-1	x												
	c2-1-1	x	x	x					x					
General Skills	d2-1-1			x					x					x
	d2-1-2			x										x
	d4-1-1		x	x										

10. Assessment

- **Assessment Methods**

Final Written Examination	to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11- Facilities required for teaching and learning

1. Appropriate teaching class accommodations to monitor 2d and 3d modeling. These classes should include presentation board and data show
2. Library technical resources in the preparation of project research reports and oral presentation.

12 - List of references

6.1 Course notes

6.2 Essential books (text books)

- Mukherjee, Momin, and Sahadev Roy. "Feasibility studies and important aspect of project management." International Journal of Advanced Engineering and Management 2, no. 4 (2017): 98-100.
- Tim M. Havard, Argus Developer in Practice: Real Estate Development Modeling in the Real World,2013
- William O'Toole,Events Feasibility and Development.2010.

13.Program Coordination Committee:

Course Coordinator:

Head of the Department: Prof. Dr. Ashraf Abd-Elfatah El-Mokadem

Date:

ARC 634

Architecture and the Future

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Architecture and The Future	**Code Symbol**: ARC 634	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

The aims of this course are to provide students with the concept of architectural beauty and the concept of architectural beauty in the postmodern approach in architecture. Also, the course aims to study the model of disintegration, the new concept of space and time and study examples and finally applied studies for future architecture.

2. Course Objectives

By the end of the course the students will be able to:

- Demonstrate a full knowledge of Culture transformations of societies.
- Clarify the relation between the architectural concept and the philosophy of design and construction though different ages
- Study the effects of geographical, climatic, social, physical, cultural, geological and religious influences on the different

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

Field	Programme ILOs that the course contribute in achieving	Course ILOs
Knowledge&Understanding	A2- Basics, methodologies and ethics of scientific research and its different tools. **أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.**	a2-1 Recognize new advances in analysis and design methodologies in Architectural Engineering and Urban Planning and its application paradigms.
	A4- Basics and principles of quality in professional practice in the field of specialization. **مبادئ وأساسيات الجودة في الممارسة المهنية في مجال التخصص.**	a4-1 Identify Quality Assurance concepts of Architectural Engineering and Urban Planning.
Intellectual skills	B1- Analyze and evaluate information in the field of specialization, and relate it to solve problems and formulate theories. **تحليل وتقييم المعلومات في مجال التخصص والقياس عليها والاستنباط منها.**	b1-1 Define an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.
	B3- Link and integrate diverse knowledge to solve professional problems.	b3-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems.
	B7- Take professional decisions in different practical contexts. **اتخاذ القرارات المهنية في سياقات مهنية مختلفة.**	b7-1 Practice decision making capabilities in different situation when facing problems related to Architectural Engineering and Urban Planning .
Professional and practical skills	C2- Write and evaluate technical and professional reports.	c.2-1 Prepare a professional report on specialized related to Architectural Engineering and Urban Planning .
General skills	D7- Apply self evaluation and define personal educational needs.	d7-1 Prepare self evaluation and specify his educational needs related to Architectural Engineering and Urban Planning aspects.

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Introduction	9	9	--	--	a-4-1, b-7-1,	1
4-6	The social ,technological and Culture transformations	9	9	--	--	a-2-1, c-2-1.	2
7-9	New architecture trends	9	9	--	--	c-2-1, d-7-1.	3

10-13	New approaches to materials and structure	12	12	--	--	a-2-1.	4
14-16	The ethics and aesthetics of sustainability,	9	9	--	--	b-3-1, d-7-1.	5
17-18	Symbolism and semiotics in architecture	6	6	--	--	b-1-1, c-2-1.	6
19-20	Expressionism in architecture	6	6	--	--	d-7-1.	7
21- 25	Architectural design in the digital	15	15	--	--	a-2-1.	8
26-30	Discussion and presentations	15	15	--	--	a-2-1.	9
	Total	90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Program Academic Standards that the course contributes in achieving.	A-2, A-4	B-1, B-3, B-7	C-2	D-7

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
30%	---	**60%**	---	**5%**	---	**5%**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-3
2nd	The social ,technological and Culture transformations	4-6
3rd	New architecture trends	7-9
4th	New approaches to materials and structure	10-13

5th	The ethics and aesthetics of sustainability,	14-16
6th	Symbolism and semiotics in architecture	17-18
7th	Expressionism in architecture	19-20
8th	Architectural design in the digital	21- 25
9th	Discussion and presentations	26-30

8. ILOs Matrix Topics

Course Intended Learning Outcomes)ILOs(		Course topics								
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th
Knowledge & Understanding	a2-1 Recognize new advances in analysis and design methodologies in Architectural Engineering and Urban Planning and its application paradigms.	x			x					
	a4-1 Identify Quality Assurance concepts of Architectural Engineering and Urban Planning.	x				x	x	x		
Intellectual Skills	b1-1 Define an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	x	x	x		x	x	x		
	b3-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems.	x	x			x	x	x		
	b7-1 Practice decision making capabilities in different situation when facing problems related to Architectural Engineering and Urban Planning .		x		x			x		
Professional Skill	c.2-1 Prepare a professional report on specialized related to Architectural Engineering and Urban Planning .		x	x			x		x	x
General Skills	d3-1 Prepare self evaluation and specify his educational needs related to Architectural Engineering and Urban Planning aspects.		x	x					x	x

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a-3-1	x	x											
	a-3-2	x	x											
	a-4-1	x	x											
Intellectual Skills	b-1-1	x					x							
	b-3-1	x					x							
	b-7-1	x	x	x			x							
Professional Skills	c-2-1	x				x		x	x	x		x		x
General Skills	d-7-1			x		x	x		x	x	x	x		x

10. Assessment

- **Assessment Methods**

Final Written Examination — to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11. Facilities required for teaching and learning

- **Laboratory Usage:** None.

- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12. List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

1. Zheng, Zibin, Shaoan Xie, Hongning Dai, Xiangping Chen, and Huaimin Wang. "An overview of blockchain technology: Architecture, consensus, and future trends." In 2017 IEEE international congress on big data (BigData congress), pp. 557-564. IEEE, 2017.

2. AboMoslim, S & Russell, A. 2005. Evaluating Innovative Design And Construction Technologies For Super Hi-Rise Buildings On An International Basis. 6th Construction Specialty Conference, Toronto, Ontario, Canada. June 2-4, 2005.
3. Wahba, Sh. 2007. Value Of Architecture Today: Architecture Between Culture & Commerce A Reading In The Contemporary Architecture. Al-Azhar Engineering Ninth International Conference. April 12 - 14, 2007. Code A 06.
4. Mahgoub, Y. 2006 Architecture and the Expression of Cultural Identity in Kuwait, Paper presented at the 1st International Symposium on Environment, Behavior and Society, People in Place in People, February 9-11, 2006, Sydney, Australia.

Periodicals, Web Sites, etc.

1. http://www.archrecord.com/
2. http://www.worldarchitecturenews.com

13.Program Coordination Committee:

Course Coordinator:

Head of the Department: Prof. Dr. Ashraf Abd-Elfatah El-Mokadem

Date:

ARC 635

Specialized Studies

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Specialized Studies	**Code Symbol**: ARC 635	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

The main purpose of the Independent Study program is to allow students to do specific researches that do not fit within the framework of regular course offerings. It gives them the opportunity to explore in depth an area appropriate to the curriculum built around their own interests. The chosen topics should be related to any of the different fields in Architecture and Urban Planning.

2. Course Objectives

By the end of the course the students will be able to:

- Develop their knowledge in different subjects by attending numerous lectures.
- Demonstrate a full understanding of specified topics.
- Enhance their online research skills and their oral presentations.
- Work effectively in groups.

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Course ILOs
A. Knowledge and understanding		
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. **المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.**	A5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a5-1-1 Recognize the interaction between his/her research and surrounding environment. a5-1-2 Show awareness of political and cultural issues and their implications on architecture
A3- Ethical and legal principles of professional practice in the field of specialization **المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص**	a3-1 Report ethical and professional responsibility issues arising in the practice of the engineering profession.	a3-1-1 Outline new advances in analysis and methodologies of Architectural Engineering and Urban Planning.
A2- Basics, methodologies and ethics of scientific research and its different tools. **أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.**	a2-1. Recognize Basics, methodologies and ethics of scientific research and its different tools.	a2-1-1 Recognize the different styles of citation
B. Intellectual skills		
B3- Perform research and studies to add to the accumulated knowledge. **إجراء دارسات بحثية تضيف إلى المعارف.**	b3-1 Compare and evaluate published articles, Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems.	b3-1-1 Analyze specific topics using defined aspects and get conclusions
B4- Write research papers. **صياغة أوراق علمية.**	b4-1 Write scientific article paper(s) covering an appropriate Architectural Engineering and Urban Planning field.	b4-1-1 Practice different researches within groups
B6- Plan for performance development in the field of practice. **التخطيط لتطوير الأداء في مجال التخصص**	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Assess the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.

C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Apply competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering techniques, skills, and tools.
C2- Write and evaluate technical and professional reports. **كتابة و تقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized issue related to Architectural Engineering and Urban Planning.	c2-1-1 Conduct a focused review of different architecture styles
D. General and transferrable skills		
D2- Use information technology to improve his/her professional practice. **استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية**	d2-1 Employ the information technology skills to serve his / her career development.	d2-1-1 Use the information technology skills to deal with internships, fieldwork, and independent research
D4- Use different sources to obtain knowledge and information. **استخدام المصادر المختلفة للحصول على المعلومات و المعارف**	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .
D5- Lead a team in familiar professional context **العمل في فريق ، وقيادة فرق في سياقات مهنية مختلفة**	d5-1 Practice team working, and lead teams in specified professional jobs.	d5-1-1 Work in a team and Social leadership skills.
D7- Self evaluation and continuous learning. **التقييم الذاتي والتعلم المستمر.**	d7-1 Seek continuous learning through continuous education, organizing and participating in seminars, workshops, national and international conferences.	d7-1-1 Use of text- book to collect the data that he needs. d7-1-2 Acquire selected parts of the course in oral seminar using available displaying equipment.

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs.*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Introduction	12	12	--	--	a5-1-1, a5-1-2 ,c1-1-1, d4-1-1, d5-1-1	1
4-6	Lectures of developing research skills	12	12	--	--	a5-1-2, a3-1-1,c1-1-1,d4-1-1	2
7-9	Open discussions of different topics	12	12	--	--	a3-1-1,b3-1-1, b4-1-1 ,c1-1-1	3
10-13	Individual papers of chosen topics	12	12	--	--	a2-1-1 ,b4-1-1, c2-1-1, d4-1-1	4
14-16	Presentations and discussion of chosen research topics	6	6	--	--	b4-1-1, b6-1-1, c1-1-1, c2-1-1, d2-1-1, d7-1-1	5
17-18	Group works and seminars	6	6	--	--	a2-1-1, b4-1-1, b6-1-1, c1-1-1, d2-1-1, d4-1-1,d7-1-1	6
19-20	Creating seminar group meetings to discuss leading topics and questions	6	6	--	--	a2-1-1, b6-1-1, c2-1-1, d2-1-1, d7-1-1	7
21- 24	Seminar groups to present research problem and proposed solutions	6	6	--	--	a2-1-1, b4-1-1, b6-1-1, c1-1-1, c2-1-1, d2-1-1, d7-1-1	8
25-30	Discussion and final presentations	18	18	--	--	b3-1-1, c2-1-1, d4-1-1, d5-1-1, d7-1-1, d7-1-2	9
	Total	90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills

An Academic Standards that the course contributes in achieving.	A5 (a5-1), A3 (a3-1), A2(a2-1)	B3 (b3-1),B4(b4-1), B6 (b6-1)	C1 (c1-1), C2 (c2-1)	D2 (d2-1), D5 (d4-1), D6 (d5-1), D8 (d7-1)

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
30%	---	**60%**	---	**5%**	---	**5%**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-3
2nd	Lectures of developing research skills	4-6
3rd	Open discussions of different topics	7-9
4th	Individual papers of chosen topics	10-13
5th	Presentations and discussion of chosen research topics	14-16
6th	Group works and seminars	17-18
7th	Creating seminar group meetings to discuss leading topics and questions	19-20
8th	Seminar groups to present research problem and proposed solutions	21- 24
9th	Discussion and final presentations	25-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	**9th**
Course ILOs	**Knowledge & Understanding**								
a5-1-1 Recognize the interaction between his/her research and surrounding environment.	x			x					
a5-1-2 Show awareness of political and cultural issues and their implications on	x	x							

architecture									
a3-1-1 Outline new advances in analysis and methodologies of Architectural Engineering and Urban Planning.		x	x						
a2-1-1 Recognize the different styles of citation						x	x	x	
Course ILOs	**Intellectual Skills**								
b3-1-1 Analyze specific topics using defined aspects and get conclusions			x						x
b4-1-1 Practice different researches within groups			x	x	x	x		x	
b6-1-1 Assess and argue for the relevance of the findings regarding practical implications and identify the need for further knowledge within the field.					x	x	x	x	
Course ILOs	**Professional Skill**								
c1-1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering techniques, skills, and tools.	x	x	x		x	x		x	
c2-1-1 Conduct a focused review of different architecture styles				x	x		x	x	x
Course ILOs	**General Skills**								
d2-1-1 Use the information technology skills to serve his / her career development.					x	x	x	x	
d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .	x	x		x		x			x
d5-1-1 Work in a team and Social leadership skills.	x								x
d7-1-1 Use of text- book to collect the data that he needs.					x	x	x	x	x
d7-1-2 Acquire selected parts of the course in oral seminar using available displaying equipment									x

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method											
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self-learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a5-1-1		x							x				
	a5-1-2		x							x				
	a3-1-1		x						x					
	a2-1-1		x						x					
Intellectual Skills	b3-1-1	x		x										
	b4-1-1	x		x							x			
	b6-1-1	x	x	x										
Professional Skills	c1-1-1	x	x	x					x					
	c2-1-1	x	x	x					x					
General Skills	d2-1-1		x	x										
	d4-1-1		x	x										
	d5-1-1		x	x							x			
	d7-1-1		x	x						x				
	d7-1-2		x	x						x				

10. Assessment

- **Assessment Methods**

Final Written Examination — to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11. Facilities required for teaching and learning

- **Laboratory Usage:** None.

- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12. List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

1- Ewing and Otto Clemente (2013),Measuring Urban Design (Metrics for Livable Places), Island Press, USA

2- Abo Moslim, S & Russell, A. 2005. Evaluating Innovative Design and Construction Technologies for Super Hi-Rise Buildings on an International Basis. 6th Construction Specialty Conference, Toronto, Ontario, Canada. June 2-4, 2005.

3- Wahba, Sh. (2007). Value of Architecture Today: Architecture Between Culture & Commerce A Reading in The Contemporary Architecture. Al-Azhar Engineering Ninth International Conference. April 12 - 14, 2007. Code A 06.

4- Marcuse, P. (2006). "Tradition in a Global City?" Traditional Dwellings and Settlements Review, Vol. XVII Number.

Periodicals, Web Sites, etc.

3. http://www.archrecord.com/
4. http://www.worldarchitecturenews.com

13.Program Coordination Committee:

Course Coordinator: Dr. Marwa Moustafa

Head of the Department: Prof. Dr. Ashraf Abd-Elfatah El-Mokadem

Date:

ARC 642

Socio-Culture Aspects in Space Design

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Socio-Culture Aspects in Space Design	**Code Symbol**: ARC 642	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course introduces to an interdisciplinary viewpoint with an emphasis on social issues, and helps in understanding how they can be addressed in architectural terms, And Allows the students to find relationships among the various disciplines and actively investigate Senior Living related issues from diverse perspectives and Critically appraise and form considered judgments about the spatial, aesthetic, technical and social qualities of a Living Environment.

2. Course Objectives

By the end of the course the students will be able to:

- Help students research and investigate Senior Living Environments both through readings and interdisciplinary lectures including architecture and sociology, as well as with direct contact with the user and its social environment.
- Examine the ways in which space is socially constructed
- Introduce students to design standards for people with disabilities
- Understand the principles for design for the elderly

- Students learn to be socially aware and to place the user to the centre of their investigation

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Course ILOs
A. Knowledge and understanding		
A1. Theories, basics and specialized knowledge in the field of learning, as well as the subjects that affect his/her professional practice. **النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة**	a1-2 Understand the theories, basics and specialized knowledge in the field of Architectural Engineering	a1-2-1 Define a theoretical background with various styles in space design. a1-2-2 Identify different theories of space designs. a1-2-3 Define strong connection between the studies and the latest engineering topics
	a1-3 Understand the theories, basics and specialized knowledge in the field of Urban Planning.	a1-3-1 Outline the user cultural, environmental factors and their impact on the designing process. a1-3-2 State the foundation of the social and culture aspects in space designs
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. **المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.**	a5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a5-1-1 Define awareness of political and cultural issues and their implications on architecture
A2- Basics, methodologies and ethics of scientific research and its different tools. **أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.**	a2-1 Recognize new advances in analysis and design methodologies in Architectural Engineering and Urban Planning and its application paradigms.	a2-1-1 Recognize the advantages & disadvantages of urbanization and how it is related to the development of architecture styles.

A3- Ethical and legal principles of professional practice in the field of specialization **المبادئ الأخلاقية والقانونية للممارسة المهنية في مجال التخصص**	a3-1 Report ethical and professional responsibility issues arising in the practice of the engineering profession.	a3-1-1 Recognize and appreciate architectural work in space designs.
B. Intellectual skills		
B1- Analyze and evaluate the information in the field of specialization, and relate it to solve problems. **تحليل و تقييم المعلومات في مجال التخصص و القياس عليها لحل المشاكل**	b1-1 Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	b1-1-1 Assess general aspects about the circumstances affecting architecture profession & practice.
B3- Perform research and studies to add to the accumulated knowledge. **إجراء دارسات بحثية تضيف إلى المعارف.**	b3-1 Compare and evaluate published articles , Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems.	b3-1-1 Analyze, interpret and Compare the distinguishing features for the different periods.
B6- Plan for performance development in the field of practice . **التخطيط لتطوير الأداء في مجال التخصص**	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Analyze of the society, its symptoms, need and the technological culture and their reflection on the architectural spaces and design components.
C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Identify the importance of considering the social and ethical aspects in the process of architecture design over the years.
C2- Write and evaluate technical and professional reports. **كتابة و تقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning .	c2-1-1 Conduct a focused review of the relevant literature and create appropriate conceptual framework.
C3- Evaluate and development the means and tools available in the field of practice. **تقييم وتطوير الطرق والأدوات القائمة في مجال التخصص.**	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	c3-1-1 Employ comparative thinking between different architectural schools, philosophies directions and theories in space designs.

D. General and transferrable skills		
D1- Communicate effectively using all methods. **التواصل الفعال بأنواعه المختلفة**	d1-1Communicate effectively with the scientific community, research team and technocrats involved in multinational companies in the related fields to Architectural Engineering and Urban Planning.	d1-1-1 Work in a team in the research work. d1-1-2 Acquire the updated techniques of the social and culture design spaces.
D4- Use different sources to obtain knowledge and information. **استخدام المصادر المختلفة للحصول على المعلومات والمعارف**	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use references of architectural web sites and technical researches.
D5- Work as team leader as well as a member in larger teams. **العمل في فريق وقيادة فرق العمل.**	d5-1 Practice team working, and lead teams in specified professional jobs.	d5-1-1 Work in a team and Social leadership skills.
D7- Self evaluation and continuous learning. **التقييم الذاتي والتعلم المستمر.**	d7-1 Seek continuous learning through continuous education, organizing and participating in seminars, workshops, national and international conferences.	d7-1-1 Use of text- book to collect the needed data. d7-1-2 Prepare selected parts of the course in oral seminar using available displaying equipments.

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Introduction	9	9	--	--	a1-2-1, a1-2-2, a4-1-1, c1-1-1, d1-1-2, d4-1-1	1
4-6	Urban development and policies.	9	9	--	--	a1-2-1, a1-2-2, a-1-3-1, a-1-3-2, a3-1-1, c1-1-1, d1-1-2, d4-1-1	2
7-9	Determination of the elements affecting the spatial design.	9	9	--	--	a1-2-1, a1-2-2, a1-3-2, b3-1-1, c1-1-1, c2-1-1	3
10-12	New approaches to social values.	9	9	--	--	a5-1-1, a1-3-1, a1-3-2,b1-1-1, b3-1-1,	4

						c1-1-1, c2-1-1, d4-1-1	
13-15	The ethics and aesthetics of urban values.	9	9	--	--	a1-2-3, a5-1-1, a2-1-1, a3-1-1, b1-1-1, b6-1-1, c3-1-1, d1-1-1, d5-1-1	5
16-18	The importance of residential practices.	9	9	--	--	a1-2-3, a1-3-1, a1-3-2, a5-1-1, b1-1-1, b6-1-1, c3-1-1, d1-1-1, d5-1-1	6
19-20	Life style choices inherent in the spatial design of the public site.	6	6	--	--	a1-2-3, a1-3-1, a1-3-2, a5-1-1, a2-1-1, b1-1-1, b6-1-1, c1-1-1, c3-1-1, d1-1-1, d5-1-1	7
21- 24	Planning and interior design of houses.	12	12	--	--	a1-2-3, a5-1-1, a5-1-1, b1-1-1, b6-1-1, c1-1-1, c3-1-1, d1-1-1, d5-1-1	8
25-28	Spaces of public buildings in the city.	12	12	--	--	b3-1-1, c2-1-1, c3-1-1, d1-1-2, d4-1-1, d7-1-1	9
29-30	Discussion and presentations	6	6	--	--	d1-1-1, d1-1-2, d4-1-1, d5-1-1, d7-1-1,d7-1-2	10
	Total	90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A1 (a1-2) (a1-3), A5 (a5-1), A2 (a2-1, A3(a3-1)	B1 (b1-1), B3 (b3-1), B6 (b6-1)	C1 (c1-1), C2 (c2-1), C3 (c3-1)	D1 (d1-1), D5 (d4-1), D6 (d5-1), D8 (d7-1)

6. Course Subject Area:

A	B	C	D	E	F	G	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
30%	---	**60%**	---	**5%**	---	**5%**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-3
2nd	Urban development and policies.	4-6
3rd	Determination of the elements affecting the spatial design.	7-9
4th	New approaches to social values.	10-12
5th	The ethics and aesthetics of urban values.	13-15
6th	The importance of residential practices.	16-18
7th	Life style choices inherent in the spatial design of the public site.	19-20
8th	Planning and interior design of houses.	21- 24
9th	Spaces of public buildings in the city.	25-28
10th	Discussion and presentations	29-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	9th	10th
Course ILOs	**Knowledge & Understanding**									
a1-2-1 Define a theoretical background with various styles in space design.	x	x	x							
a1-2-2 Identify different theories of space designs.	x	x	x							
a1-2-3 Define strong connection between the studies and the latest engineering topics					x	x	x	x		

a1-3-1 Outline the user cultural, environmental factors and their impact on the designing process.		x		x		x	x			
a1-3-2 Understand the foundation of the social and culture aspects in space designs		x	x	x		x	x			
a2-1-1 Show awareness of political and cultural issues and their implications on architecture					x	x	x	x		
a2-1-1 Understand the advantages & disadvantages of urbanization and how it is related to the development of architecture styles.				x	x		x	x		
a3-1-1 Recognize and appreciate architectural work in space designs.	x	x			x					
Course ILOs	**Intellectual Skills**									
b1-1-1 Assess general aspects about the circumstances affecting architecture profession & practice.				x	x	x	x			
b3-1-1 Analyze, interpret and Compare the distinguishing features for the different periods.			x	x					x	
b6-1-1 Analyze of the society, its symptoms, need and the technological culture and their reflection on the architectural spaces and design components.					x	x	x	x		
Course ILOs	**Professional Skill**									
c1-1-1 Identify the importance of considering the social and ethical aspects in the process of architecture design over the years.	x	x	x	x			x	x		
c2-1-1 Conduct a focused review of the relevant literature and create appropriate conceptual framework.			x	x					x	
c3-1-1 Employ comparative thinking between different architectural schools, philosophies directions and theories in space designs.					x	x	x	x	x	
Course ILOs	**General Skills**									
d1-1-1 Work in a team in the research work.					x	x	x	x		x

d1-1-2 Acquire the updated techniques of the social and culture design spaces.	x	x							x	x
d4-1-1 Use references of architectural web sites and technical researches.	x	x		x					x	x
d5-1-1 Work in a team and Social leadership skills.					x	x	x	x		x
d7-1-1 Use of text- book to collect the needed data.									x	x
d7-1-2 Prepare selected parts of the course in oral seminar using available displaying equipments.										x

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-2-1	x	x				x							
	a1-2-2	x												
	a1-2-3	x	x				x			x				
	a1-3-1	x												
	a1-3-2	x	x											
	a5-1-1	x	x						x					
	a2-1-1	x							x					
	a3-1-1	x	x				x							
Intellectual Skills	b1-1-1	x												
	b3-1-1	x												
	b6-1-1	x	x	x										
Professional Skills	c1-1-1	x												
	c2-1-1	x	x	x										
	c3-1-1	x	x	x										
General Skills	d1-1-1			x							x			
	d1-1-2			x					x					
	d4-1-1			x		x	x							
	d5-1-1		x	x						x	x	x		
	d7-1-1		x	x							x			

	d7-1-2		x	x										

10.Assessment

- **Assessment Methods**

Final Written Examination	to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11.Facilities required for teaching and learning

- **Laboratory Usage:** None.

- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12.List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

1. Mohammedani, R. M. 2018, *SPACE STANDARDS AND SOCIO-CULTURAL ASPECTS OF HOUSING DESIGN* (Doctoral dissertation, Sudan University of Science and Technology).
2. B. Perkins, D. Hoglund, 2013, Building type basics for senior living.
3. J. W. Anderzhon, D. Hughes, Dr. Stephen Judd & Dr. E. Kiyota, 2012, Design for Aging: International Case Studies of Building and Program.
4. Victor Regnier, 2002, Design for Assisted Living: Guidelines for Housing the Physically and Mentally Frail.

13.Program Coordination Committee:

Course Coordinator:

Head of the Department: Prof. Dr. Ashraf Abd-Elfatah El-Mokadem

Date

UPL 615

Planning Residential Areas

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Planning Residential Areas	**Code Symbol**: UPL 615	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course investigates methods of planning residential areas of all types and levels, social and economic dimensions of the community, use of data and information and survey results in the development of urban plans, examples of existing residential areas, study of projects of new residential areas.

2. Course Objectives

By the end of the course the students will be able to:

1. Identify the elements of the urbanplanning.
2. Understand Urban planning standards and stages.
3. Identify urban, social, political, economic and environmental problems.
4. Compare between different urban planning projects and environmental issues.
5. Design and construct alternative solutions to urban planning project.

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Course ILOs
A. Knowledge and understanding		
A1. Theories, basics and specialized knowledge in the field of learning, as well as the subjects that affect his/her professional practice. **النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة**	a1-2 Understand the theories, basics and specialized knowledge in the field of Architectural Engineering .	a1-2-1 List some of the contemporary theories of architecture. a1-2-2 Identify different theories of architecture. a1-2-3 Investigate the differences between the Induction and Deduction inference methodology a1-2-4 Investigate short essays in certain topics of the course. a1-2-5 Outline the distinguishing features for the different periods. a1-2-6 Investigate theoretical concepts.
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. **المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.**	a5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a5-1-1 Recognize the interaction between his/her research and surrounding environment. a2-1-2 Show awareness of political and cultural issues and their implications on architecture
A2- Basics, methodologies and ethics of scientific research and its different tools. **أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.**	a2-1 Recognize Basics and ethics of scientific research.	a2-1-1 Recognize the different styles of citation
B. Intellectual skills		
B3- Link and integrate diverse knowledge to solve professional problems. **الربط بين المعارف المختلفة لحل المشاكل المهنية**	b3-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems.	b3-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.
B6- Plan for performance development in the field of	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Assess and argue for the relevance of the

practice . **التخطيط لتطوير الأداء في مجال التخصص**		findings with regard to practical implications, and identify the need for further knowledge within the field.
C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Illustrate competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering techniques, skills, and tools.
C2- Write and evaluate technical and professional reports. **كتابة و تقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning .	c2-1-1 Conduct a focused review of the relevant literature and create appropriate conceptual framework.
C3- Evaluate means and tools available in the field of practice. **تقييم الطرق و الأدوات القائمة في مجال التخصص**	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	c3-1-1 Apply comparative thinking between different architectural schools, philosophies directions and theories.
D. General and transferrable skills		
D4- Use different sources to obtain knowledge and information. **استخدام المصادر المختلفة للحصول على المعلومات والمعارف**	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .
D5- Work as team leader as well as a member in larger teams. **العمل في فريق وقيادة فرق العمل.**	d5-1 Practice team working, and lead teams in specified professional jobs.	d5-1-1 Work in a team and Social leadership skills.
D7- Self evaluation and continuous learning. **التقييم الذاتي والتعلم المستمر.**	d7-1 Seek continuous learning through continuous education, organizing and participating in seminars, workshops, national and international conferences.	d7-1-1 Use of text- book to collect the data that he needs. d7-1-2 Prepare selected parts of the course in oral seminar using available displaying equipments.

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Introduction	12	12	--	--	a1-2-1, a1-2-2, a5-1-1, c1-1-1, d5-1-1, d5-1-1	1
4-7	-Introduction to Urban design key concepts and definitions -Urban Planning Science	12	12	--	--	a1-2-1, a1-2-2, a5-1-2, c1-1-1	2
8-10	-Basic concepts of urban planning	12	12	--	--	a1-2-1, a1-2-2, c1-1-1	3
11-15	-Types and levels of urban planning (national, regional, local)	12	12	--	--	c1-1-1	4
16-19	-Stages of Urban Planning (General Planning - Urban Design - Project Planning)	6	6	--	--	a1-2-3, a1-2-6, a1-2-7, a2-1-1 , b6-1-1, c1-1-1, c3-1-1, d7-1-1	5
20-23	-Urban planning standards	6	6	--	--	a1-2-3, a1-2-4, a1-2-5, a1-2-6, a2-1-1, b1-1-1, b6-1-1, c1-1-1, c3-1-1, , d7-1-1	6
24-26	-Planning of different cities in terms of size, shape and location	6	6	--	--	a1-2-3, a1-2-4, a1-2-5, a1-2-6, a2-1-1, b1-1-1, b6-1-1, c1-1-1, c3-1-1, , d7-1-1	7
25- 27	-Characteristics and systems of urban planning	6	6	--	--	a1-2-3, a1-2-6, a2-1-1, b1-1-1, b6-1-1, c1-1-1, c3-1-1, d7-1-1	8
28-30	Discussion and presentations	18	18	--	--	a5-1-1, a2-1-1, b3-1-1, c2-1-1, d4-1-1, d5-1-1, d7-1-1, d7-1-2	9
	Total	90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A1 (a1-2), A5 (a5-1), A2 (a2-1)	B3 (b3-1), B6 (b6-1)	C1 (c1-1), C2 (c2-1), C3 (c3-1)	D5 (d4-1), D6 (d5-1), D8 (d7-1)

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
20%	---	10%	---	20%	50%		100%

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-3
2nd	-Introduction to Urban design key concepts and definitions -Urban Planning Science	4-7
3rd	-Basic concepts of urban planning Types and levels of urban planning (national, regional, local)	8-10 11-15
4th	-Stages of Urban Planning (General Planning - Urban Design - Project Planning)	16-19
5th	-Stages of Urban Planning (General Planning - Urban Design - Project Planning)	20-23
6th	-Urban planning standards	
7th	Planning of different cities in terms of size, shape and location	24-26
8th	-Urban planning standards	25- 27
9th	Discussion and presentations	28- 30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	9th
Course ILOs	**Knowledge & Understanding**								
a1-2-1 List some of the contemporary theories of architecture.	x	x	x						

a1-2-2 Identify different theories of architecture.	x	x	x						
a1-2-3 Investigate the differences between the Induction and Deduction inference					x	x	x	x	
a1-2-4 Investigate short essays in certain topics of the course.						x	x		
a1-2-5 Outline the distinguishing features for the different periods.						x	x		
a1-2-6 Investigate theoretical concepts.					x	x	x	x	
a5-1-1 Recognize the interaction between his/her research and surrounding environment.	x								x
a5-1-2 Show awareness of political and cultural issues and their implications on architecture		x							
Course ILOs	**Intellectual Skills**								
b3-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.									x
b6-1-1 Assess and argue for the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.					x	x	x	x	
Course ILOs	**Professional Skill**								
c1-1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering techniques, skills, and tools.	x	x	x	x	x	x	x	x	
c2-1-1 Conduct a focused review of the relevant literature and create appropriate conceptual framework,									x
c3-1-1 Comparative thinking between different architectural schools, philosophies directions and theories.					x	x	x	x	
Course ILOs	**General Skills**								
d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about	x								x

Architectural Engineering and Urban Planning .									
d5-1-1 Work in a team and Social leadership skills.	x								x
d7-1-1 Use of text- book to collect the data that he needs.					x	x	x	x	x
d7-1-2 Deliver selected parts of the course in oral seminar using available displaying equipments.									x

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self-learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-2-1	x	x											
	a1-2-2	x	x											
	a1-2-3	x	x											
	a1-2-4	x	x											
	a1-2-5	x	x											
	a1-2-6	x	x											
	a2-1-1		x	x										
	a5-1-1		x	x										
	a5-1-2		x	x										
Intellectual Skills	b3-1-1	x								x				
	b6-1-1	x	x	x					x					
Professional Skills	c1-1-1	x												
	c2-1-1	x	x	x					x					
	c3-1-1	x	x	x										
General Skills	d4-1-1			x					x	x				
	d5-1-1		x	x										
	d7-1-1		x	x					x					
	d7-1-2		x	x										

10. Assessment

- **Assessment Methods**

Final Written Examination	to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11. Facilities required for teaching and learning

- **Laboratory Usage:** None.

- **Library Usage:**
  Students should be encouraged to use library technical resources in the preparation of laboratory reports and oral presentation .At least one oral presentation should involve a significant component of library research to encourage this component of study.

12. List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

- Næss, Petter. "Urban planning: residential location and compensatory behaviour in three Scandinavian cities." In Rethinking Climate and Energy Policies, pp. 181-207. Springer, Cham, 2016.
- Robert W. Miller, Richard J. Hauer and Les P. Werner, Urban forestry, 2015.
- Hugh Barton and Catherine Tsourou, Healthy Urban Planning, 2013.
- Peter Hall and Mark Tewdwr-Jones, Urban and Regional Planning, 2010.
- Cochrane and Allan, Understanding urban policy: A critical approach. Oxford, UK: Blackwell,2007.
- Ewing and Otto Clemente (2013),Measuring Urban Design (Metrics for Livable Places), Island Press, USA

Periodicals, Web Sites, etc.

5. http://www.archrecord.com/
6. http://www.worldarchitecturenews.com

13. Program Coordination Committee:

Course Coordinator:

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Signature :

Date:

UPL 616

Managing of Urban Development

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Managing of Urban Development	**Code Symbol**: UPL 616	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course aims to define the process of managing urban development and dealing with each other, talking about urban growth and challenges, global management methods, different applications, maximize the use and adaptation in light of the special circumstances of the developing world (Management concept and functions, Urban development management, Urban management functions, Urban management methods, Implementation and financing mechanisms, Methods of participation in development management, Resource management, Land and infrastructure management, Housing supply and services).

2. Course Objectives

By the end of the course the students will be able to:

- Demonstrate a full knowledge of the process of managing urban development concepts and functions.
- Clarify the relation between urban growth and challenges, global management methods, different applications, maximize the use and adaptation in light of the special circumstances of the developing world.
- Compare , Urban management methods

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Course ILOs
A. Knowledge and understanding		
A1. Theories, basics and specialized knowledge in the field of learning, as well as the subjects that affect his/her professional practice. **النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة**	a1-2 Understand the theories, basics and specialized knowledge in the field of Architectural Engineering .	a1-2-1 List some of urban development projects. a1-2-2 Identify different urban development projects. a1-2-3 Describe Polices and Ingredients of urban development and urban management in Egypt present and future. a1-2-4 Prepare short essays in certain topics of the course. a1-2-5 Investigate the importance of considering the social and ethical aspects in the process of urban development over the years.
A2- Basics, methodologies and ethics of scientific research and its different tools. **وأخلاقيات ومنهجيات أساسيات وأدواته المختلفة. العلمي البحث**	a2-1 Recognize Basics and ethics of scientific research.	a2-1-1 Recognize the different styles of citation
A3- Ethical and legal principles of professional practice in the field of specialization **والقانونية الأخلاقية المبادئ مجال في المهنية للممارسة التخصص**	a3-1 Recognize ethical and professional responsibility issues arising in the practice of the engineering profession.	a3-1-1 Estimate sustainable urban development managing approaches
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. **المعارف المتعلقة بآثار ممارسته**	a5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a5-1-1 Recognize the interaction between his/her research and surrounding environment. a2-1-2 Show awareness of political and cultural issues and their implications on urban development projects

المهنية على البيئة وطرق تنمية البيئة وصيانتها.		
B. Intellectual skills		
B1- Analyze and evaluate the information in the field of specialization, and relate it to solve problems. **تحليل و تقييم المعلومات في مجال التخصص و القياس عليها لحل المشاكل**	b1-1 Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning problems.
B3- Link and integrate diverse knowledge to solve professional problems. **الربط بين المعارف المختلفة لحل المشاكل المهنية**	b3-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems.	b3-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.
B6- Plan for performance development in the field of practice . **التخطيط لتطوير الأداء في مجال التخصص**	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Assess and argue for the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.
B7- Take professional decisions in different professional practical contexts. **سياقات في المهنية القرارات اتخاذ متنوعة مهنية**	b7-1 Acquire decision making capabilities in different situation when facing problems related to Architectural Engineering and Urban Planning .	B7-1-1 Assess the relation between urban growth and challenges, global management methods, different applications.
C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Employ competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering techniques, skills, and tools.

C2- Write and evaluate technical and professional reports. **كتابة و تقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning .	c2-1-1 Prepare a focused review of the relevant literature and create appropriate conceptual framework.
C3- Evaluate means and tools available in the field of practice. **تقييم الطرق و الأدوات القائمة في مجال التخصص**	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	c3-1-1 Apply comparative thinking between the use and adaptation in light of the special circumstances of the developing world.
D. General and transferrable skills		
D2- Use information technology to improve his/her professional practice. **استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية**	d2-1 Employ the information technology skills to serve his / her career development.	d2-2-1 Use the information technology skills to serve his / her career development.
D4- Use different sources to obtain knowledge and information. **استخدام المصادر المختلفة للحصول على المعلومات والمعارف**	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .
D7- Self evaluation and continuous learning. **التقييم الذاتي والتعلم المستمر.**	d7-1 Seek continuous learning through continuous education, organizing and participating in seminars, workshops, national and international conferences.	d7-1-1 Use of text- book to collect the data that he needs. d8-1-2 Prepare selected parts of the course in oral seminar using available displaying equipment.

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	History of city management	3	3	--	--	a1-2,a5-1,a3-1,c1-1	1
4-6	Types of municipalities	3	3	--	--	a4-1,a6-1,c3-1,d7-1	2
7-9	Structure of responsibilities	3	3	--	--	b4-1,b6-1,c3-1,d7-1	3
10-13	The centralized model of city management	3	3	--	--	b4-1,b7-1,c3-1,d7-1, d5-1	4

14-16	The decentralized model of city management	3	3	--	--	1,a3-1,c1-1,b4-1,b7-1,c3-1,d7-1, d4-1	5
17-18	The role of the private and public sectors in city management	3	3	--	--	a1-2,a5-1,a3-1,c1-1,b4-1,b7-1,c3-1,d7-1, d4-1	6
19-20	Funding sources.	3	3	--	--	a1-2,a5-1,a3-1,c1-1,b4-1,b7-1,c3-1,d7-1, d4-1,d7-1	7
21-25	Sharing between public and private sectors	3	3	--	--	c1-1,b4-1,b7-1,c3-1,d4-1, d4-1,d7-1	8
26-30	Long-term plans, Five-year plans, Budgets programs.	3	3	--	--	a1-2,a5-1,a3-1,c1-1,b4-1,b7-1,c3-1,d7-1, d4-1	9
31	Final exam						
	Total	90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Program Academic Standards that the course contributes in achieving.	A1 (a1-2), A5(a5-1), A3 (a3-1), A2(a2-1)	B1 (b1-1), B3 (b3-1), B6 (b6-1), B7(b7-1)	C1 (c1-1), C2 (c2-1), C3 (c3-1)	D2 (d2-1), D4 (d4-1), D7 (d7-1)

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
30%	---	**60%**	---	---	---	**10%**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	History of city management	1-3

2nd	Types of municipalities	4-6
3rd	Structure of responsibilities	7-9
4th	The centralized model of city management	10-13
5th	The decentralized model of city management	14-16
6th	The role of the private and public sectors in city management	17-18
7th	Funding sources.	19-20
8th	Sharing between public and private sectors	21-25
9th	Long-term plans, Five-year plans, Budgets programs.	26-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	**9th**
Course ILOs	**Knowledge & Understanding**								
a1-2-1 List some of urban development projects.	x	x	x		x	x			x
a1-2-2 Identify different urban development projects.		x			x		x	x	
a1-2-3 Describe Polices and Ingredients of urban development and urban management in Egypt present and future..	x	x	x	x		x			x
a1-2-4 Prepare short essays in certain topics of the course.	x			x		x	x	x	
a1-2-5 Investigate the importance of considering the social and ethical aspects in the process of urban development over the years	x	x	x		x	x	x		x
a2-1-1 Recognize the different styles of citation	x		x	x	x			x	
a3-1-1 Estimate sustainable urban development managing approaches	x	x	x	x		x		x	x
a5-1-1 Recognize the interaction between his/her research and surrounding environment.		x		x			x		x
a2-1-2 Show awareness of political and cultural issues and their implications on	x	x		x	x	x		x	x

urban development projects									
Course ILOs	**Intellectual Skills**								
b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning problems.	x	x		x	x	x			
b3-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.	x		x	x	x		x	x	
b6-1-1 Assess and argue for the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.	x	x		x	x	x	x		x
b7-1-1 Assess the relation between urban growth and challenges, global management methods, different applications.	x	x	x	x	x	x			x
Course ILOs	**Professional Skill**								
c1-1-1 Employ competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering techniques, skills, and tools.	x	x	x		x	x			x
c2-1-1 Prepare a focused review of the relevant literature and create appropriate conceptual framework.	x		x	x	x		x		
c3-1-1 Apply comparative thinking between the use and adaptation in light of the special circumstances of the developing world.	x	x	x	x		x	x		x
Course ILOs	**General Skills**								
d2-2-1 Use the information technology skills to serve his / her career development.	x		x	x	x		x		x
d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban	x	x		x	x		x		

Planning .									
d7-1-1 Use of text- book to collect the data that he needs.	x		x		x				x
d8-1-2 Prepare selected parts of the course in oral seminar using available displaying equipment.	x	x	x	x	x	x	x		x

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self-learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-2-1	x		x			x							
	a1-2-2	x		x			x							
	a1-2-3	x					x							
	a1-2-4			x										
	a1-2-5	x		x			x							
	a5-1-2	x				x	x							
	a5-1-1			x		x								
	a3-1-1	x		x		x	x							
	a2-1-1	x		x										
Intellectual Skills	b1-1-1	x		x		x	x			x				
	b3-1-1	x		x					x	x				
	b6-1-1					x	x		x	x				
	b7-1-1	x		x		x	x		x					
Professional Skills	c1-1-1	x								x				
	c2-1-1	x		x			x		x	x				
	c3-1-1	x		x			x			x				
General Skills	d2-1-1			x			x		x					
	d4-1-1	x		x			x		x	x				
	d7-1-1	x					x		x	x				
	d7-1-2	x		x			x		x	x				

10. Assessment

- **Assessment Methods**

Final Written Examination	to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11. Facilities required for teaching and learning

- Lecture/ Seminar rooms equipped with dark curtains, projector, and projection board, blackground, advanced PC and data show, and exihibition rooms.
- **Laboratory Usage:** None.
- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12. List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

- Stren, Richard E., ed. *African cities in crisis: managing rapid urban growth*. Routledge, 2019.
- D. Taylor, Emmanuel Torquebiau, Natural Resource Management and Local Development,2010.
- Ed Blakely ,My Storm: Managing the Recovery of New Orleans in the Wake of Katrina,2012.
- Ed Blakely ,Dialogues in Urban Planning: Towards Sustainable Regions,2008.
- Ed Blakely ,Managing Urban Disaster Recovery: Policy, Planning, Concepts and Cases,2012.
- Marcel Tanner, Urban Health in Developing Countries: Progress and Prospects, 2014.
- John Abbott, Sharing the City: Community Participation in Urban Management,2013.
- Stijn Oosterlynck, Jef Van den Broeck, Louis Albrechts, Frank Moulaert, Ann Verhetsel, Strategic Spatial Projects: Catalysts for Change, 2010.

Periodicals, Web Sites, etc.

https://unhabitat.org/collection/urban-development-and-management/
https://www.environmentalscience.org/career/urban-planner

13. Program Coordination Committee:

Course Coordinator:

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Signature :

Date:

UPL 620

Comparative Analysis of Urban Applications

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Comparative Analysis of Urban Applications	**Code Symbol**: UPL 620	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course investigates the methods used in the treatment of urban projects at both the local and global levels, projects in similar countries in their social, economic and environmental conditions with the conditions in the Arab Republic of Egypt, conducting analytical studies, applying evaluation methods and reaching results based on sound foundations.

2. Course Objectives

By the end of the course the students will be able to:

- Control the software precisely.
- Utilize it to make drawings from scratch.
- Edit existing GIS models and print out drawings.

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards	Program ILOs	Course ILOs

(ARS)		
A. Knowledge and understanding		
A2- Mutual relation between professional aspects of professional practice and its effects on the Environment. **التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة**	a2-1Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a2-1-1 Recognize the interaction between his/her research and surrounding environment. a2-1-2 Show awareness of political and cultural issues and their implications on architecture
A5- Basics and principles of quality in professional practice in the field of specialization. **في الجودة أساسيات و مبادئ مجال في المهنية الممارسة التخصص**	a5-1 Explain Quality Assurance concepts of Architectural Engineering and Urban Planning.	a5-1-1 Recognize the interaction between his/her research and surrounding environment. a5-1-2 Show awareness of political and cultural issues and their implications on architecture
A6- Basics and ethics of scientific research **أساسيات وأخلاقيات البحث العلمي**	a6-1 Recognize Basics and ethics of scientific research	A6-1-1 Identify new advances in analysis and methodologies of Architectural Engineering and Urban Planning.
B. Intellectual skills		
B4- Conduct a research study and/or writing systematic scientific study about Research problem. **كتابة أو /و بحثية دراسة إجراء مشكلة حول منهجية علمية دراسة بحثية**	b4-1 Write an research plain to conduct applied research.	b4-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning problems.
B6- Plan for performance development in the field of practice . **مجال في الأداء لتطوير التخطيط التخصص**	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.
B7- Take professional decisions in different professional practical contexts. **سياقات في المهنية القرارات اتخاذ متنوعة مهنية**	b7-1 Acquire decision making capabilities in different situation when facing problems related to Architectural Engineering and Urban Planning .	b7-1-1 Acquire the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.
C. Professional and practical skills		
C1- Master the basic as	c1-1 Express competence	c1-1-1 Illustrate

well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering techniques, skills, and tools.
C2- Write and evaluate technical and professional reports. **كتابة و تقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning .	c2-1-1 Prepare a focused review of the relevant literature and create appropriate conceptual framework.
C3- Evaluate means and tools available in the field of practice. **تقييم الطرق و الأدوات القائمة في مجال التخصص**	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	c3-1-1 Utilize comparative thinking between different architectural schools, philosophies directions and theories.
D. General and transferrable skills		
D2- Use information technology to improve his/her professional practice. **استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية**	d2-1 Employ the information technology skills to serve his / her career development.	d2-2-1 Use the information technology skills to serve his / her career development.

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Program introduction.	12	12	--	--	a2-1-1, a4-1-1 , c1-1-1, c3-1-1,	1
4-7	Program installation and GUI identification.	12	12	--	--	a2-1-2 , a5-1-1, c3-1-1	2
8-10	Using CAD programs applications and commands for 2D DWGs.	12	12	--	--	a1-2-1, a1-2-2, b1-1-1, c1-1-1	3
11-15	Follow up for GISprogram utilization to make new drawings.	12	12	--	--	b7-1-1, c1-1-1	4
16-19	Control the software precisely and utilize it to make drawings from scratch.	12	12	--	--	b4-1-1, b6-1-1	5
20-23	Recognizing and using commands for modifying existing CAD drawings.	12	12	--	--	c1-1-1, c3-1-1,	6
24-30	Creating photos and printing drawings.	12	12	--	--	a1-2-2, b1-1-1, c1-1-1	7

	Total	90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A2 (a2-1), A5 (a5-1), A4(a4-1)	B4 (b4-1), B6 (b6-1), B7 (b7-1)	C1 (c1-1), C2 (c2-1), C3 (c3-1)	D2 (d2-1),

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
---	---	10%	10%	30%	50%		100%

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-3
2nd	Program identification.	4-7
3rd	Utilizing GIS commands and its applications.	8-10
4th	Follow up for GISprogram utilization to make new drawings.	11-15
5th	Editing existing GISmodels.	16-19
6th	Possible Output formats of the program.	20-23
7th	Expressionism in architecture	24-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	9th
Course ILOs	**Knowledge & Understanding**								
a2-1-1 Recognize the interaction between his/her research and surrounding environment.	x	x	x						

a2-1-2 Show awareness of political and cultural issues and their implications on architecture									
a5-1-1 Recognize the interaction between his/her research and surrounding environment.	x	x	x						
a5-1-2 Show awareness of political and cultural issues and their implications on architecture	x	x	x						
A6-1-1 Identify new advances in analysis and methodologies of Architectural Engineering and Urban Planning.					x	x	x	x	
Course ILOs	**Intellectual Skills**								
b4-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning problems.			x	x	x	x	x	x	
b6-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.									x
b7-1-1 Acquire the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.					x	x	x	x	
Course ILOs	**Professional Skill**								
c1-1-1 Illustrate competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering techniques, skills, and tools.	x	x	x	x	x	x	x	x	
c2-1-1 Prepare a focused review of the relevant literature and create appropriate conceptual framework,									x
c3-1-1 Utilize comparative thinking between different architectural schools, philosophies directions and theories.					x	x	x	x	
Course ILOs	**General Skills**								

d2-2-1 Use the information technology skills to serve his / her career development.					x	x	x	x		

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & Understanding	a2-1-1	x	x											
	a2-1-21		x	x										
	a5-1-1		x	x										
	a5-1-2		x	x										
	a6-1-1		x	x										
Intellectual Skills	b4-1-1	x												
	b6-1-1	x												
	b7-1-1	x	x	x										
Professional Skills	c1-1-1	x								x				
	c2-1-1	x	x	x					x	x				
	c3-1-1	x	x	x					x					
General Skills	d2-1-1			x					x					

10. Assessment

- **Assessment Methods**

Final Written Examination — to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11. Facilities required for teaching and learning

- **Laboratory Usage:** None.

- **Library Usage:**
  -Students are expected to practice some exercises on GIS commands applications. Besides, they should be subjected to consecutive quizzes testing

their ability of utilizing the program to create drawings from scratch or modifying existing ones.
-Students should be encouraged to use library technical resources to be prepared for the laboratory exercises and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12. List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

1. Goodfellow, Tom. "Seeing political settlements through the city: A framework for comparative analysis of urban transformation." *Development and Change* 49, no. 1 (2018): 199-222.
2. Wahba, Sh. 2007. Value Of Architecture Today: Architecture Between Culture & Commerce A Reading In The Contemporary Architecture. Al-Azhar Engineering Ninth International Conference. April 12 - 14, 2007. Code A 06.
3. Robinson D., Computer Modelling for Sustainable Urban Design: Physical Principles, Methods and Applications,2012.

Periodicals, Web Sites, etc.

7. http://www.archrecord.com/
8. http://www.worldarchitecturenews.com

13. Program Coordination Committee:

Course Coordinator:

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Signature :

Date:

UPL 621

Statistics and Urban Demographic Studies

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Statistics and Urban Demographic Studies	**Code Symbol**: UPL 621	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course investigates the concepts of statistical processes, calculations of mean deviation, correlation, random distribution, natural distribution and population predictions, in addition to determining densities and congestion areas.

2. Course Objectives

By the end of the course the students will be able to:

- Understand the principles of demographic studies
- Identify data types, data sources and data collection techniques
- Recognize the importance of socio-economic and cultural studies in urban planning and urban design projects
- Understand the significance of different demographic studies (population growth, education, illiteracy… etc.)

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards	Program ILOs	Course ILOs

(ARS)		
A. Knowledge and understanding		
A1. Theories, basics and specialized knowledge in the field of learning, as well as the subjects that affect his/her professional practice. **النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة**	a1-3 Understand the theories, basics and specialized knowledge in the field of Urban Planning.	a1-3-1 Outline the principles of social and demographic studies. a1-3-2 Recognize the importance of socio-economic and cultural studies in urban planning and urban design projects
B. Intellectual skills		
B3- Link and integrate diverse knowledge to solve professional problems. **الربط بين المعارف المختلفة لحل المشاكل المهنية**	b3-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems.	b3-1-1 Analyze demographic mobility growth and trends in different areas
B5- Assess risks in professional practice in the field of specialization, **الممارسات في المخاطر تقييم التخصص مجال في المهنية**	b5-1 Evaluate pros and cons of given methodologies for Architectural Engineering and Urban Planning .	b5-1-1 Evaluate and assess demographic and economic growth, trends and policies.
B7- Take professional decisions in different professional practical contexts. **سياقات في المهنية القرارات اتخاذ متنوعة مهنية**	b7-1 Acquire decision making capabilities in different situation when facing problems related to Architectural Engineering and Urban Planning .	b7-1-1 Identify socio-economic and cultural patterns to urban form
C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Analyze and use data by different techniques
D. General and transferrable skills		
D2- Use information technology to improve his/her professional practice. **استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية**	d2-1 Employ the information technology skills to serve his / her career development.	d2-1-1 Prepare projects and data using different techniques (computer, manual… etc.)
D5- Work as team leader	d5-1 Practice team working,	d5-1-1 Work in teams .

as well as a member in larger teams. العمل في فريق وقيادة فرق العمل.	and lead teams in specified professional jobs.	

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Introduction	12	12	--	--	a1-3-1, a1-3-2	1
4-6	Principles of social and demographic studies	12	12	--	--	a1-3-1, a1-3-2	2
7-9	Data Types, Data sources and Data collection techniques	12	12	--	--	b3-1-1, c1-1-1, d5-1-1	3
10-13	Different Applications(Job classification, income/ Education and economic level, Marital status)	12	12	--	--	b3-1-1, b5-1-1, c1-1-1, d2-1-1	4
14-16	Environment and behavior studies and cross cultural studies	6	6	--	--	b3-1-1, b7-1-1, c1-1-1	5
17-18	Social & urban changes	6	6	--	--	b3-1-1, b5-1-1, b7-1-1, c1-1-1, d2-1-1	6
19-20	Spatial location & urban growth	6	6	--	--	b3-1-1, b5-1-1, b7-1-1, c1-1-1, d2-1-1	7
21- 24	Population trends and growth rates	6	6	--	--	b3-1-1, b5-1-1, b7-1-1, c1-1-1	8
25-30	Discussion and presentations	18	18	--	--	a1-3-2, b3-1-1, b5-1-1, b7-1-1, c1-1-1, d2-1-1, d5-1-1	9
	Total	90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A1 (a1-3)	B3 (b3-1), B5 (b5-1), B7 (b7-1)	C1 (c1-1)	D2 (d2-1), D5 (d5-1),

6. Course Subject Area:

A	B	C	D	E	F	G	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
15%	**50%**	**---**	**---**	**20%**	**15%**	**---**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-3
2nd	Principles of social and demographic studies	4-6
3rd	Data Types, Data sources and Data collection techniques	7-9
4th	Different Applications(Job classification, income/ Education and economic level, Marital status)	10-13
5th	Environment and behavior studies and cross cultural studies	14-16
6th	Social & urban changes	17-18
7th	Spatial location & urban growth	19-20
8th	Population trends and growth rates	21- 24
9th	Discussion and presentations	25-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	9th
Course ILOs	**Knowledge & Understanding**								
a1-3-1 Understand the principles of social and demographic studies.	x	x							
a1-3-2 Recognize the importance of socio-economic and cultural studies in urban planning and urban design projects	x	x							x
Course ILOs	**Intellectual Skills**								
b3-1-1 Analyze demographic mobility growth and trends in different areas			x	x	x	x	x	x	x
b5-1-1 Evaluate and assess demographic and economic growth,				x		x	x	x	x

trends and policies.									
b7-1-1 Identify socio-economic and cultural patterns to urban form					x	x	x	x	x
Course ILOs	**Professional Skill**								
c1-1-1 Analyze and use data by different techniques			x	x	x	x	x	x	x
Course ILOs	**General Skills**								
d2-1-1 Prepare projects and data using different techniques (computer, manual… etc.)				x		x	x		x
d5-1-1 Work in teams .			x						x

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-3-1	x												
	a1-3-2	x	x											
	b3-1-1	x				x							x	
	b5-1-1	x				x							x	
	b7-1-1	x				x							x	
Professional Skills	c1-1-1					x			x				x	
General Skills	d2-1-1		x						x					
	d5-1-1		x			x			x					

10. Assessment

- **Assessment Methods**

Final Written Examination — to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11. Facilities required for teaching and learning

- **Laboratory Usage:** None.

- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12. List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

1- Bramanti, L., & Edmunds, P. J. 2016. Density-associated recruitment mediates coral population dynamics on a coral reef. Coral Reefs, 35(2), 543-553.
2- Lundquist, J., 2014, "Demography: The Study of Human Population", USA: Waveland Press.
3- Preston, S., 2000, "Demography: Measuring and Modeling Population Processes", UK: Wiley-Blackwell.
4- Sharma, R., 2004, "Demography and Population Problems", India: Atlantic.

Periodicals, Web Sites, etc.

9. http://www.capmas.gov.eg
10. http://www.gopp.gov.eg

13. Program Coordination Committee:

Course Coordinator:

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Signature :

Date:

UPL 622

Urban Design and Planning in Developing Countries

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Urban Design and Planning in Developing Countries	**Code Symbol**: UPL 622	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course states urban design concept and planning in developing countries by significant practices, buildings, theories, and criticisms to allow the students to be familiar with the fundamental elements and essential issues of Urban Design. Besides allow the student to apply contemporary tools and approaches to problems related to the built environment, present projects and data using different techniques (computer, manual…etc)

2. Course Objectives

By the end of the course the students will be able to:

- Enhance their perception of factors in Urban spaces.
- Gain practice in the basic skills of Urban design analysis.
- Gain an appreciation of both the process and product of the design of the built environment.
- Have a practical experience in re-designing public spaces.

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following

Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Course ILOs
A. Knowledge and understanding		
A1. Theories, basics and specialized knowledge in the field of learning, as well as the subjects that affect his/her professional practice. **المتعلقة الأساسيات و النظريات ذات المجالات في وكذا التعلم بمجال العلاقة**	a-1-1. Understand and work with accordance to laws and regulations governing urban planning.	a1-1-1 List some of the urban planning theories. a1-1-2 Prepare short essays in certain topics of the course.
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. **المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.**	a-5-1 Recognize current trends in urban planning methods and examples worldwide.	a5-1-1 Recognize the interaction between his/her research and surrounding environment. a5-1-2 Show awareness of political and cultural issues and their implications on urban design
B. Intellectual skills		
B1- Analyze and evaluate the information in the field of specialization, and relate it to solve problems. **تحليل و تقييم المعلومات في مجال التخصص و القياس عليها لحل المشاكل**	b1-1 Assess the site analysis studies that could affect an Urban &Environmental Planning.	b1-1-1 Analyze site properties from the environmental point of view b1-1-2 .Identify the concepts of sustainable development
B6- Plan for performance development in the field of practice . **التخطيط لتطوير الأداء في مجال التخصص**	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Practice problem solving skills.
C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و**	c1-1 Integrate community design parameters into urban planning projects.	c1-1-1 Use competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Urban Planning, using latest

الحديثة في مجال التخصص		engineering techniques, skills, and tools.
C2- Write and evaluate technical and professional reports. **كتابة و تقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized related to Urban Planning .	c2-1-1 Create appropriate conceptual framework.
D. General and transferrable skills		
D2- Use information technology to improve his/her professional practice. **استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية**	d2-1 Exchange knowledge and skills with engineering community and industry.	d2-1-1 Prepare environmental solutions and approaches to projects d-2-1-2 Prepare Urban & Environmental Planning program preparation.
D5- Use different sources to obtain knowledge and information. **استخدام المصادر المختلفة للحصول على المعلومات والمعارف**	d5-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d5-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Introduction	9	9	--	--	a1-2-1, a5-1-2, c1-1-1, d5-1-1	1
4-9	the natural environment (context) forces : 1. Global or generalclimate. 2. Land form 3. Soil 4. Peedology &hydrology 5. Vegetation Wild life	18	18	--	--	a1-2-1, a5-1-2, b 6-1-1, c1-1-1	2

10-16	Concepts of : 1. Comfort 2. Heating 3. Cooling 4. ventilation	21	21	--	--	a1-1-1, a1-1-2, b1-1-1, c2-1-1	3
17-19	The ethics of sustainability	9	9	--	--	a5-1-1, a5-1-2, b1-1-2, b6-1-1, c2-1-1, d2-1-1	4
17-18	Symbolism and semiotics in urban design	9	9	--	--	a1-2-1, a5-1-2, c1-1-1, d5-1-1	5
19-20	Expressionism in urban design	9	9	--	-	a1-2-1, a5-1-2, b 6-1-1, d12-1-1	6
20-24	Planning with climate	15	15	--	---	a1-1-1, a1-1-2, b1-1-1, d2-1-2	7
25-30	Use computer application in case studies and applications.	18	18	--	--	a5-1-1, a5-1-2, b1-1-2, b6-1-1, c2-1-1, d5-1-1	8
	Total	90	90	-	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A1 (a1-2), A5 (a5-1)	B1 (b1-1), B6 (b6-1)	C1 (c1-1), C2 (c2-1)	D2 (d2-1), D5 (d5-1)

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
30%	---	**60%**	---	**5%**	---	**5%**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-3

2nd	The natural environment (context) forces global or general climate.	4-9
3rd	Concepts of : 1. Comfort 2. Heating 3. Cooling	10-16
4th	The ethics of sustainability	17-19
5th	Symbolism and semiotics in urban design	17-18
6th	Expressionism in urban design	19-20
7th	Planning with climate	20-24
8th	Use computer application in case studies and applications.	25-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**
Course ILOs	**Knowledge & Understanding**							
a1-1-1 List some of the urban planning theories.	x	x	x					
a1-1-2 Prepare short essays in certain topics of the course.	x	x	x					
a5-1-1 Recognize the interaction between his/her research and surrounding environment.					x	x	x	x
a5-1-2 Show awareness of political and cultural issues and their implications on urban design						x	x	
Course ILOs	**Intellectual Skills**							
b1-1-1 Analyze site properties from the environmental point of view			x	x	x	x	x	x
b1-1-2 .Identify the concepts of sustainable development								
b6-1-1 Problem solving skills.					x	x	x	x
Course ILOs	**Professional Skill**							

c1-1-1 Use competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Urban Planning, using latest engineering techniques, skills, and tools.	x	x	x	x	x	x	x	x
c2-1-1 Employ appropriate conceptual framework.								
Course ILOs	**General Skills**							
d2-1-1 Prepare environmental solutions and approaches to projects					x	x	x	x
d-2-1-2 Prepare Urban & Environmental Planning program preparation.	x							
d5-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .					x	x	x	x

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method											
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-1-1	x	x											
	a1-1-2	x	x											
	a5-1-1	x	x											
	a5-1-2	x	x											
Intellectual Skills	b1-1-1	x												
	b1-1-2	x												
	b6-1-1	x	x	x										
Professional Skills	c1-1-1	x								x				
	c2-1-1	x	x	x						x				
General Skills	d2-1-1			x					x	x				
	d2-1-2			x					x					
	d4-1-1		x	x					x					

10. Assessment

- **Assessment Methods**

Final Written Examination	to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11. Facilities required for teaching and learning

A. laboratory Usage:

Students are expected to prepare and conduct some laboratory experiments relating to determination of the relay setting and establishment of different relay time - current characteristics. Also to test some protection function and to prepare lab reports.

B. Library Usage:

Students should be encouraged to use library technical resources in the preparation of laboratory reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12. List of references:

1. *د علي الحيدري وآخرون، 2002 ، التصميم الحضري، الهيكل والدراسات الميدانية، عربية للطباعة والنشر، القاهرة، الجمهورية مصر العربية*
2. *3-Burgess, R., & Jenks, M. (Eds.). (2002). Compact cities: sustainable urban forms for developing countries. Routledge*
3. *4- Ewing and Otto Clemente (2013),Measuring Urban Design (Metrics for Livable Places), Island Press, USA*
4. 5- *Vasconcellos, E. A. (2014). Urban Transport Environment and Equity: The case for developing countries. Routledge.*
5.

13. Program Coordination Committee:

Course Coordinator:

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Signature :

Date:

UPL 623

Comparative Analysis of Urban Fabrics

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Comparative Analysis of Urban Fabrics	**Code Symbol**: UPL 623	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course is about Analytical comparison for different urban fabrics in areas with distinct cultural, economic and social conditions. The effect of economic, cultural, social and political conditions on the urban fabric of the city. Analysis of some examples to know the conditions that lead to some different urban forms.

2. Course Objectives

By the end of the course the students will be able to:

- Demonstrate a full knowledge of deffierent types of urban fabrics.
- Clarify the relation between the cultural, economic, political, social conditions and Urban fabrics forms.

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Course ILOs
A. Knowledge and understanding		
A1. Theories, basics and specialized knowledge in the field of learning, as well as the subjects that affect his/her professional practice. **النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة**	a1-2 Understand the theories, basics and specialized knowledge in the field of Architectural Engineering .	a1-2-1 List some of the urban fabric types. a1-2-2 Identify different influential factors on urban fabric planning. a1-2-3 Identify short essays in certain topics of the course. a1-2-4 Investigate the distinguishing features for the different fabrics. a1-2-5 Identify the importance of considering the social and ethical aspects in the process of urban planning over the years. a1-2-6 Identify a theoretical background with various styles.
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. **المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.**	a5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a5-1-1 Recognize the interaction between his/her research and surrounding environment. a5-1-2 Show awareness of political and cultural issues and their implications on urban fabrics
A2- Basics, methodologies and ethics of scientific research and its different tools. **أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.**	a2-1 Report new advances in analysis and design methodologies in Architectural Engineering and Urban Planning and its application paradigms.	a2-1-1 Report new advances in analysis and methodologies of Architectural Engineering and Urban Planning.
B. Intellectual skills		
B1- Analyze and evaluate the information in the field of specialization, and relate it to solve problems. **تحليل و تقييم المعلومات في مجال التخصص و القياس عليها لحل المشاكل**	b1-1 Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	b1-1-1 Determine the types of problems and elements that have a significant impact on urban environment.

B4- Conduct a research study and/or writing systematic scientific study about Research problem. **إجراء دراسة بحثية و /أو كتابة دراسة علمية منهجية حول مشكلة بحثية**	b4-1 Write a research plain to conduct applied research	b4-1-1 Analyze some examples to know the conditions that lead to some different urban forms to define problems in urban planning.
B6- Plan for performance development in the field of practice . **التخطيط لتطوير الأداء في مجال التخصص**	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Assess and argue for the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.
C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Practice competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Urban Planning, using latest engineering techniques, skills, and tools.
C3- Evaluate means and tools available in the field of practice. **تقييم الطرق و الأدوات القائمة في مجال التخصص**	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	c3-1-1 Improve comparative thinking between different urban planning schools, philosophies directions and theories.
D. General and transferrable skills		
D4- Use different sources to obtain knowledge and information. **استخدام المصادر المختلفة للحصول على المعلومات و المعارف**	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .
D5- Work as team leader as well as a member in larger teams. **العمل في فريق وقيادة فرق العمل.**	d5-1 Practice team working, and lead teams in specified professional jobs.	d5-1-1 Work in a team and Social leadership skills.
D7- Self evaluation and continuous learning. **التقييم الذاتي والتعلم المستمر.**	d7-1 Seek continuous learning through continuous education, organizing and participating in seminars,	d7-1-1 Use of text- book to collect the data that he needs. d8-1-2 Deliver selected parts of the course in oral

	workshops, national and international conferences.	seminar using available displaying equipment.

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Introduction	9	9	--	--	a1-2-1, a1-2-2, a2-1-1, c1-1-1, , d5-1-1	1
4-6	Urban fabric topologies	9	9	--	--	a1-2-1, a1-2-2, a1-2-3, a2-1-2, c1-1-1	2
7-9	Characterization of urban fabric types and identification of open space typologies	9	9	--	--	a1-2-1, a1-2-2, b1-1-1, c1-1-1, c-3-1-1	3
10-13	Investigation of interactions between urban open space design and microclimate	12	12	--	--	a2-1-1, a2-1-2, b1-1-1,b6-1-1 c1-1-1	4
14-16	The ethics and aesthetics of sustainability in urban planning.	9	9	--	--	a1-2-3, a1-2-6 , a2-1-1 , b1-1-1, b6-1-1, c1-1-1, c3-1-1, d7-1-1	5
17-18	The effect of economic and cultural conditions on the urban fabric of the city	6	6	--	--	a1-2-3, a1-2-4, a1-2-5, a1-2-6, b1-1-1, b6-1-1, c1-1-1, c3-1-1, d4-1-1, d7-1-1	6
19-20	The effect of social and political conditions on the urban fabric of the city	6	6	--	--	a1-2-3, a1-2-4, a1-2-5, a1-2-6, b1-1-1, b6-1-1, c1-1-1, c3-1-1, d8-1-1	7
21- 24	Analytical comparison for different urban fabrics in areas with distinct cultural, economic and social conditions.	12	12	--	--	a1-2-3, a1-2-6,a3-1-1, b1-1-1,b4-1-1, b6-1-1, c1-1-1, c3-1-1, d4-1-1,d5-1-1, d7-1-1	8
25-28	Analysis of some	12	12	--	--	a1-2-3, a1-2-	9

	examples(cities) to know the conditions that lead to some different urban forms					6,a3-1-1, b1-1-1, b4-1-1 ,b6-1-1, c1-1-1, c3-1-1, d4-1-1,d5-1-1, d7-1-1	
29-30	Discussion and presentations	6	6	--	--	a2-1-1, a3-1-1, b6-1-1, c1-1-1, d4-1-1, d5-1-1, d7-1-2	10
	Total	90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A1 (a1-2), A2 (a2-1), A5 (a5-1	B1 (b1-1), B4 (b4-1), B6 (b6-1)	C1 (c1-1), C3 (c3-1)	D5 (d5-1), D4 (d4-1), D7 (d7-1)

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
30%	---	**60%**	---	**5%**	---	**5%**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-3
2nd	Urban fabric topologies	4-6
3rd	Characterization of urban fabric types and identification of open space typologies	7-9
4th	Investigation of interactions between urban open space design and microclimate	10-13
5th	The ethics and aesthetics of sustainability in urban planning.	14-16
6th	The effect of economic and cultural conditions on the urban fabric of the city	17-18
7th	The effect of social and political conditions on the urban fabric of the city	19-20

8th	Analytical comparison for different urban fabrics in areas with distinct cultural, economic and social conditions.	21- 24
9th	Analysis of some examples(cities) to know the conditions that lead to some different urban forms	25-28
10th	Discussion and presentations	29-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	9th	10th
Course ILOs	**Knowledge & Understanding**									
a1-2-1 List some of the urban fabric types.	x	x	x							
a1-2-2 Identify different influential factors on urban fabric planning.	x	x	x							
a1-2-3 Identify short essays in certain topics of the course.		x			x	x	x	x	x	
a1-2-4 Investigate the distinguishing features for the different fabrics						x	x			
a1-2-5 Identify the importance of considering the social and ethical aspects in the process of urban planning over the years.						x	x			
a1-2-6 Identify a theoretical background with various styles.					x	x	x	x		
a5-1-1 Recognize the interaction between his/her research and surrounding environment.	x			x	x					x
a5-1-2 Show awareness of political and cultural issues and their implications on urban fabrics		x		x						x
a2-1-1 Report new advances in analysis and methodologies of Architectural Engineering and Urban Planning.								x	x	x
Course ILOs	**Intellectual Skills**									
b1-1-1 Determine the types of problems and elements that have a significant impact on urban environment			x	x	x	x	x	x	x	
b4-1-1 Analyze some examples to know the conditions that lead to some different urban forms to define								x	x	

problems in urban planning.											
b6-1-1 Assess and argue for the relevance of the findings with regard to practical implications and identify the need for further knowledge within the field.				x	x	x	x	x	x	x	
Course ILOs	**Professional Skill**										
c1-1-1 Practice competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Urban Planning, using latest engineering techniques, skills, and tools	x	x	x	x	x	x	x	x	x	x	
c3-1-1 Improve comparative thinking between different urban planning schools, philosophies directions and theories.			x		x	x	x	x	x		
Course ILOs	**General Skills**										
d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning.						x		x	x	x	
d5-1-1 Work in a team and Social leadership skills.	x							x	x	x	
d7-1-1 Use of text- book to collect the data that he needs.					x	x	x	x	x	x	
d7-1-2 Prepare selected parts of the course in oral seminar using available displaying equipment.										x	

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge &	a1-2-1	x	x											

understanding	a1-2-2	x	x	x										
	a1-2-3	x	x	x			x							
	a1-2-4	x	x	x							x			
	a1-2-5	x	x											
	a1-2-6	x	x											
	a5-1-1		x	x			x				x			
	a5-1-2	x	x	x			x							
	a2-1-1		x	x			x				x			
Intellectual Skills	b1-1-1	x				x			x					
	b4-1-1	x		x			x				x			
	b6-1-1	x	x	x			x							
Professional Skills	c1-1-1	x		x										
	c3-1-1	x	x	x					x					
General Skills	d4-1-1			x			x	x						
	d5-1-1		x	x			x				x			
	d7-1-1		x	x			x				x			
	d7-1-2		x	x			x				x			

10.Assessment

- **Assessment Methods**

Final Written Examination	to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11.Facilities required for teaching and learning

- **Laboratory Usage:** None.

- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12.List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

1. William.J.V.Neill,2004,urban planning and cultural identity.
2. **Ozge yalciner,2012,green and ecological technologies for urban planning.**
3. **عثمان محمد غنيم ، 2015 ، اساليب التحليل النوعي للتخطيط التنموي والعمراني**
4. **اكاديمية نايف العربية ، 2014 ، انماط التخطيط العمراني وعلاقتها بالمخالفات المرورية**

13. Program Coordination Committee:

Course Coordinator:

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Signature :

Date:

UPL 648

Environmental planning for urban projects

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Environmental planning for urban projects	**Code Symbol**: UPL 648	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

This course investigates the impact of the environment on the success and balance of the planning process, taking into account the social and economic dimensions. In addition, it introduces the definition of international conventions and local comfort, theories and planning methods capable of working in the field of regional and urban planning, applied analytical studies in the field of environmental planning.

2. Course Objectives

By the end of the course the students will be able to:

- Demonstrate a full knowledge of the definition of international conventions and local comfort.
- Clarify the relation between the impact of the environment on the success and balance of the planning process, and the social and economic dimensions.
- Analyis the same projects and make an environemntal decition on how to develop concepts to enhance the project components.

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Course ILOs
A. Knowledge and understanding		
A1. Theories, basics and specialized knowledge in the field of learning, as well as the subjects that affect his/her professional practice. **النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة**	a1-2 Understand the theories, basics and specialized knowledge in the field of Architectural Engineering .	a1-2-1 List some of international conventions and local comfort projects. a1-2-2 Identify the impact of the environment on the success and balance of the planning process.
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. **المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.**	a5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a5-1-1 Recognize the interaction between his/her research and surrounding environment. a5-1-2 Estimate the social and economic dimensions
A2- Basics, methodologies and ethics of scientific research and its different tools. **أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.**	a2-1 Recognize Basics and ethics of scientific research.	a2-1-1 Recognize the different styles of citation
B. Intellectual skills		
B1- Analyze and evaluate the information in the field of specialization, and relate it to solve problems. **تحليل و تقييم المعلومات في مجال التخصص و القياس عليها لحل المشاكل**	b1-1 Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning problems.

B3- Link and integrate diverse knowledge to solve professional problems. **الربط بين المعارف المختلفة لحل المشاكل المهنية**	b3-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems.	b3-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.
B6- Plan for performance development in the field of practice . **التخطيط لتطوير الأداء في مجال التخصص**	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Assess and argue for the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.
C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Illustrate competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering techniques, skills, and tools.
C2- Write and evaluate technical and professional reports. **كتابة و تقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning .	c2-1-1 Conduct a focused review of the relevant literature and create appropriate conceptual framework.
C3- Evaluate means and tools available in the field of practice. **تقييم الطرق و الأدوات القائمة في مجال التخصص**	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	c3-1-1 Apply Comparative international conventions and local comfort, theories and planning methods capable of working in the field of regional and urban planning
D. General and transferrable skills		
D2- Use information technology to improve his/her professional practice. **استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية**	d2-1 Employ the information technology skills to serve his / her career development.	d2-2-1 Use the information technology skills to serve his / her career development.
D4- Use different sources to obtain knowledge and	d4-1 Use different sources of information like library,	d4-1-1 Use different sources of information

information. **استخدام المصادر المختلفة للحصول على المعلومات والمعارف**	internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .
D5- Work as team leader as well as a member in larger teams. **العمل في فريق وقيادة فرق العمل.**	d5-1 Practice team working, and lead teams in specified professional jobs.	d5-1-1 Work in a team and Social leadership skills.
D7- Self evaluation and continuous learning. **التقييم الذاتي والتعلم المستمر.**	d7-1 Seek continuous learning through continuous education, organizing and participating in seminars, workshops, national and international conferences.	d7-1-1 Use of text- book to collect the data that he needs. d8-1-2 Prepare selected parts of the course in oral seminar using available displaying equipment.

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Indicators and methods of measuring environmental impact Methodology and steps of environmental impact assessment	3	3	--	--		1
4-6	Select the domain Step evaluation of alternatives and consultation Environmental Report Step	3	3	--	--		2
7-9	Environmental impact assessment of planning projects	3	3	--	--		3
10-13	Introduction, Objectives& modern attempts of the Urban Renewal.	3	3	--	--		4
14-16	Environmental Urban Renewal for land uses:-Housing , commercial , Industrial, open spaces & green zones , wild-life sanctuary	3	3	--	--		5
17-18	Environmental Renewal program in cities: Visual Environment, social &economics Environment&	3	3	--	--		6

	Infrastructure networks Environment						
19-21	Impact of environmental impact assessment on land use and transport….	3	3	--	--		7
22- 26	Modern types of environmental assessment, including strategic environmental assessment	3	3	--	--		8
27-30	Discussing the environmental report of the applied project	3	3	--	--		9
31	Final exam						
		90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Program Academic Standards that the course contributes in achieving.	A1 (a1-2), A2 (a2-1), A5 (a5-1)	B1 (b1-1), B3 (b3-1), B6 (b6-1)	C1 (c1-1), C2 (c2-1), C3 (c3-1)	D2 (d2-1), D4 (d4-1), D5 (d5-1), D7 (d7-1)

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
30%	---	**50%**	**10%**		---	**10%**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	Indicators and methods of measuring environmental impact Methodology and steps of environmental impact assessment	1-3
2nd	Select the domain Step evaluation of alternatives and consultation Environmental Report Step	4-6
3rd	Environmental impact assessment of planning projects	7-9
4th	Introduction, Objectives& modern attempts of the Urban Renewal.	10-13
5th	Environmental Urban Renewal for land uses:-Housing , commercial , Industrial, open spaces & green zones , wild-life sanctuary	14-16
6th	Environmental Renewal program in cities: Visual Environment, social &economics Environment& Infrastructure networks Environment	17-18

7th	Impact of environmental impact assessment on land use and transport….	19-21
8th	Modern types of environmental assessment, including strategic environmental assessment	22- 26
9th	Discussing the environmental report of the applied project	27-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	9th
Course ILOs	**Knowledge & Understanding**								
a1-2-1 List some of international conventions and local comfort projects.	x		x	x					x
a1-2-2 Identify the impact of the environment on the success and balance of the planning process.				x	x	x	x	x	x
a5-1-1 Recognize the interaction between his/her research and surrounding environment.	x	x	x	x	x				x
a5-1-2 Estimate the social and economic dimensions	x		x	x			x	x	
a2-1-1 Recognize the different styles of citation	x			x		x			x
Course ILOs	**Intellectual Skills**								
b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning problems.				x	x			x	x
b3-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.	x		x			x	x	x	
b6-1-1 Assess and argue for the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.			x	x		x	x		
Course ILOs	**Professional Skill**								
c1-1-1 Illustrate competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and		x		x		x		x	x

Urban Planning, using latest engineering techniques, skills, and tools.										
c2-1-1 Conduct a focused review of the relevant literature and create appropriate conceptual framework.	x		x	x	x	x		x		
c3-1-1 Apply Comparative international conventions and local comfort, theories and planning methods capable of working in the field of regional and urban planning	x		x	x		x	x	x		
Course ILOs	**General Skills**									
d2-2-1 Use the information technology skills to serve his / her career development.	x	x			x	x	x	x	x	
d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .	x		x		x	x	x	x		
d5-1-1 Work in a team and Social leadership skills.	x	x			x	x			x	
d7-1-1 Use of text- book to collect the data that he needs.	x		x	x	x	x	x		x	
d7-1-2 Prepare selected parts of the course in oral seminar using available displaying equipment.	x	x			x	x			x	

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self-learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-2-1	x				x					x	x		x
	a1-2-2	x		x					x	x		x		
	a5-1-1	x		x		x			x	x	x	x		x
	a5-1-2	x		x						x		x		
	a2-1-1	x				x				x	x			x

Intellectual Skills	b1-1-1	x		x		x								
	b3-1-1													
	b6-1-1	x		x		x								
Professional Skills	c1-1-1	x							x	x	x			
	c2-1-1			x		x			x	x		x		
	c3-1-1	x		x		x					x			
General Skills	d2-1-1			x					x	x		x		
	d4-1-1	x		x		x					x	x		
	d5-1-1	x				x			x	x	x			
	d7-1-1			x								x		
	d7-1-2	x				x			x	x	x	x		

10. Assessment

- **Assessment Methods**

Final Written Examination	to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11. Facilities required for teaching and learning

- Lecture/ Seminar rooms: equipped with dark curtains, projector, and projection board, blackground, advanced PC and data show, and exihibition rooms.
- **Laboratory Usage:** None.
- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12. List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

- THE ROLE OF THE URBAN MANAGEMENT IN SOLVING THE URBAN PROBLEMS (ASSIUT CITY AS A CASE STUDY)
- كتاب تخطيط المدن للدكتور أسامة خصاونه ، كلية الهندسة قسم هندسة العمارة ، جامعة فيلادلفيا
- Urban Development Planning and Management in Africa-The Guest for Strategic City Pla
- مصر في العمرانية التنمية علي الإدارة لامركزية تأثير
- سيد محمد التونى، نسمات عبد القادر – تخطيط وتصميم المناطق السكنية – القاهرة – مصر 1984–
- Tranck, R.; Finding Lost Space: Theories OF Urban Design. VanNostrand , New York, 1986

- Curran , R.J. : Architecture and the Urban Experience . Van Nostrand
- Reinhold Company ,New York, Cincinnati , Toronto , London m Melbourne 1983

Periodicals, Web Sites, etc.

1. https://www.arch.virginia.edu/programs/urban-environmental-planning
2. https://www.environmentalscience.org/career/urban-planner
3. https://landuse.co.uk/services/urban-design-masterplanning/

13.Program Coordination Committee:

Course Coordinator:

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Signature :

Date:

UPL 663

Contemporary Trends of Urban Design

Course Specification

Program on which the course is given	PH.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	**PH.D**
Date of specification approval	2020

A- Basic Information

Title: Contemporary Trends of Urban Design	**Code Symbol**: UPL 663	
Lecture	3 hours	
Tutorial / Laboratory	-- hour	
Total	3 hours	Bylaw 2000

B- Professional Information

1. Course Aims:

The course will adopt a critical perspective towards contemporary trends in urban planning and design, in order to develop an in-depth approach toward a more meaningful urban design for the future. The objective of the course is to stimulate students to formulate their own viewpoints by sharpening their critical thinking and enabling a provocative debate into the inquiry of the conceptual nature of urban design. The course concentrates on urban design studios where students will investigate the complex nature of 'successful' urban design trends (those that are at the leading edge of practice today) .

2. Course Objectives

After completing the course the student will be able to:

• Comprehend more clearly the relation between theory and practice in urban planning and design and the plethora of disciplines involved in bridging architecture and planning on micro and meso scales.
• Understand theoretically and practically the complexities of urban design issues in not just designing but also retrofitting suburban, town or central urban areas.
• Have good knowledge and understanding of problems that arise in creating and maintaining environments for urban activities as well as approaches and methods of urban planning and design in helping to cope with such problems.
• Have good knowledge and understanding of various contemporary approaches and trends to everyday urbanism problems in cities and suburban areas.

• Be able to express own urban planning and design results as well as other viewpoints in a coherent and qualitative way by the way of drawings, sketches, essays and ad-lib/oral manner.

• Have advanced skills of urban design studio work in order to comprehend major urban issues both as end users and as researchers and technical experts.

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Course ILOs
A. Knowledge and understanding		
A1. Theories, basics and specialized knowledge in the field of learning, as well as the subjects that affect his/her professional practice. **النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة**	a1-2 Understand the theories, basics and specialized knowledge in the field of Architectural Engineering .	a1-2-1 List some of the contemporary theories of architecture. a1-2-2 Identify different theories of architecture. a1-2-3 Outline the differences between the Induction and Deduction inference methodology a1-2-4 Investigate short essays in certain topics of the course. a1-2-5 Define the distinguishing features for the different periods. a1-2-6 Define theoretical concepts. a1-2-7 Identify the importance of considering the social and ethical aspects in the process of architecture design over the years. a1-2-8 State a theoretical background with various styles. a1-2-9 Recognize and appreciate architectural work of the third architectural pioneers.

A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation. **المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها.**	a5-1 Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment	a5-1-1 Recognize the interaction between his/her research and surrounding environment. a5-1-2 Show awareness of political and cultural issues and their implications on architecture
A2- Basics, methodologies and ethics of scientific research and its different tools. **أساسيات ومنهجيات وأخلاقيات البحث العلمي وأدواته المختلفة.**	a2-1 Recognize Basics and ethics of scientific research.	a2-1-1 Recognize the different styles of citation
B. Intellectual skills		
B1- Analyze and evaluate the information in the field of specialization, and relate it to solve problems. **تحليل و تقييم المعلومات في مجال التخصص و القياس عليها لحل المشاكل**	b1-1 Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning problems.
B3- Link and integrate diverse knowledge to solve professional problems. **الربط بين المعارف المختلفة لحل المشاكل المهنية**	b3-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems.	b3-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.
B6- Plan for performance development in the field of practice . **التخطيط لتطوير الأداء في مجال التخصص**	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Assess and argue for the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.
C. Professional and practical skills		
C1- Master the basic as well as the latest professional skills in the field of specialization. **إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص**	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Practice competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest engineering

		techniques, skills, and tools.
C2- Write and evaluate technical and professional reports. **كتابة و تقييم التقارير المهنية**	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning .	c2-1-1 Conduct a focused review of the relevant literature and create appropriate conceptual framework.
C3- Evaluate means and tools available in the field of practice. **تقييم الطرق و الأدوات القائمة في مجال التخصص**	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	c3-1-1 Apply comparative thinking between different architectural schools, philosophies directions and theories.
D. General and transferrable skills		
D2- Use information technology to improve his/her professional practice. **استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية**	d2-1 Employ the information technology skills to serve his / her career development.	d2-2-1 Use the information technology skills to serve his / her career development.
D4- Use different sources to obtain knowledge and information. **استخدام المصادر المختلفة للحصول على المعلومات والمعارف**	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .
D5- Work as team leader as well as a member in larger teams. **العمل في فريق وقيادة فرق العمل.**	d5-1 Practice team working, and lead teams in specified professional jobs.	d5-1-1 Work in a team and Social leadership skills.
D7- Self evaluation and continuous learning. **التقييم الذاتي والتعلم المستمر.**	d7-1 Seek continuous learning through continuous education, organizing and participating in seminars, workshops, national and international conferences.	d7-1-1 Use of text- book to collect the data that he needs. d8-1-2 Prepare selected parts of the course in oral seminar using available displaying equipments.

4. Course Contents

Week No.	*Topic*	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
			Lec.	Tut.	Lab.		
1-3	Introduction	12	12	--	--	a1-2-1, a1-2-2, a1-2-8, a2-1-1, c1-1-1, d4-1-1, d5-1-	1

						1	
4-6	Contemporary Trend design	12	12	--	--	a1-2-1, a1-2-2, a1-2-8, a2-1-2, c1-1-1	2
7-9	Contemporary philosophies	12	12	--	--	a1-2-1, a1-2-2, b1-1-1, c1-1-1	3
10-13	New modernism Post urbanism	12	12	--	--	a1-2-7, a1-2-9, b1-1-1, c1-1-1	4
14-16	New modernism Post urbanism	6	6	--	--	a1-2-3, a1-2-6, a1-2-7, a1-2-8, a1-2-9, a6-1-1 , b1-1-1, b6-1-1, c1-1-1, c3-1-1, d2-2-1, d7-1-1	5
17-18	Role playing design 5 groups research on given trends	6	6	--	--	a1-2-3, a1-2-4, a1-2-5, a1-2-6, a1-2-7, a1-2-9, a6-1-1, b1-1-1, b6-1-1, c1-1-1, c3-1-1, d2-2-1, d7-1-1	6
19-20	presentation	6	6	--	--	a1-2-3, a1-2-4, a1-2-5, a1-2-6, a1-2-7, a1-2-9, a6-1-1, b1-1-1, b6-1-1, c1-1-1, c3-1-1, d2-2-1, d7-1-1	7
21- 24	Analysis of other students designs	6	6	--	--	a1-2-3, a1-2-6, a1-2-9, a6-1-1, b1-1-1, b6-1-1, c1-1-1, c3-1-1, d2-2-1, d7-1-1	8
25-30	Performance based design - lecture	18	18	--	--	a2-1-1, a3-1-1, b3-1-1, c2-1-1, d4-1-1, d5-1-1, d7-1-1, d7-1-2	9
	Total	90	90	--	--		

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A1 (a1-2), A2 (a2-1), A5 (a5-1)	B1 (b1-1), B3 (b3-1), B6 (b6-1)	C1 (c1-1), C2 (c2-1), C3 (c3-1)	D2 (d2-1), D5 (d5-1), D4 (d4-1), D7 (d7-1)

6. Course Subject Area:

A	**B**	**C**	**D**	**E**	**F**	**G**	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
30%	---	**60%**	---	**5%**	---	**5%**	**100%**

7. Course Topics.

Topic No.	Topic	Weeks
1st	Introduction	1-3
2nd	Contemporary Trend design	4-6
3rd	Contemporary philosophies	7-9
4th	New modernism Post urbanism	10-13
5th	New modernism Post urbanism	14-16
6th	Role playing design 5 groups research on given trends	17-18
7th	presentation	19-20
8th	Analysis of other students designs	21- 24
9th	Performance based design - lecture	25-30

8. ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	**8th**	9th
Course ILOs	**Knowledge & Understanding**								
a1-2-1 List some of the contemporary theories of architecture.	x	x	x						
a1-2-2 Identify different theories of architecture.	x	x	x						

a1-2-3 Outline the differences between the Induction and Deduction inference methodology					x	x	x	x	
a1-2-4 Investigate short essays in certain topics of the course.						x	x		
a1-2-5 Compare the distinguishing features for the different periods.						x	x		
a1-2-6 Define theoretical concepts.					x	x	x	x	
a1-2-7 Identify the importance of considering the social and ethical aspects in the process of architecture design over the years.				x	x	x	x		
a1-2-8 State a theoretical background with various styles.	x	x			x				
a1-2-9 Recognize and appreciate architectural work of the third architectural pioneers.				x	x	x	x	x	
a5-1-1 Recognize the interaction between his/her research and surrounding environment.	x								x
a5-1-2 Show awareness of political and cultural issues and their implications on architecture		x							
a2-1-1 Recognize the different styles of citation					x	x	x	x	
Course ILOs	**Intellectual Skills**								
b1-1-1 Demonstrate algorithms and flowcharts approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning problems.			x	x	x	x	x	x	
b3-1-1 Analyze, interpret and manipulate data from a variety of sources and relate it to solve professional problems related to Architectural Engineering and Urban Planning.									x
b6-1-1 Assess and argue for the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.					x	x	x	x	
Course ILOs	**Professional Skill**								
c1-1-1 Practice competence skills, such as identifying, formulating, analyzing, and creating engineering solutions related to Architectural Engineering and Urban Planning, using latest	x	x	x	x	x	x	x	x	

engineering techniques, skills, and tools.										
c2-1-1 Conduct a focused review of the relevant literature and create appropriate conceptual framework,										x
c3-1-1 Apply comparative thinking between different architectural schools, philosophies directions and theories.						x	x	x	x	
Course ILOs	**General Skills**									
d2-2-1 Use the information technology skills to serve his / her career development.						x	x	x	x	
d4-1-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge about Architectural Engineering and Urban Planning .	x									x
d5-1-1 Work in a team and Social leadership skills.	x									x
d7-1-1 Use of text- book to collect the data that he needs.						x	x	x	x	x
d7-1-2 Prepare selected parts of the course in oral seminar using available displaying equipment.										x

9. Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	a1-2-1	x	x											
	a1-2-2	x	x											
	a1-2-3	x	x											
	a1-2-4	x	x											
	a1-2-5	x	x											
	a1-2-6	x	x											
	a1-2-7	x	x											

	a1-2-8	x	x											
	a1-2-9	x	x											
	a2-1-1		x	x										
	a5-1-1		x	x										
	a5-1-2		x	x										
	a2-1-1		x	x										
Intellectual Skills	b1-1-1	x												
	b3-1-1	x												
	b6-1-1	x	x	x										
Professional Skills	c1-1-1	x							x					
	c2-1-1	x	x	x					x					
	c3-1-1	x	x	x					x					
General Skills	d2-1-1			x					x					
	d4-1-1			x					x					
	d5-1-1		x	x										
	d7-1-1		x	x										
	d7-1-2		x	x										

10.Assessment

- **Assessment Methods**

Final Written Examination	to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

- **Assessment Schedule and Grades Distribution**

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11.Facilities required for teaching and learning

- **Laboratory Usage:** None.

- **Library Usage:**

Students should be encouraged to use library technical resources in the preparation of reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12.List of References:

Course and Lab Notes:

No lectures and Labs notes.

Essential Books (Text Books):

1. AboMoslim, S & Russell, A. 2005. Evaluating Innovative Design And Construction Technologies For Super Hi-Rise Buildings On An International Basis. 6th Construction Specialty Conference, Toronto, Ontario, Canada. June 2-4, 2005.
2. Wahba, Sh. 2007. Value Of Architecture Today: Architecture Between Culture & Commerce A Reading In The Contemporary Architecture. Al-Azhar Engineering Ninth International Conference. April 12 - 14, 2007. Code A 06.
3. Marcuse, P. 2006. "Tradition in a Global City?" Traditional Dwellings and Settlements Review, Vol. XVII Number.
4. Mahgoub, Y. 2006 Architecture and the Expression of Cultural Identity in Kuwait, Paper presented at the 1st International Symposium on Environment, Behavior and Society, People in Place in People, February 9-11, 2006, Sydney, Australia.
5. Mahgoub, Y. 2007. Hyper Identity: The Case Of Kuwaiti Architecture. Archnet-IJAR, International Journal of Architectural Research, Volume 1 - Issue 1 - March 2007
6. Lutfi. S. 2006. How the Irregular Adds Value. Chicago International Conference. Thinking outside the Box: Tapered, Tilted, Twisted Towers. CTBUH 2006. Council on Tall Buildings and Urban Habitat. October 25-26, 2006. Chicago, Illinois. Session 3 part 2.

Periodicals, Web Sites, etc.

11. http://www.archrecord.com/
12. http://www.worldarchitecturenews.com

13.Program Coordination Committee:

Course Coordinator:

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Signature :

Date:

Doctor of Philosophy

Thesis

Specification

Thesis Specification

Program on which the thesis is given	Ph.D in Architectural Engineering and Urban Planning
Major or minor element of program	Major
Department offering the program	Architectural and Urban Planning
Department offering the course	Architectural and Urban Planning
Academic year/Level	Ph.D
Date of specification approval	***2020***

A- Basic Information

Title: Thesis	**Code Symbol**: **Without**	
Lecture	Independent but regular contacts with the supervisor is required	
Tutorial / Laboratory	Independent	
Total	At least 2 years	Bylaw 2000

B- Professional Information

1- Thesis Aims:

The Ph.D Thesis is an independent project (degree project) to develop and display the skills and abilities of the student to carry out individual, independent scientific work on a specific topic, exploring it in a trans-disciplinary manner, and assessing solutions and conclusions with respect to the different dimensions of sustainability. It does not aim to provide additional substantive material or methodological toolkit, the way typical graduate courses do. Its goal is rather modest as it attempts to apply student cumulative understanding and skills to specific research situation. From the perspective of one's program of study, however, the thesis phase poses a real-world test helping to make a realistic transition from coursework to dissertation. Completing a dissertation successfully is the last and often most challenging part of master studies. The goal is to put one's theoretical knowledge and research proficiency to practical test by carrying out an independent, albeit guided, project producing an original piece of research and making a significant contribution to solving a

problem and expanding the knowledge base in the specific discipline. While research is an ongoing process, in which one is expected to stay on top of the relevant developments in the discipline, the assumption is that students are capable of thinking through the important milestones in the dissertation process and developing a dissertation prospectus that spells out the core concepts and questions as well as the designs of research and the structure of intended dissertation. The overall aim of the thesis phase is that the students should further develop and enhance their ability to independently plan, conduct and report on a research project which makes a contribution to the current state-of-the-art in the area. Also, the student should exhibit ability to in detail, creatively, with a high level of clarity and authority, using scientific scrutiny and adequate tools identify, explain, analyze and assess issues pertinent to a Ph.D thesis in the research field, within which the thesis project is placed. On balance, a successful completion of the thesis phase is marked by student ability to do the following:

1. Apply his/her theoretical and methodological understanding and skills into devising researchable ideas and specific research questions and hypotheses,
2. Conduct a focused review of the relevant literature and create appropriate conceptual framework,
3. Develop a realistic research design with specific research strategies,
4. Communicate research ideas and their appropriate theoretical and methodological issues effectively and efficiently,
5. Critique other's ideas paying particular attention to both theoretical and methodological rigor and reality.
6. Gain understanding of the process of dissertation including stress, time, and project management, committee formation, dissertation proposition and defense, and human subjects reviews.
7. Develop and execute his/her survey to collect the necessary data to prove / support the problem that he has set up.
8. Identify own knowledge needs with respect to the planned project.
9. Write theses and report on research projects in a scientifically sound way.
10. Describe what the contribution of his/her thesis is and relate it to the current state-of-the-art within one or several international knowledge communities within the discipline
11. State the threats against and argue for the validity of her/his research methods, and in doing so, show awareness of that the concept of validity may have different values and be used in different ways within qualitative and quantitative research approaches.
12. Analyze a master's thesis in a constructively critical way and identify the major strong and weak points of the thesis.
13. Describe how and where he/she has searched for, and why he/she has probably found the most relevant related work.

2- Intended Learning Outcomes (ILOs) for the whole program

The thesis is designed to achieve the above objectives through the following **Intended Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	Program ILOs	Thesis ILOs
A. Knowledge and understanding		
A1- Basic facts & theories in the field of Architectural Engineering and Urban Planning, and interrelated fields	a1-1 Understand the theories, basics and specialized knowledge pertinent to a Ph.D thesis in the research field.	a1-1-1 Demonstrate profound knowledge and understanding of the thesis topic, especially in relation to the different dimensions of sustainability, and to previous and current research in the field, and relating it to a wider perspective. a1-1-2 Demonstrate deeper methodological knowledge and understanding of system analysis approaches to the environmental and sustainability issues in the thesis, and of research methodology suitable to identify more sustainable solutions to the problems addressed in the thesis.
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation.	a5-1 Discuss Social effects of Architectural Engineering and Urban Planning technologies.	a5-1-1 State mutual relation between professional social aspects of his/her research and its effects on the Environment.
	a5-2 Recognize the interaction between Architectural Engineering and Urban Planning technologies and surrounding environment.	a5-2-1 Recognize the interaction between his/her research and surrounding environment.
A3- Details of ethical & legal practice	a3-1 Report ethnical and professional responsibility issues arising in the practice of the engineering profession.	a3-1-1 Describe and explain principles for ethical considerations in relation to scientific research. a3-1-2 Demonstrate an ability to make assessments regarding sustainability problems while taking into account relevant scientific,

		social and ethical aspects, and demonstrate an awareness of ethical aspects of research and development work thereby demonstrating insight into the potential and limitations of knowledge and science to solve sustainability problems.
A4- Quality standards of the practice	a4-1 Explain Quality Assurance concepts of different Architectural Engineering and Urban Planning components and systems development phases.	a4-1-1 Stare quality Assurance concepts of different Architectural Engineering and Urban Planning components and systems development phases.
	a4-2 Adopt cost-effective practice and resources allocation that does not compromise quality of service.	a4-2-1 Identify cost-effective practice and resources allocation that does not compromise quality of service during his/her research development phases.
A2- Basics, methodologies and ethics of scientific research and its different tools.	a2-1 Recognize Basics and ethics of scientific research.	a2-1-1 Demonstrate insights into ethical aspects on research in general.
	a2-2 Undertake aspects pertaining to intellectual property rights.	a2-2-1 identify aspects pertaining to intellectual property rights during his/her research development phases.
B. Intellectual skills		
B1- Analyze, deduce, extrapolate and evaluate information.	b1-2 Interpret, analyze, and evaluate a given system specification information and relate it to the design of the required system.	b1-2-1 Identify and formulate a problem from a scientific perspective, collect data or use already collected empirical data, and demonstrate skills and ability to perform analyses related to the scientific problem.
B2- Solve the majority of problems in Architectural Engineering and Urban Planning field according to the available data (complete or incomplete)	b2-1 Apply broad knowledge of modern computational methods and think critically to solve unstructured problems (with complete or incomplete data) related to Urban Planning engineering.	b2-2-1 State his/her theoretical and methodological understanding and skills into devising researchable ideas and specific research questions and

		hypotheses and to formulate judgments with incomplete data.
B3- Add to the Architectural Engineering and Urban Planning field through creativity & innovation	b3-2 Use new integrated approaches to scientific problem solving and deduce the most appropriate solution to a given problem case study.	b3-2-1 Identify, critically and systematically, theoretical knowledge and empirical data, using appropriate research methods and properly handling uncertainties, thereby contributing to the production of knowledge. b3-2-2 Show an ability to integrate knowledge and handle complexity, and to formulate judgments with incomplete data.
B4- Conduct research studies that add to the existing Architectural Engineering and Urban Planning technology knowledge	b4-1 Compare and evaluate published articles and research concerning specified problem related to Architectural Engineering and Urban Planning field.	b4-1-1 Recognize other's ideas paying particular attention to both theoretical and methodological rigor and reality. b4-1-2 Investigate ability to critically evaluate other people's research in a systematic way and be able to refer to current research in their own work.
	b4-2 Perform applied research on industrial and societal concerns problems that add to the existing Architectural Engineering and Urban Planning field.	b4-2-1 State an ability to critically, independently and creatively Perform applied research on industrial and societal concerns problems that add to the existing Architectural Engineering and Urban Planning field.
B5- Evaluate risks imposed during professional practice.	b5-1 Evaluate pros and cons of given methodologies for Architectural Engineering and Urban Planning systems development.	b5-1-1 Select a master's thesis in a constructively critical way and identify the major strong and weak points of the thesis.
B6- Plan and implement (or supervise implementation of)	b6-1 Plane to guide progress in his / her professional career.	b6-1-1 Identify his/her need of further knowledge and to take responsibility for developing such

enhancement & improvement approaches to Architectural Engineering and Urban Planning systems		knowledge through a plan to guide progress in his / her professional career.. b6-1-2 Investigate the relevance of the findings with regard to practical implications, and identify the need for further knowledge within the field.
B7- Take decisions in various professional situations	b7-1 Acquire decision making capabilities in different situation when facing problems related to analysis, design and development Architectural Engineering and Urban Planning systems.	b7-1-1 State decision making capabilities in different situation when facing problems related to analysis, design and development his/her research plan.
B8- Design, conduction of scientific research and Publishing scientific article paper	b8-1 Write an research plain to conduct applied research.	B8-1-1 Show an ability to critically, independently and creatively identify and formulate a realistic research plan with specific research strategies for his applied research and specifying steps and timelines.
	b8-2 Develop scientific article paper(s) covering an appropriate Architectural Engineering and Urban Planning	b8-2-1 Identify an ability to critically, independently and creatively develop scientific article paper(s) covering an appropriate Architectural Engineering and Urban Planning
B9- Manage discussions on basis of evidence and proofs	b9-1 Manage discussions on basis of evidence and proofs	b9-1-1Identify an ability to Manage discussions on basis of evidence and proofs.
C. Professional and practical skills		
C1- Compete in all basis and all required advanced Architectural Engineering and Urban Planning skills	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Demonstrate the ability to identify and formulate a problem from a scientific perspective, collect data or use already collected empirical data, and demonstrate skills and ability to perform analyses related to the scientific problem.
	c1-2 Provide practical and/or	c1-2-1 Maintain practical and/or

	laboratory services that can help in solving problem related to Architectural Engineering and Urban Planning systems..	laboratory services that can help in solving problem related to Architectural Engineering and Urban Planning systems.
	c1-3 Demonstrate practical/laboratory skills relevant to Architectural Engineering and Urban Planning systems..	c1-3-1 Demonstrate practical / laboratory skills relevant to his/her research.
C2- Write and appraise reports	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning technical matters.	c2-1-1 Create theses and report on research projects in a scientifically sound way. c2-1-2 Analyze a focused review of the relevant literature and create appropriate conceptual framework,
C3- Evaluate and improve methods and tools used in Architectural Engineering and Urban Planning.	c3-1 Evaluate methods and tools reported in a specified published articles and researches concerning specified problem related to Architectural Engineering and Urban Planning	c3-1-1 Analyze and evaluate methods and tools reported in a specified published articles and researches concerning specified problem related to Architectural Engineering and Urban Planning in a constructively critical way and identify the major strong and weak points of them.
C4- Use technology to advance practice	c4-1 Express competence skills to use technology to advance practice	c4-1-1 Resolve competence skills to use technology to advance practice
C5- Plan professional development courses to improve practice and enhance performance of juniors	c5-1 Plan courses or seminars in Architectural Engineering and Urban Planning that add to the professional knowledge, improve practice, and enhance performance of juniors.	c5-1-1 Investigate professional development courses to improve practice and enhance performance of juniors
D. General and transferrable skills		
D1- Communicate effectively using all methods	d1-1 Express professional and communication skills to innovate and to interact with the scientific community, research team and technocrats involved in multinational companies at global	d1-1-1 Communicate research ideas and their appropriate theoretical and methodological issues effectively and efficiently, d1-1-2 Use the ability to communicate results both verbally

	level in the related fields to Architectural Engineering and Urban Planning.	and in writing.
D2- Use information technology to improve his/her professional practice	d2-1 Use state-of-the-art computer aided design tools for solving Architectural and Urban Planning Engineering problems.	d2-1-1Use state-of-the-art computer aided design tools for solving Architectural and Urban Planning Engineering problems.
	d2-2 Employ the information technology skills to serve his / her career development.	d2-2-1 Use the information technology skills to serve his / her career development.
D3- Teach and evaluate others	d3-1 Design standards to evaluate others performance.	d3-1-1 Acquire ability to critically evaluate other people's performance in a systematic and standard way.
D4- Use different sources of information to obtain data	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Use different sources of information like library, internet access facilities, etc. to develop and execute his/her survey to collect the necessary data to prove / support the problem that he/she has set up.
D5- Work as team leader as well as a member in larger teams	d5-1 Practice team working, and lead teams in specified professional jobs.	d5-1-1 Use significantly enhanced group working abilities to implement a certain project.
D6- Manage scientific meetings and appropriately utilize time	d6-1 Manage time perfectly.	d6-1-1 Manage time and work to deadlines. d6-1-2 Develop a workable weekly schedule based on his/her individual thesis direction. d6-1-3 Acquire understanding of the process of dissertation including stress, time, and project management, committee formation, dissertation proposition and defense, and human subjects reviews.
D7- Perform self appraisal& seek continuous learning	d7-1 Express a strong foundation of continuous learning so they can maintain their technical competency.	d7-1-1 Express a strong foundation of continuous learning so they can maintain their technical competency.
	d7-2 Seek continuous learning through continuous education,	d7-2 Seek continuous learning through continuous education,

	organizing and participating in seminars, workshops, national and international conferences.	organizing and participating in seminars, workshops, national and international conferences.

3- Thesis Phases:

The Master's Thesis is an independent project (degree project) to develop and display the skills and abilities of the student to carry out individual, independent scientific work on a specific topic. The readings for the thesis work are selected by the individual student in collaboration with the supervisor. **The Ph.D Thesis phases can be outlined as follow:**

1. Developing a thesis proposal by formulating a realistic research plan with specific research strategies and specifying steps and timelines
2. Identify and construct a problem/thesis statement.
3. Presentation and defending of self-authored materials describing the thesis proposal at a seminar with external discussants (Department Staff).
4. Conduct a focused review of the relevant literature and create appropriate conceptual framework.
5. Analyze and evaluate methods and tools reported in a specified published articles and researches concerning the thesis problem in a constructively critical way and identify the major strong and weak points of them.
6. Carry out research:
   - Use state-of-the-art computer aided design tools.
   - Provide practical and/or laboratory services that can help.
7. Analysis and discussion of the simulated / practical results.
8. Developing defensible conclusions.
9. Writing the final thesis.
10. Presentation and defending of self-authored materials describing the thesis at a seminar with external discussants (Department Staff).
11. Reporting on and presenting the thesis in a final defense. At the examination seminar, the student should be able to respond to criticism given and also act as an opponent.

- The thesis work also includes a number of thesis workshop sessions in advance, where research and writing methods are discussed, and where the individual initial drafting of the thesis scope and outline is discussed.

- Throughout these phases:

  ➢ The academic supervisor helps and guides the students.

- The student is to write a manuscript in the format of a scientific articles (at least two) to be published.
- Documentation is carried out.

4- Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course contributes in achieving.	A1 (a1-1), A2 (a2-1, a2-2), A3 (a3-1), A4 (a4-1), A5 (a5-1, a5-2)	B1 (b1-2), B2 (b2-1), B3 (b3-2), B4 (b4-1,b4-2) B5 (b5-1), B6 (b6-1), B7 (b7-1), B8 (b8-1, b8-2), B9 (b9-1)	C1 (c1-1, c1-2), C2 (c2-1), C3 (c3-1), C4 (c4-1), C5 (c5-1)	D1 (d1-1), D2 (d2-1, d2-2), D3 (d3-1), D4 (d4-1), D5 (d5-1), D6 (d6-1), D7 (d7-1, d7-2)

5- Course Subject Area:

A	B	C	D	E	F	G	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
---	---	-	-	-	100		100 %

6- Learning and Teaching Methods:

Besides proposing, planning, conducting and presenting one's own Ph.D thesis project, the student is required to read, analyze and evaluate methods and tools reported in a specified published articles and researches concerning the thesis problem in a constructively critical way and identify the major strong and weak points of them and write an opponent report about it. The supervisor supports and supervises the student throughout the entire thesis project, but it is the student who must take on the responsibility of requesting support and supervision during the on-going project. The student is expected to report to her/his supervisor at least every four weeks. Besides this, the student is required to hand in a written progress report at least every three months. One or several lectures or seminars held by internal guest researchers, and focusing on research methods and the art of presenting research results, are arranged during the thesis development. In-seminar discussions should be enhanced with additional student-advisor (and committee, if appropriate) meetings. Students are expected to be prepared for all seminar meetings. It is mandatory for the student to have regular contacts with the supervisor so that the supervisor is able to follow the student's work process to secure the progress and the quality of the work. The thesis

work also includes a number of thesis workshop sessions in advance, where research and writing methods are discussed, and where the individual initial drafting of the thesis scope and outline is discussed.

7- Assessment Methods:

7.1 Assessment is carried out by evaluating of the student ability to clearly present the thesis orally and to discuss and defend the conclusions and the knowledge and arguments behind them, in a dialogue with examiner committee.

7.2 For a passing grade the student must (a) make an acceptable oral presentation of the thesis; (b) perform an acceptable defense of the thesis and should be able to respond to criticism given by the examiner committee and also act as an opponent.

8- Facilities required for teaching and learning

Blackboard – Class Room Equipped with Computer and Video Projector - Computer Lab – Specialized Architectural Engineering and Urban Planning Lab - Library.

A. laboratory Usage:

Students are expected to prepare and conduct some computer simulation and practical works using computer ad specialized Architectural Engineering and Urban Planning labs.

B. Library Usage:

Students should be encouraged to use library technical resources during the thesis development.

9- List of References:

The readings for the thesis work are selected by the individual student in collaboration with the supervisor.

10- Program Coordination Committee:

Programme coordinator:

Head of the Department: **Prof. Dr. Ashraf Abd-Elfatah El-Mokadem**

Signaure

Date:

UPL 614

Directed Research

Course Specification

Program on which the course is given	Ph.D in ARCHITECTURAL ENGINEERING AND URBAN PLANNING
Major or minor element of program	Major
Department offering the program	Architectural Engineering
Department offering the course	Architectural Engineering
Academic year/Level	Ph. D. Graduate Program
Date of specification approval	***2020***

A- Basic Information

Title:: Directed Research	**Code Symbol**: UPL 614	
Lecture	3 hours	
Tutorial / Laboratory		
Total	3 hours	By law 2000

B- Professional Information

1- Course Aims:

This course aims at:

- The course aims at developing the student's research skills in dealing with current urban planning problems.
- The course provides the students with the necessary professional skills to use strategic urban planning.
- The course guides students to prepare urban, economic and social surveys, to use SWOT analysis and to make proposals (Alternatives).

2- Course objectives

1. provide the student with a meaningful capstone research experience as a part of his or her professional preparation.
2. promote a student's increasing skill development and depth of inquiry, as well as growing independent research capability
3. apply understanding of the discipline to identify or shape research questions and apply skills and techniques learned to the research project.
4. Learn how to gather data, synthesize relevant literature, analyze, and interpret data.

3- Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	ILOs Intended Learning Outcomes	Course ILOs
A. Knowledge and understanding المعرفة والفهم		
A1-Theories, basics and specialized knowledge in the field of learning, as well as other related subjects.	a1-1 Understand the theories, basics and specialized knowledge pertinent to a PhD thesis in the research field.	a1-1-1 Identify the principles of Strategic Urban Planning. a1-1-2 List different types of Survey.
A2- Basics, methodologies and ethics of scientific research and its different tools.	a2-1. Recognize Basics, methodologies and ethics of scientific research and its different tools.	a2-1-1 Define the basic methods of analysis such as SWOT Analysis a2-1-2 Estimate the basic skills of making Proposals.
B. Intellectual skills مهارات ذهنية		

B1- Analyze and evaluate information in the field of specialization, and relate it to solve problems and formulate theories.	b1-1 Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	b1-1-1 Demonstrate students' technical expertise, independent learning abilities and appraisal skills.
B2- Solve specialized problems with available givens and parameters.	b2-1 Apply broad knowledge of modern computational methods and think critically to solve unstructured problems (with complete or incomplete data) related to Architectural Engineering and Urban Planning.	b2-1-1 Compare, analysis and evaluate some of the issues involved in applications of case studies.
C. Professional and practical skills مهارات تطبيقية ومهنية		
C1- Master the basic as well as the latest professional skills in the field of specialization.	c1-1 Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1 Improve problem solving skills.
C2- Write and evaluate technical and professional reports.	c2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning.	c2-1-1 Assess the analytical studies that could affect his research.
C3- Evaluate and development the means and tools available in the field of practice.	c3-1 Evaluate methods and tools reported in a specified published articles and researches related to Architectural Engineering and Urban Planning field.	c3-1-1 Use the appropriate research methods.
D. General and transferrable skills مهارات عامة		
D2- Use information technology to enhance his/her professional practice	d2-1Employ the information technology skills to serve his / her career development.	d2-1-1 Use literature review to collect the data that he needs.
D3- Educating and evaluating others.	d3-1 Design standards to evaluate others performance.	d3-1-1 Use the analytical methods that could be applied in his research

D4- Use different sources to obtain knowledge and information.	d4-1 Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1 Develop oral communication skills.

4- Course Contents

Topic	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*
		Lec.	**Tut.**	**Lab.**	
Current Urban Problems	12	12	-	--	a1-1-1, a1-1-2
How to obtain Data and Information	12	12	-	--	a2-1-1, a2-1-2, c1-1-1, d2-1-1
Preparing urban, economic and social Surveys	12	12	-	--	a1-1-2, b1-1-1
SWOT Analysis	12	12	-	--	a2-1-2, b2-1-1, c2-1-1, d2-1-1
Strategic Urban Planning	12	12	-	--	a1-1-1, b2-1-1, c1-1-1
Making Proposals (Alternatives)	12	12	-	--	a2-1-2, b2-1-1, c3-1-1, d2-1-1
Writing Recommendations Application on Comprehensive Projects	18	18			a1-1-2, a2-1-2, b1-1-1, b2-1-1, c2-1-1, d3-1-1, d4-1-1
Total	90	90	-	--	

5- Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Programme Academic Standards that the course	A1 (a1-1-1, a1-1-2) A2 (a2-1-1, a2-1-2)	B1 (b1-1-1) B2 (b2-1-1)	C1 (c1-1-1) C2 (c2-1-1)	D2 (d2-1-1) D3 (d3-1-1)

contribute in achieving			C3 (c3-1-1)	D4 (d4-1-1)

6- Course Subject Area:

A	B	C	D	E	F	G	
Humanities and Social Science	**Mathematics and Basic Sciences**	**Basic Engineering Science**	**Applied Engineering And Design**	**Computer Applications and ICT**	**Projects and practice**	**Disccretionry subjects**	**Total**
70%	**---**	**---**	**----**	**20%**	**10%**		**100 %**

7- Course Topics.

Topic No.	Topic	Weeks
1st	**Current Urban Problems**	1-4
2nd	**How to obtain Data and Information**	5-8
3rd	**Preparing urban, economic and social Surveys**	9-12
4th	**SWOT Analysis**	13-16
5th	**Strategic Urban Planning**	17-19
6th	**Making Proposals (Alternatives)**	20-23
7th	**Writing Recommendations** **Application on Comprehensive Projects**	24-30

8- ILOs Matrix Topics

Course topics	**1st**	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**
Course ILOs	**Knowledge & Understanding**						
a1-1-1 Identify the principles of Strategic Urban Planning.	X				X		
a1-1-2 List different types of Survey.	X						X

a2-1-1 Define the basic methods of analysis such as SWOT Analysis		X					
a2-1-2 Estimate the basic skills of making Proposals.		X		X		X	X
Course ILOs	**Intellectual skills**						
b1-1-1 Demonstrate students' technical expertise, independent learning abilities and appraisal skills.			X				X
b2-1-1 Compare , analysis and evaluate some of the issues involved in applications of case studies.				X	X	X	X
Course ILOs	**Professional and practical skills**						
c1-1-1 Improve problem solving skills.		X					
c2-1-1 Assess the analytical studies that could affect his research.					X		X
c3-1-1 Use the appropriate research methods.						X	
Course ILOs	**General and transferrable skills**						
d2-1-1 Use literature review to collect the data that he needs.		X			X		
d3-1-1 Use the analytical methods that could be applied in his research						X	X
d4-1- Develop oral communication skills.							X

9- Teaching and Learning Method:

Course Intended learning outcomes (ILOs)		Teaching and Learning Method												
		Lecture	Presentation and Movies	Discussion	Tutorial	Problem solving	Brain storming	Projects	Report	Self-learning	Cooperative	Discovering	Computer Simulation	Practical Experiments
Knowledge & understanding	**A1-1-1**	X	X	X					X					
	A1-1-2	X	X											
	A2-1-1	X	X	X			X				X			

	A2-1-2	X	X											
Intellectual Skills	**B1-1-1**	X	X											
	B2-1-1	X	X	X			X					X		
Professional Skills	**c1-1-1**		X	X					X					
	c2-1-1	X	X				X							
	C3-1-1	X		X					X			X		
General Skills	**D2-1-1**	X	X	X								X		
	D3-1-1	X				X					X			
	D4-1-1	X	X											

10- Assessment

9.1 Assessment Methods

Final Written Examination : to assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

9.2 Assessment Schedule and Grades Distribution

Assessment Method	Percentage	week
Final Examination	100	31
Total	100%	

11- Facilities required for teaching and learning

- video projector – Slide projector – data show

A. laboratory Usage:

B. Library Usage:

Students should be encouraged to use library technical resources in the preparation of laboratory reports and oral presentation. At least one oral presentation should involve a significant component of library research to encourage this component of study.

12- List of references:

11.1- Text & Recommended books:

1. Brown, V. A. (2012). Integrated mission-directed research: experiences from environmental and natural resource management.
2. Antje Hannemann, (2008) Strategic Urban Planning & Municipal Governance. VDM Verlag.
3. F. Hala, (2007) A SWOT analysis of strategic urban development planning: The case of Dar es Salaam city in Tanzania. Elsevier (Digital).
4. Antonia Lyard, SiminDavoudi and Susan Batty, (2001) Planning for A Sustainable Future. Taylor & Francis.

11-2- Periodicals, Web Sites, etc.

- International Planning Studies, Volume 5, Number 1, Feb 2000, Routledge
- http://www.cities-localgovernments.org
- http://en.wikipedia.org/wiki/Strategic_Urban_Planning
- http://www.urbis.com.au
- Performing A SWOT Analysis, pdf file, www.managers.org.uk/mic

13- Program Coordination Committee:

Course Coordinator:	**Assoc. Prof. Dr.** Naglaa Ali Megahed
Program Coordinator	**Dr.** Basma Nashaat El-Mowafy
Head of the Department:	**Prof. Dr.** Ashraf Abd-Elfatah El-Mokadem

Date: 10-2020

UPL 619

MANAGEMENT OF URBAN ENVIRONMENT

Course Specification

Program on which the course is given	Ph.D in Architecture and Urban Planning
Major or minor element of program	Major
Department offering the program	Architecture and Urban Planning
Department offering the course	Architecture and Urban Planning
Academic year/Level	Ph.D Graduate Program
Date of specification approval	***2020***

A- Basic Information

Title: Management Of Urban Environment	**Code Symbol**: UPL 619	
Lecture	3 hours	
Tutorial/ Laboratory	---------	
Total	3hours	By law 2000

C- Professional Information

1. Course Aims:

This course aims to acquire the student with the essential knowledge to understand of environmental evaluation studies and essential issues of Environmental Evaluation of Projects. The course aims to identify the Environmental Impact Assessment (EIA) of Projects in Egypt and Environmental Effects on Urban Settlement : Noise, Air, and Water Pollution, Industrial West, Infrastructure. The course provides the students with the necessary practical and professional skills concerning how to control of these Impacts and achieving a High Standard of Services needed for an Urban Settlement, the analytical studies of Environmental Impact

Assessment (EIA) of Projects and to enhance their perception of techniques of environmental evaluation of Projects and The study of The Proposed Methods of Management of These Impacts in The Urban Environment.

2. Course objectives

1. identify the Environmental Impact Assessment (EIA) of Projects in Egypt and environmental effects on urban settlement.
2. provide the students with the practical and professional skills concerning how to control of these impacts and achieving a high standard of services needed for an urban settlement, the analytical studies of Environmental Impact Assessment (EIA) of Projects and
3. Enhance students perception of techniques of environmental evaluation of Projects.

3. Intended Learning Outcomes (ILOs) for the whole program

This course is designed to achieve the above objectives through the following Intended **Learning Outcomes (ILOs)**:

NAQAAE Academic Reference Standards (ARS)	ILOs	Subjects Covering such ILOs
A . Knowledge and Understanding		
A1. Theories, basics and specialized knowledge in the field of learning, as well as the subjects that affect his/her professional practice.	a1-3- Understand the theories, basics and specialized knowledge in the field of Urban Planning.	a1-3-1-Recognize environmental evaluation processes and techniques a1-3-2- Recognize the review system of EIA . a1-3-3- Recognize the abstracts from Law No.4 of 1994 and its Executive Regulations relating to EIA.
A5- The knowledge related to the impact of professional practice on the Environment, and the work carried out for conservation and preservation.	a5-1-Recognize the interaction between Architectural Engineering and Urban Planning and surrounding environment.	a5-1-1- Recognize Necessary practical and professional skills concerning the differentiation of the Environmental Impact Assessment of Projects.
B. Intellectual Skills		

B1- Analyze and evaluate the information in the field of specialization, and relate it to solve problems.	b1-1- Demonstrate an investigatory and analytic thinking approach (Problem solving) to solve problems related to Architectural Engineering and Urban Planning.	b1-1-1- Assess the review system of EIA. b1-1-2- Differentiate among the list approach for the review system of EIA. b1-1-3- Maintain the Sectarian Guidelines for Establishments that need full EIA.
B2- Solve specialized problems with lack of some data and variables, (incomplete data).	b2-1- Apply broad knowledge of modern computational methods and think critically to solve unstructured problems (with incomplete data) related Architectural Engineering and Urban Planning.	b2-1-1- Maintain problem solving skills.
C. Professional and Practical Skills		
C1- Master the basic as well as the latest professional skills in the field of specialization.	c1-1- Express competence skills, such as identifying, formulating, analyzing, and creating engineering solutions, using latest engineering techniques, skills, and tools.	c1-1-1- Identify the review system of EIA presentation skills. c1-1-2- Use the Sectarian Guidelines for Establishments that need full EIA. c1-1-3- Utilize the review system of EIA studies skills for medium scale projects. c1-1-4- Use different levels of EIA required.
C2- Write and evaluate technical and professional reports.	c.2-1 Write and evaluate a professional report on specialized related to Architectural Engineering and Urban Planning	c2-1-1- Employ the environmental assessment report preparation.
D. General and Transferrable Skils		
D1- Communicate effectively using all methods.	d1-1- Communicate effectively with the scientific community, research team and technocrats involved in multinational companies in the related fields to	d1-1-1- Prepare selected parts of the course in oral seminar using available displaying equipments.

	Architectural Engineering and Urban Planning.	
D4- Use different sources to obtain knowledge and information.	d4-1- Use different sources of information like library, internet access facilities, etc. to upgrade and enhance their conceptual knowledge.	d4-1-1- Prepare short essays in certain topics of the course. d4-1-2- Use text- book to collect the data that he needs.
D5- Work as team leader as well as a member in larger teams	d5-1- Practice team working, and lead teams in specified professional jobs.	d5-1-1- Work in groups to assess the ability to creatively solve problems.

4. Course Contents

Topic	*Total Hours*	*Contact hrs*			*Course ILOs Covered (By No.)*	Topic
		Lec.	Tut.	Lab.		
INTRODUCATION: 1. Definition. 2. The need/ purpose of EIA.	3	3			a1-3-1, a1-3-2	1
Legislative frameworks: The abstracts from Law No.4 of 1994 and its Executive Regulations relating to EIA.	3	3			a1-3-1, a1-3-3, b-1-3, d4-1-1, d4-1-2	2
The EIA process: -What is Environmental Impact Assessment. - Description of the project. -Description of the environmental Background and Identification of Impacts. - Considering Alternatives. - Screening. - Scoping. -Prediction of Impacts and Evaluation of Mitigation.	6	6			a1-3-1, a1-3-2, b1-1-1, d4-1-1, d4-1-2	3
The revew system of EIA: - The list approach: a- The white list projects. b- The grey list projects. c- The black list projects.	3	3			a3-1-1, a5-1-1, b1-1-1, b1-1-2, c1-1-1, c1-1-2, c1-1-4, d4-1-1, d4-1-2	4
Computer Tools for Environmental Evaluation of Projects.	3	3			a1-3-1, d4-1-2	5
Guidelines for the EIA Report: -Non- Technical Executive Summary. -Description of the proposed Urban development.	6	6			a1-3-1, b1-1-3, c2-1-1, d4-1-2	6

-Background Information. -Description of Existing Environment the Baseline. -Prediction of Impacts and Evaluation of Significant Environment Effects. - Mitigation - Conclusions. - References.						
Apply Environmental Evaluation of Projects for medium scale projects (Industrial Establishments, Tourism and Urban Development … etc.) - Seminar/ Presentation for Environmental Evaluation of Projects exercises.	12	12			b1-1-1, b1-1-2, b2-1-1, c1-1-2, c1-1-3, c2-1-1, d1-1-1, d4-1-2, d5-1-1	7
Final submission of the exercise.	3	3			c1-1-1, c1-1-2, , c2-1-1, d4-1-2	8
Total	90	90				

5. Relationship between the course and the programme

Field	National Academic Reference Standard(NARS)			
	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
Program Academic Standards that the course contribute in achieving	A1 (a1-3), A2 (a5-1).	B1 (b1-1), B2 (b2-1).	C1 (c1-1), C2 (c2-1).	D1 (d1-1), D4 (d4-1), D5 (d5-1).

6. Course Subject Area:

A	B	C	D	E	F	G	
Humanities and Social Science	Mathematics and Basic Sciences	Basic Engineering Science	Applied Engineering And Design	Computer Applications and ICT	Projects and practice	Disccretionry subjects	Total
20%	__	10%	__	20%	50%	__	100%

7. Course Topics

Topic No.	Topic	Weeks
1st	**INTRODUCATION:** 1. Definition. 2. The need/ purpose of EIA.	**1-2**

2nd	**Legislative frameworks:** The abstracts from Law No.4 of 1994 and its Executive Regulations relating to EIA.	**3-6**
3rd	**The EIA process:** - What is Environmental Impact Assessment. - Description of the project. - Description of the environmental Background and Identification of Impacts. - Considering Alternatives. - Screening. - Scoping. - Prediction of Impacts and Evaluation of Mitigation.	**7-9**
4th	**The review system of EIA:** - The list approach: a- The white list projects. b- The grey list projects. c- The black list projects.	**10-14**
5th	**Computer Tools for Environmental Evaluation of Projects.**	***15-17***
6th	**Guidelines for the EIA Report:** -Non- Technical Executive Summary. -Description of the proposed Urban development. -Background Information. -Description of Existing Environment the Baseline. -Prediction of Impacts and Evaluation of Significant Environment Effects. - Mitigation: a- Mitigation Strategy. b-Specific Mitigation Measures. c-Environmental Management plan. - Conclusions. - References.	**18-20**
7th	**Apply Environmental Evaluation of Projects for medium scale projects** (Industrial Establishments, Tourism and Urban Development … etc.) - Seminar/ Presentation for Environmental Evaluation of Projects exercises.	**21-25**
8th	**Final submission of the exercise.**	**26-30**

8. Matrix Topics

Course Intended Learning Outcomes (ILOs)	Course topics

		1st	2nd	3rd	4th	5th	6th	7th	8th
A-Knowledge & Understanding	a1-3-1-Recognize environmental evaluation processes and techniques	X	X						
	a1-3-2- Recognize the review system of EIA .	X		X					
	a1-3-3- Recognize the abstracts from Law No.4 of 1994 and its Executive Regulations relating to EIA.		X			X			
	a5-1-1- Recognize Necessary practical and professional skills concerning the differentiation of the Environmental Impact Assessment of Projects.				X			X	X
B-Intellectual Skill	b1-1-1- Assess the review system of EIA.			X	X			X	X
	b1-1-2- Differentiate among the list approach for the review system of EIA.				X			X	X
	b1-1-3- Maintain the Sectarian Guidelines for Establishments that need full EIA.						X	X	X
	b2-1-1- Maintain problem solving skills							X	X
C-Professional Skill	c1-1-1- Identify the review system of EIA presentation skills.				X			X	X
	c1-1-2- Use the Sectarian Guidelines for Establishments that need full EIA.				X			X	X
	c1-1-3- Utilize the review system of EIA studies skills for medium scale projects.							X	X
	c1-1-4- Use different levels of EIA required.				X	X			

	c2-1-1- Employ the environmental assessment report preparation.						X	X	X
D- General Skills	d1-1-1- Prepare selected parts of the course in oral seminar using available displaying equipments.							X	X
	d4-1-1- Prepare short essays in certain topics of the course.		X	X	X				
	d4-1-2- Use text- book to collect the data that he needs.		X	X	X	X	X	X	X
	d5-1-1- Work in groups to assess the ability to creatively solve problems.							X	X

9. Teaching and Learning Method

Course Intended learning outcomes (ILOs)		**Teaching and Learning Method**												
		Lecture	**Presentation and Movies**	**Discussion**	**Tutorial**	**Problem solving**	**Brain storming**	**Projects**	**Site visits**	**Self-learning**	**Cooperative**	**Discovering**	**Modeling**	**Playing**
A-Knowledge & Understanding	a1-3-1	X		X										
	a1-3-2	X		X										
	a1-3-3	X												
	a5-1-1	X		X										
B-Intellectual Skill	b-1-1	X		X										
	b1-1-2	X		X										
	b1-1-3	X		X										
	b2-1-1						X							
	c1-1-1	X		X										

C-Professional Skill	c1-1-2	X		X										
	c1-1-3	X												
	c1-1-4	X		X										
	c2-1-1	X		X						X				
D- General Skills	d1-1-1		X	X										
	d4-1-1		X	X			X		X				X	
	d4-1-2								X				X	
	d5-1-1			X					X					

10.Teaching and learning method for low capacity and outstanding Students:

For low capacity students	Assign a portion of the office hours for those students.
	Give them specific tasks.
	Repeat the explanation of some of the material and tutorials.
	Assign a teaching assistance to follow up the performance of this group of students.
For outstanding Students	Give them some research topics to be searched using the internet and conduct presentation.
	Encourage them to take parts in the running research projects.

10. Assessment

Assessment Methods

Final Written Examination To assess students' knowledge, understanding, analysis, creativity, problem solving, and problem identification.

Assessment Schedule and Grades Distribution

Assessment Method	Percentage	week
Final Examination	-	-
Mid term written Examination1	-	-
Attendance	-	-
End of term written examination	100	31

Total	100%	

11. Facilities required for teaching and learning:

Lecture room facility:

The lecture room is provided by a data show for illustrating the subjects during lecturing.

12. List of references:

Course notes : None

Text books:

مدحت أبو النصر ,ياسمين مدحت محمد ، (2017) ، التنمية المستدامة :مفهومها - أبعادها – مؤشراتها.

Pazouki, M., Jozi, S. A., & Ziari, Y. A. (2017). Strategic management in urban environment using SWOT and QSPM model. Global Journal of Environmental Science and Management, 3(2), 207-216.

Younos, T., & Parece, T. E. (Eds.). (2016). Sustainable water management in urban environments (Vol. 47). Springer.

جمهورية مصر العربية – رئاسة مجلس الوزراء – جهاز شئون البيئة- قطاع الإدارة البيئية – دليل أسس وإجراءات تقييم التأثير البيئ – 2017

Recommended books

وزارة الدولة لشئون البيئة – جهاز شئون البيئة – تقرير حالة البيئة فى مصر 2017 .

تعديل عام 2017 لقانون البيئة رقم (4) لسنة 1994 ولائحته التنفيذية.

Deakin, M., Curwell, S., Lombardi, P. (2001), Sustainable Urban Development: the framework and directory of assessment Methods, The Bequest workshop, Lipson.

Periodicals, Web sites, etc

- www.sustainable.doe.gov/buildings/gbintro.shtml
- www.estone.net/edc/greendes.htm

Program Coordination Committee:

Course Coordinator: **Prof. Dr.** Ashraf Abd-Elfatah El-Mokadem

Program Coordinator **Dr.** Basma Nashaat El-Mowafy

Head of the Department: **Prof. Dr.** Ashraf Abd-Elfatah El-Mokadem

Date: 10-2020