Course Specification

Course Code: ARE 4101 **Course Title: Architectural Design (6)**

1. Basic information

Program Title	Architecture Engineering			
Department offering the program	Architecture Engineering			
Department offering the course	Architecture Engineering			
Course Code	ARE 4101			
Year/level	Fourth year / Fifth Level			
Specialization	**Major**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	0	10	0	10

2. Course Aims

No.	Aim
1	Provide the students with the capacity to prepare flexible and ecologically responsible designs by understanding modern structural and technological designs. (AM5.1)

3. Course Learning Outcomes (CLOs)

Clo21	Prepare environmentally responsible designs to preserve and rehabilitate the environment of the project.
Clo23	choose the structural design, construction, technology used
Clo24	Transform design concepts into buildings and integrating plans into comprehensive planning within restrictions: Financing issues and Project management
Clo25	Transform design concepts into buildings and integrating plans within restrictions with regulations

4. Course Contents

Topics	Week
Introduction of the project	1
Research for the Project	
Birth of the Prophet Vacation	2
Research Presentation + Skiz1	
Layout 1/500	3
Layout 1/500	
Layout 1/500 + Ground floor plan 1/400	4
Layout 1/500 + Ground floor plan 1/400	
Layout 1/500 + Ground floor plan 1/400	5
Layout 1/500 + Ground floor plan 1/400	
Skiz1 (Layout 1/500 + Ground floor plan 1/200 + sections 1/200)	6
Revision Skiz1 (Layout 1/500 + Ground floor plan 1/200 + sections 1/200)	
sections 1/200 + Elevations 1/200	7

sections 1/200 + Elevations 1/200	
sections 1/200 + Elevations 1/200	8
sections 1/200 + Elevations 1/200	
Skiz 2(Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective)	10
Revision Skiz 2(Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective)	
All Project observation	11
All Project observation	
All Project observation	12
All Project observation	
All Project observation	13
All Project observation	
All Project observation	14
All Project observation	
Semifinal project	15
All Project observation	

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
CLO21	√		-	√		√	-	√	-			-
CLO23		√	-		√		-	√	-	√	√	-
CLO24		√	-		√		-	√	-	√	√	-
CLO25		√			√					√	√	

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	-
2	Written exam	**Clo21, Clo23, Clo24**
3	Discussions	**Clo24**
4	Mid Term Exam	**Clo26, Clo27, Clo28**
5	Class works	**Clo21, Clo23, Clo24**
6	Projects	**Clo21, Clo23, Clo24, Clo25**
7	Researches	**Clo24**
8	Reports	-
9	Presentations	**Clo24**
10	Quiz	-

11	Skiz	**Clo21, Clo23, Clo24, Clo25**

6.2 Assessment Schedule

No.	Assessment Method	Weeks
1	Attendance	-
2	Written exam	16
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	weekly
6	Projects	15
7	Researches	2
8	Reports	-
9	Presentations	2
10	Quiz	-
11	Skiz	6,11

6.3 Weighting of Assessments

	Assessment Method	Weights%	Weights	Weights%	Weights
Teacher Opinion	Discussions	60	60	5	5
	Class works			10	10
	Projects			10	10
	Researches			3	3
	Presentations			2	2
	Skiz			10	10
	Mid-term exam			20	20
Final Exam	Written exam	40	40	40	40
Total		100	100	100	100

7. List of References

[1] Lee Hwa-Jeong, (2020), "ACA: Architecture competition annual. Vol 14 (Education / Culture/ Welfare & Sports)", Published by Archiworld Co.Ltd, Seoul, South Korea , ISBN-13: 978-8957708194.

[2] Frohlich,A. & Lippok,S., (2019), "Plans and Images: An Archive of Projects on Typology in Architecture" 2013-2018, Germany, ISBN: 9783038601388.

[3] Ernst Neufert, Peter Neufert, Bousmaha Baiche, Nicholas Walliman, (2012), "Neuferts Architects Data 4th Edition", published by Wiley–Blackwell, ISBN-13: 978-1405192538.

8. Facilities required for teaching and learning

Lecture/Classroom
White board
Google Class Room
Data show

9. Matrix of Course Content with Course LO's

Topics	Aim	CLO's
Introduction of the project Research for the Project	1	**Clo21**
Birth of the Prophet Vacation Research Presentation + Skiz1	1	**Clo21, Clo23**
Layout 1/500 Layout 1/500	1	**Clo21, Clo23**
Layout 1/500 + Ground floor plan 1/400 Layout 1/500 + Ground floor plan 1/400	1	**Clo21, Clo23**
Layout 1/500 + Ground floor plan 1/400 Layout 1/500 + Ground floor plan 1/400	1	**Clo21, Clo23**
Skiz1 (Layout 1/500 + Ground floor plan 1/200 + sections 1/200) Revision Skiz1 (Layout 1/500 + Ground floor plan 1/200 + sections 1/200)	1	**Clo21, Clo23**
sections 1/200 + Elevations 1/200 sections 1/200 + Elevations 1/200	1	**Clo21, Clo23, Clo24**
sections 1/200 + Elevations 1/200 sections 1/200 + Elevations 1/200	1	**Clo21, Clo23, Clo24**
Skiz 2(Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective) Revision Skiz 2(Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective)	1	**Clo21, Clo23, Clo24, Clo25**
All Project observation All Project observation	1	**Clo21, Clo23, Clo24, Clo25**
All Project observation All Project observation	1	**Clo21, Clo23, Clo24, Clo25**
All Project observation All Project observation	1	**Clo21, Clo23, Clo24, Clo25**
All Project observation All Project observation	1	**Clo21, Clo23, Clo24, Clo25**

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo11	Create architectural, urban and planning designs that meet aesthetic and technical requirements using Adequate knowledge of history, related fine arts, culture, local heritage, technologies and human sciences.	CLO21	Create architectural, urban and planning designs that meet aesthetic and technical requirements
Plo12	Produce designs that meet the requirements of building users by understanding the relationship between people and buildings, and between the buildings and their surrounding environment, with the	CLO23	Produce designs that meet the requirements of building users
		CLO24	Deal with the relation between people, buildings, and their surrounding environment

	necessity of linking the buildings and the spaces between them to the scale of humanity and its needs	CLO25	Produce designs with the scale of humanity and its needs

Title	Name	Signature
Course coordinator	**Prof. Dr. Ahmed Yehia** **Prof. Dr. Usama Nassar**	
Head of Department	**Associa. Prof. Reham Othman**	
Date of Approval	**1/10/2022**	

برنامج الهندسة المعمارية
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بالتجمع الخامس

Course Specification

Course Code: ARE 4104 **Course Title: Feasibility Studies & Project Management**

1. Basic information

Program Title	Architecture Engineering			
Department offering the program	Architecture Engineering			
Department offering the course	Architecture Engineering			
Course Code	ARE 4104			
Year/level	Forth year / Fifth level			
Specialization	**Minor**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	2	1	-	3

2. Course Aims

No.	Aim
1	Use data analysis, objective engineering judgment (AM1.1)
2	Use scientific methods that ensure meeting the needs of present and future generations in terms of economic aspects (AM2.2)
3	link between the participating sectors in the construction and development operation of urban communities and between the graduates of the program in the fields of practical training, entrepreneurship, and project management. (AM4.1)

3. Course Learning Outcomes (CLOs)

Clo4	assess data by using statistical analyses to draw conclusions.
Clo5	evaluate findings by using statistical analyses and objective engineering judgment.
Clo12	Practice research techniques and methods of investigation as an inherent part of learning.
Clo28	Transform design concepts into buildings and integrating plans into comprehensive planning within restrictions: Financing issues and Project management
Clo29	integrate plans within restrictions with regulations

4. Course Contents

Topics	Week

Studying the Importance of feasibility studies in making decisions.	1
Studying Types of feasibility studies.	2
Analyzing case studies of feasibility studies in architecture projects.	3
Educating introduction to management, Historical view and evolution of concepts.	4-5
Educating Basic Managerial Functions.	6
Studying project Management knowledge area	7
Studying BOQ.	8
Educating the Cost analysis, estimating cost based on previous projects.	10
Create Planning and Time scheduling of project activities by Bar chart.	11
Create Planning and Time scheduling of project activities by CPM method.	12
Investigates and explores project management processes.	13
Developing the skills of making alternative plans to avoid risks concerning all related design aspects and approaches.	14
Select appropriate solutions based on analytical thinking for all related disciplines to architecture.	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo4	√	√	-	√	-	√	-	√	-	-	-	-
Clo5	√	√	-	√	-	√	-	√	-	-	-	-
Clo12	√	√	-	√	-	√	-	√	-		-	-
Clo28	√	-	-	-	-	-	-	√	-	-	√	-
Clo29	√	-	-	-	-	-	-	√	-	-	-	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	-
2	Written exam	**Clo4, Clo12, Clo28**
3	Discussions	**Clo4,Clo5, Clo12, Clo29**
4	Mid Term Exam	**Clo4,Clo5, Clo12**
5	Class works	**Clo4,Clo5, Clo12, Clo29**
6	Projects	-

7	Researches	**Clo4,Clo5, Clo12, Clo29**
8	Reports	-
9	Presentations	**Clo4,Clo5, Clo12**
10	Quiz	**Clo4**
11	Skiz	-

6.2 Assessment Schedule

No.	Assessment Method	Weeks
1	Attendance	-
2	Written exam	16
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	7-12
6	Projects	-
7	Researches	3-14
8	Reports	-
9	Presentations	3-14
10	Quiz	5
11	Skiz	-

6.3 Weighting of Assessments

	Assessment Method	Weights%	Weights	Weights%	Weights
Teacher Opinion	Discussions	%50	50	%5	5
	Class works			%5	5
	Researches			%10	10
	Presentation			%5	5
	Quiz			%5	5
	Mid-term exam			%20	20
Final Exam	Written exam	%50	50	%50	50
Total		%100	100	%100	100

7. List of References

- Michael Kulwin, "Feasibility Studies in Construction Projects: Practice and Procedure". Practical Construction Guides, Informa Law, 2011, ISBN: 978-0415715263.
- DAVID CHAPELL & ANDREW WILLS," The Architect in Practice" Feasibility Study & Project Management: A Practical Guide - Arabic Edition. Paperback – January 2, 2019, ISBN: 978-1-118-90770-2
- A Guide to the Project Management Body of Knowledge (PMBOK® Guide), by Project Management Institute , . Seventh Edition 2021, ISBN: 978-1628251845.

- د. ابراهيم عبد الرشيد ,"اداره مشروعات التشييد "- 2009.

8. Facilities required for teaching and learning

Lecture/Classroom
White board
Data show

9. Matrix of Course Content with Course LO's

Topics	Aim	CLO's
Studying the Importance of feasibility studies in making decisions.	1	**Clo5**
Studying Types of feasibility studies.	1	**Clo5**
Analyzing case studies of feasibility studies in architecture projects.	1	**Clo4,Clo5**
Educating introduction to management, Historical view and evolution of concepts.	2	**Clo12**
Educating Basic Managerial Functions.	2	**Clo12**
Studying project Management knowledge area	2	**Clo4**
Studying BOQ.	2	**Clo12**
Educating the Cost analysis, estimating cost based on previous projects.	2	**Clo12, Clo28**
Create Planning and Time scheduling of project activities by Bar chart.	1-2	**Clo4,Clo12, Clo28**
Create Planning and Time scheduling of project activities by CPM method.	1-2-3	**Clo4,Clo12, Clo28**
Investigates and explores project management processes.	2-3	**Clo4**
Developing the skills of making alternative plans to avoid risks concerning all related design aspects and approaches.	2-3	**Clo12, Clo28, Clo29**
Select appropriate solutions based on analytical thinking for all related disciplines to architecture.	2-3	**Clo12, Clo28, Clo29**

10. Matrix of Program LOs with Course Los

Program LOs	Course Los

Plo2	Develop and conduct appropriate experimentation and/or simulation, analyse and interpret data, assess, and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions.	**Clo4**	assess data by using statistical analyses to draw conclusions.
		Clo5	evaluate findings by using statistical analyses and objective engineering judgment.
Plo5	Practice research techniques and methods of investigation as an inherent part of learning.	**Clo12**	Practice research techniques and methods of investigation as an inherent part of learning.
Plo14	Transforming design concepts into buildings and integrating plans into comprehensive planning within restrictions: Financing Project - Project management - Cost control - Project delivery methods, having sufficient knowledge relevant industries, organizations, regulations and procedures.	**Clo28**	Transform design concepts into buildings and integrating plans into comprehensive planning within restrictions: Financing issues and Project management
		Clo29	integrate plans within restrictions with regulations

Title	Name	Signature
Course coordinator	**Assocc. Prof. Reham Othman**	
Head of Department	**Assocc. Prof. Reham Othman**	
Date of Approval	**1/10/2022**	

برنامج الهندسة المعمارية
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بالتجمع الخامس

Course Specification

Course Code: ARE 4103 **Course Title: Housing**

1. Basic information

Program Title	Architecture department			
Department offering the program	Architecture department			
Department offering the course	Architecture department			
Course Code	ARE 4103			
Year/Level	Fourth year /Fifth Level			
Specialization	**Major**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	4	2	-	6

2. Course Aims

No.	Aim
1	Work efficiently by using data analysis and simulation to produce innovative design engineering solutions in many practices field of Neighbourhood design and executive architecture engineering and urban planning at the local sites, and able to plan, supervise and follow up the implementation of housing projects. (AM1)

3. Course Learning Outcomes (CLOs)

Clo15	Function efficiently as an individual and as a member of multi-disciplinary and multi-cultural teams.
Clo21	Create architectural, urban and planning designs that meet aesthetic and technical requirements
Clo23	Produce designs that meet the requirements of building users
Clo24	Deal with the relation between people, buildings, and their surrounding environment
Clo25	Produce designs with the scale of humanity and its needs

4. Course Contents

Topics	Week
Definitions of shelter and housing - basic human needs and their relationship to population.	1
Planning and housing regulations	2
Housing model design considerations	3
Sustainable neighborhoods	4
Laws regulating the planning and design of residential areas.	5
The basics of classifying residential models	6

The basics of designing residential models (1)	7
Planning criteria for calculating the carrying capacity of a housing project	8
The housing problem in Egypt (causes and manifestations) + Research	10
Attitudes to solving the housing problem in Egypt (politics of preparation - and empowerment)	11
The basics of designing residential models (2)	12
Classifications of roads in the neighborhood + Presentation of Research	13
Submitting Semifinal Project	14
Submitting Final Project	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo15	-	-	-	√		√		√	√	√	√	-
Clo21					√				√			
Clo23	√	-	-	√	√	√	√	√	√	√	√	-
Clo24	√	-	-		√		√	√	√	-	√	-
Clo25	-	-	-	-	√	√	-	-	-	-	-	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	-------
2	Written exam	**Clo15, Clo21, Clo23, Clo24, Clo25**
3	Discussions	**Clo15, Clo23, Clo24**
4	Mid Term Exam	**Clo15, Clo21, Clo23, Clo24**
5	Class works	**Clo15, Clo21, Clo23, Clo24**
6	Projects	**Clo21, Clo23, Clo24, Clo25**
7	Researches	**Clo15, Clo23**
8	Reports	-
9	Presentations	**Clo15, Clo23, Clo25**
10	Quiz	-
11	Skiz	-

6.2 Assessment Schedule		
No.	**Assessment Method**	**Weeks**
1	Attendance	-
2	Written exam	16
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	weekly
6	Projects	-
7	Researches	14,15
8	Reports	-
9	Presentations	13
10	Quiz	-
11	Skiz	-

6.3 Weighting of Assessments

	Assessment Method	**Weights%**	**Weights**	**Weights%**	**Weights**
Teacher Opinion	Discussions	60%	60	5%	5
	Class works			10%	10
	Projects			10%	10
	Researches			5%	5
	Presentations			10%	10
	Mid-term exam			20%	20
Final Exam	Written exam	40%	40	40%	40
Total		100%	100	100%	100

7. List of References

1. Didem Ekici, Jonathan Hale, Katharina Borsi, Nick Haynes," Housing and The City", 1st edition, Routledge, Taylor & Francis Group, UK,2022, SBN:9781003245216, 1003245218
2. Nagwa Ibrahim Mahmoud (Public Politics and Political Change in Egypt) Ibn Khaldoun Center for German Studies - Cairo - 1994
3.Milad Hana - Housing and the Trap (Problem and Solution) Cairo - 1988
4.N.J. Habraken – The Structure of the Ordinary: Form and Control in the Built Environmen, MIT Press ,2000, ISBN:9780262581950, 0262581957.
5.Geoffrey Randall," Housing Rights Guide "Shelter; Revised edition, England,2010, ISBN:9781903595992, 190359599.

8. Facilities required for teaching and learning

Lecture/Classroom
Whiteboard
Google classroom
Data show

9. Matrix of Course Content with Course LOs

Topics	Aim	LO's
Definitions of shelter and housing - basic human needs and their relationship to population.	1	**Clo23, Clo24**
Planning and housing regulations	1	**Clo23, Clo24**
Housing model design considerations	1	**Clo23, Clo24**
Sustainable neighborhoods	1	**Clo23, Clo24**
Laws regulating the planning and design of residential areas.	1	**Clo23, Clo24**
The basics of classifying residential models	1	**Clo23, Clo24**
The basics of designing residential models (1)	1	**Clo23, Clo24**
Planning criteria for calculating the carrying capacity of a housing project	1	**Clo23, Clo24, Clo25**
The housing problem in Egypt (causes and manifestations) + Research	1	**Clo15, Clo21, Clo23, Clo24, Clo25**
Attitudes to solving the housing problem in Egypt (politics of preparation - and empowerment)	1	**Clo23, Clo24**
The basics of designing residential models (2)	1	**Clo23, Clo24**
Classifications of roads in the neighborhood + Presentation of Research	1	**Clo23, Clo24**
Submitting Semifinal Project	1	**Clo15, Clo21, Clo23, Clo24, Clo25**
Submitting Final Project	1	**Clo15, Clo21, Clo23, Clo24, Clo25**

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo7	Function efficiently as an individual and as a member of multi-disciplinary and multi-cultural teams.	Clo15	Function efficiently as an individual and as a member of multi-disciplinary and multi-cultural teams.
Plo11	Create architectural, urban and planning designs that meet aesthetic and technical requirements using Adequate knowledge of history, related fine arts, culture, local heritage, technologies and human sciences.	Clo21	Create architectural, urban and planning designs that meet aesthetic and technical requirements
Plo12	Produce designs that meet the requirements of building users by understanding the relationship between people and buildings, and between the buildings and their surrounding environment, with the necessity of linking the buildings and the spaces between them to the scale of humanity and its needs	Clo23	Produce designs that meet the requirements of building users
		Clo24	Deal with the relation between people, buildings, and their surrounding environment
		Clo25	Produce designs with the scale of humanity and its needs

Title	Name	Signature
Course coordinator	**Assoc. Prof. Rania Badawy**	
Head of Department	**Assoc. Prof. Reham osman**	
Date of Approval	**1/10/2022**	

Course Specification

Course Code: ARE 4201 **Course Title: Project Studies & Technical Report**

1. Basic information

Program Title	Architecture Engineering			
Department offering the program	Architecture Engineering			
Department offering the course	Architecture Engineering			
Course Code	ARE **4201**			
Year/level	Forth year (5th Level)			
Specialization	**Major**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	1	1	0	2

2. Course Aims

No.	Aim
1	Apply the students for innovative and creative thinking, describing and solving design problems and requirements using scientific methods to analysis similar architectural projects for many aspects as social, cultural, environmental, and economic aspects as an entry point for achieving sustainable development and applying it to architectural and urban projects. (AM2.1)

3. Course Learning Outcomes (CLOs)

Clo15	Function efficiently as an individual and as a member of multi-disciplinary and multi- cultural teams.
Clo16	Communicate effectively – graphically, verbally and in writing – with a range of audiences using contemporary tools.
Clo19	Acquire new knowledge.
Clo20	Practice self, lifelong and other learning strategies.
Clo28	Transform design concepts into buildings and integrating plans into comprehensive planning within restrictions: Financing issues and Project management
Clo29	Transform design concepts into buildings and integrating plans within restrictions with regulations

4. Course Contents

Topics	Week
How to prepare the necessary introductive studies for the graduation project	1
Specify "Vision – Mission – Aim – Goal" of the project subject.	2
History and Growth of the project subject and its importance.	3
Types of the project subject and discuss the benefits and advantages.	4
Site Analysis and the location of the project.	5
Standards of the project component and spaces	6
Different styles of building	7
Sustainability design concept and environmental design	8
smart materials and solutions for sustainable architecture	10
Case studies of similar global projects.	11
Case studies of similar local projects.	12
Revision all the research	13
Semi Final Research	14
Oral Exam	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo15	-	-	-	√	-		√	√	√	-	√	-
Clo16	-	-	-	√	-	√		√		-	√	-
Clo19	√	-	-	√	-	√		√		-	√	-
Clo20	-	-	-	√	-	√		√		-	√	-
Clo28	√	-	-	√	-	√	√			-	√	-
Clo29	-	-	-	√	-	√			√	-	√	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	LOs
1	Attendance	-
2	Oral exam	-
3	Discussions	Clo15, Clo16, Clo19, Clo20
4	Mid Term Exam	Clo16, Clo28

5	Class works	-
6	Projects	-
7	Researches	Clo15, Clo16, Clo19, Clo20, Clo28, Clo29
8	Reports	-
9	Presentations	Clo16, Clo19, Clo20, Clo28, Clo29
10	Quiz	-
11	Skiz	-

6.2 Assessment Schedule

No.	Assessment Method	Weeks
1	Attendance	-
2	Oral exam	-
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	-
6	Projects	-
7	Researches	weekly
8	Reports	-
9	Presentations	weekly
10	Quiz	-
11	Skiz	-

6.3 Weighting of Assessments

	Assessment Method	Weights%	Weights	Weights%	Weights
Teacher Opinion	Discussions	60	60	10	10
	Researches			20	20
	Presentations			10	10
	Mid-term exam			20	20
Final Exam	Oral Exam	40	40	40	40
Total		100	100	100	100

7. List of References

[1] AM Awai, "Architecture Design Project Book: Create & Design your upcoming projects", Independently published, 2021, ISBN -13 : 979-8481920344
[2] Nicola Leonardi, "Contemporary Architecture in Detail: Sustainable architecture", HOAKI Publisher, 2021, ISBN: 9788417656430
[3] Joseph De Chiara, Michael J. Crosbie, "Time-Saver Standards for Building Types", 7th Edition, United States of America, 2001, ISBN:9780070163874, 0070163871.
[4] Ernst Neufert, Peter Neufert, Bousmaha Baiche, Nicholas Walliman, “Neufert s

Architects Data" 4th Edition", Wiley–Blackwell, 2012, ISBN:9781405192538, 1405192534.
[5] Janet Owens, "Report Writing", published by Directory Of Social Change, London, 2011, ISBN:9781906294168, 190629416X.
[6] أويس عطوه الزنط، " أسس تقييم المشروعات و دراسات جدوى الاستثمار - ج الجزء الثاني. ، " المكتبة الأكاديمية، ١٩٩٢.

8. Facilities required for teaching and learning

Lecture/Classroom
White board
Data show

9. Matrix of Course Content with Course LO's

Topics	Aim	CLO's
How to prepare the necessary introductive studies for the graduation project	1	Clo19
Specify "Vision – Mission – Aim – Goal" of the project subject.	1	Clo15, Clo16
History and Growth of the project subject and its importance.	1	Clo15, Clo16, Clo19
Types of the project subject and discuss the benefits and advantages.	1	Clo15, Clo16, Clo19
Site Analysis and the location of the project.	1	Clo16, Clo19, Clo20
Standards of the project component and spaces	1	Clo19, Clo20
Different styles of building	1	Clo19, Clo20, Clo28, Clo29
Sustainability design concept and environmental design	1	Clo19, Clo20, Clo28, Clo29
smart materials and solutions for sustainable architecture	1	Clo19, Clo20, Clo28, Clo29
Case studies of similar global projects.	1	Clo19, Clo20, Clo28, Clo29
Case studies of similar local projects.	1	Clo19, Clo20, Clo28, Clo29
Revision all the research	1	Clo19, Clo20, Clo28, Clo29
Semi Final Research	1	Clo19, Clo20, Clo28, Clo29
Oral Exam	1	Clo19, Clo20, Clo28, Clo29

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo7	Function efficiently as an individual and as a member of multi-disciplinary and multi-cultural teams.	Clo15	Function efficiently as an individual and as a member of multi-disciplinary and multi-cultural teams.
Plo8	Communicate effectively – graphically, verbally and in writing – with a range of audiences using contemporary tools.	Clo16	Communicate effectively – graphically, verbally and in writing – with a range of audiences using contemporary tools.
Plo10	Acquire and apply new knowledge; and practice self, lifelong and other learning strategies.	Clo19	Acquire and apply new knowledge.
		Clo20	Practice self, lifelong and other learning strategies.
Plo14	Transforming design concepts into buildings and integrating plans into comprehensive planning within restrictions: Financing Project - Project management - Cost control - Project delivery methods, having sufficient knowledge relevant industries, organizations, regulations and procedures.	Clo28	Transform design concepts into buildings and integrating plans into comprehensive planning within restrictions: Financing issues and Project management
		Clo29	Transform design concepts into buildings and integrating plans within restrictions with regulations

Title	Name	Signature
Course coordinator	**Prof. Ahmed Yehia** **Prof. Usama Nassar**	
Head of Department	**Assocc. Prof. Reham Othman**	
Date of Approval	**1/10/2022**	

Ministry of Higher Education
Higher Institute of Engineering and Technology
Architecture Eng. department

Course Specification

Course Code: Are 4102 Course Title: Working Drawings (3)

1. Basic information

Program Title	Architecture Engineering			
Department offering the program	Architecture Engineering			
Department offering the course	Architecture Engineering			
Course Code	ARE 4102			
Year/level	Forth year /Fifth Level			
Specialization	Major			
Teaching Hours	Lectures	Tutorial	Practical	Total
	-	8	-	8

2. Course Aims

No.	Aim
1	Provide the students with modern academic and technical skills, whether through to implement more inclusive projects by design working drawings while exploiting modern technologies. (AM3.1)

3. Course Learning Outcomes (CLOs)

Clo30	Prepare design project briefs and documents
Clo31	Manage the architect's context in the construction industry including his role in the bidding and procurement of architectural services

4. Course Contents

Topics	Week
Introduction to working drawings	1
Building structure systems for long spans	2
The documents set of a preliminary working projects	3
Illustrate details of: Construction, Finishes and maintenance.	4
Release of the project	5
Plans drawings: Basement floor plan +Ground floor plan +First floor plan typical floor plan	6
Section / wall section drawings	7
Elevation drawings	8

Layout: Soft scape & hard scape	10
Details of certain and specific points of the project	11
Electrical shop Drawings	12
Plumbing shop Drawings	13
Semi Final Submission	14
Final Submission and project presentation	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research	Projects	Presentation	Site Visits	Discussion	Brain storm	E-Learning	Self-learning	Modeling and simulation
Clo30	√		-	√	√	-	-	√	-	-	√	-
Clo31	√	√	-		√	-	-	√	-	-		-

6.Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	----------
2	Mid Term Exam	**Clo30, Clo31**
3	Researches	**Clo30**
4	Projects	**Clo30, Clo31**
5	Classwork	**Clo31**
6	Written Exam	**Clo30, Clo31**

6.2 Assessment Schedule

No	Assessment Method	Weeks
1	Attendance	----------
2	Mid Term Exam	9
3	Researches	8,13
4	Projects	From week 6 to week 15
5	Classwork	weekly
8	Written Exam	16

6.3 Weighting of Assessments					
	Assessment Method	**Weights%**	**Weights**	**Weights%**	**Weights**
Teacher Opinion	Attendance	60	60	--	--
	Mid Term Exam			20	20
	Researches			10	20
	Classwork			10	10
	Project			20	20
Final Exam	Written exam	40	40	40	40
Total		100	100	100	100

7. List of References

[1] McKay B.(2004) .McKay's Building Construction.Publisher: Routledge; 1st edition, 2004, ISBN-13 : 978-1873394724
[2] Chudley, R. & Greeno,R. (2005). Construction Technology (4th ed.) Publisher : Prentice Hall .ISBN-10 : 0131286420, Library Book Code:A-a/16
[3] Capeluto G. & Emesto C.(2017). Intelligent Envelopes for High-Performance Buildings: Design and Strategy (Green Energy and Technology). Publisher: Springer ASIN : B01MXJ8HBN
[4] Hugh Seaton, (2021) "The Construction Technology Handbook", 1st edition, Publisher:Wiley, ISBN-10 : 111971995X

8. Facilities required for teaching and learning

Lecture hall
White board
Data show

9. Matrix of Course Content with Course LO's

Topics	Aim	CLO's
Introduction to working drawings	1	**Clo30**
Building structure systems for long spans	1	**Clo30**
The documents set of a preliminary working projects	1	**Clo30**
Illustrate details of: Construction, Finishes & maintenance.	1	**Clo30**
Release of the project	1	**Clo30, Clo31**
Plans drawings: Basement floor plan +Ground floor plan +First floor plan typical floor plan	1	**Clo30, Clo31**
Section / wall section drawings	1	**Clo30, Clo31**
Elevation drawings	1	**Clo30, Clo31**
Layout: Soft scape & hard scape	1	**Clo30, Clo31**

Details of certain and specific points of the project	1	**Clo30, Clo31**
Electrical shop Drawings	1	**Clo30**
Plumbing shop Drawings	1	**Clo30**
Semi Final Submission and project presentation	1	**Clo30, Clo31**
Final Submission and project presentation	1	**Clo30, Clo31**

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo15	Prepare design project briefs and documents and understand the architect's context in the construction industry including, This includes his role in the bidding and procurement of architectural services and the production of buildings	**Clo30**	Prepare design project briefs and documents
		Clo31	Manage the architect's context in the construction industry including his role in the bidding and procurement of architectural services

Title	Name	Signature
Course coordinator	**Dr. Yasmin Talaat Ismail**	
Head of Department	**Assoc Prof. Dr. Reham Othman**	
Date of Approval	**1/10/2022**	

برنامج الهندسة المعمارية
المعهد العالي للهندسة والتكنولوجيا
بالتجمع الخامس

Course Specification

Course Code: ARE 4105 **Course Title:** Professional Practice & Legislation

1. Basic information

Program Title	Architecture Engineering Department			
Department offering the program	Architecture Engineering Department			
Department offering the course	Architecture Engineering Department			
Course Code	**ARE 4105**			
Year/level	Fourth year / Fifth Level			
Specialization	**Minor**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	2	1	-	3

2. Course Aims

No.	Aim
1	Link between the participating sectors in the construction and development operation of communities and between the graduates of the program. (AM4.1)
2	Enable students to possess knowledge of regulations and laws and commitment to ethics and professional practice. (AM4.3)

3. Course Learning Outcomes (CLOs)

Clo6	Apply engineering design processes to produce cost-effective solutions.
Clo7	Meet specified needs with consideration for ethical aspects.
CLO9	Utilize codes of practice and standards.
Clo29	Transform design concepts into buildings and integrating plans within restrictions with regulations

4. Course Contents

Topics	Week
Introduction of the course (Engineering projects stages and types of drawings)	1
Obligations of the owner, contractor and engineer	2
Organization of construction works (internal heights - internal surface - internal dimension - flat openings - doors)	3
Organization of construction works (requirements for stairs - courtyards)	4
Licensing documents - Deciding on the license - Obligations of the license applicant	5
Follow up on the group project	6
Building validity certificate for occupancy	7
Building requirements at road intersections	8

Types of contracting and contracting contracts	10
Types of tender	11
Organization of construction works (cornices and protrusions - balconies)	12
The Law of Reconciliation in Urbanization 2019	13
Professional ethics	14
Final Project Submission	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo6	√	-	-	-	-	-	-		√	-	-	-
Clo7	-	-	-	√	√	-	-	√	-	√	√	-
Clo9	√	√	-	√	√	-	-	-	-	-	-	-
Clo29	√	√	-	√	√	-	-	√	√	√	√	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	Clos
1	Attendance	-
2	Written exam	**Clo6, Clo7, Clo29**
3	Discussions	**Clo7, Clo29**
4	Mid Term Exam	**Clo6, Clo7, Clo29**
5	Class works	**Clo9, Clo29**
6	Projects	**Clo7, Clo9, Clo29**
7	Researches	**Clo7, Clo9, Clo29**
8	Reports	-
9	Presentations	-
10	Laboratory	-
11	Quiz	-
12	Skiz	-

6.2 Assessment Schedule

No.	Assessment Method	Weeks
1	Attendance	Weekly
2	Written exam	16
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	3-6

6	Projects	3-6-10
7	Researches	3-6-10
8	Reports	-
9	Presentations	-
10	Laboratory	-
11	Quiz	-
12	Skiz	-

6.3 Weighting of Assessments

	Assessment Method	Weights%	Weights	Weights%	Weights
Teacher Opinion	Discussions	50	50	5	5
	Class works			5	5
	Projects			10	10
	Researches			10	10
	Mid-term exam			20	20
Final Exam	Final exam	50	50	50	50
Total		100	100	100	100

7. List of References

- الجريدة الرسمية، "قانون البناء الموحد رقم ١١٩ لعام ٢٠٠٨"، عدد ١٤ مكرر، جمهورية مصر العربية، ٢٠١٩.
- اتحاد المهندسين العرب، "ميثاق أخلاق مهنة الهندسة"، يناير ٢٠١٨.
- أحمد القطان، "العقود والمواصفات الحاكمة بين المالك والاستشاري والمقاول"، دار الكتب العلمية للنشر والتوزيع، القاهرة، ٢٠٢١.

8. Facilities required for teaching and learning

Lecture/Classroom
White board
Google Classroom
Data show

9. Matrix of Course Content with Course LO's

Topics	Aim	CLO's
Introduction of the course (Engineering projects stages and types of drawings)	1	**Clo6**
Obligations of the owner, contractor and engineer	1	**Clo6, Clo7**
Organization of construction works (internal heights - internal surface - internal dimension - flat openings - doors)	2	**Clo9, Clo29**
Organization of construction works (requirements for stairs - courtyards)	2	**Clo9, Clo29**

Licensing documents - Deciding on the license - Obligations of the license applicant	1,2	**Clo6, Clo29**
Follow up on the group project	2	**Clo7, Clo29**
Building validity certificate for occupancy	1	**Clo7, Clo29**
Building requirements at road intersections	1	**Clo7, Clo29**
Types of contracting and contracting contracts	1	**Clo6, Clo7**
Types of tender	1	**Clo7**
Organization of construction works (cornices and protrusions - balconies)	2	**Clo9, Clo29**
The Law of Reconciliation in Urbanization 2019	1	**Clo7**
Professional ethics	2	**Clo7**
Final Project Submission	2	**Clo7, Clo29**

10. Matrix of Program LOs with Course Los

Program Los		Course Los	
Plo3	Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical, and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development.	**Clo6**	Apply engineering design processes to produce cost-effective solutions.
		Clo7	Meet specified needs with consideration for global, cultural, social, economic, environmental, and ethical aspects.
Plo4	Utilize contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues, and risk management principles.	**Clo9**	Utilize codes of practice and standards.
Plo14	Transforming design concepts into buildings and integrating plans into comprehensive planning within restrictions: Financing Project - Project management - Cost control - Project delivery methods, having sufficient knowledge relevant industries, organizations, regulations and procedures.	**Clo29**	Transform design concepts into buildings and integrating plans within restrictions with regulations

Title	Name	Signature
Course coordinator	**Dr. Hadeel Mahmoud**	
Head of Department	**Assocc. Prof. Reham Othman**	
Date of Approval	**1/10/2022**	

برنامج الهندسة المعمارية
المعهد العالي للهندسة والتكنولوجيا
بالتجمع الخامس

Course Specification

Course Code: ARE4262 Course Title: Elective Course (3) Advanced technical installations

1. Basic information

Program Title	Architecture Engineering			
Department offering the program	Architecture Engineering			
Department offering the course	Architecture Engineering			
Course Code	ARE4262			
Year/level	Forth year /Fifth Level			
Specialization	**Major**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	3	2	0	5

2. Course Aims

No.	Aim
1	Strengthens the links between the participating sectors in the construction to achieve Advanced technical installations in buildings through architeture drawings .(AM4.3)

3. Course Learning Outcomes (CLOs)

Clo6	Apply engineering design processes to produce cost-effective solutions.
Clo7	Meet specified needs with consideration for global, cultural, social, economic, environmental, and ethical aspects.
Clo26	Prepare environmentally responsible designs to preserve and rehabilitate the environment
Clo27	choose the structural design, construction, technology used

4. Course Contents

Topics	Week
Explanation of executive elevations (façade finishes , levels, relationship to the section and all information and data required in the facades) and how to draw it.	1
Explanation of executive elevations (façade finishes , levels, relationship to the section and all information and data required in the facades) and how to draw it.	2
How to make afull details working drawings section and all the information and data required in the sections.	3

Explaination of general details and staircase details	4
Application of Advanced technical installations in buildings	5
Thermodynamics Principles.	6
Application of Thermodynamics Principles.	7
Active HVAC systems	8
Thermal insulation in buildings	10
Thermal insulation in buildings and its methods	11
Electromechanical Systems in building	12
Plumbing systems.	13
Plumbing systems contained	14
Final Project	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo6	√	√	-	√	√	√	-	-	-	-	-	-
Clo7	√		-	√	√	√	-	-	-	-	√	-
Clo26	√	√	-		√		-	-	-	-	√	-
Clo27	√	√	-		√		-	-	-	-	√	-

6.Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	----------
2	Mid Term Exam	**Clo6, Clo7, Clo26, Clo27**
3	Projects	**Clo6, Clo7, Clo26, Clo27**
4	Researches	**Clo6, Clo7**
5	Presentations	**Clo6, Clo7**
6	Written Exam	**Clo6, Clo7, Clo26, Clo27**

6.2 Assessment Schedule

No	Assessment Method	Weeks
1	Attendance	weekly
2	Mid Term Exam	9
3	Projects	14,15
4	Researches	14,15
5	Presentations	15
6	Written Exam	16

6.3 Weighting of Assessments					
	Assessment Method	**Weights%**	**Weights**	**Weights%**	**Weights**
	Mid Term Exam			20	20
	Projects			%20	20
	Researches			%5	5
	Presentations			%5	5
Final Exam	Written exam	%50	50	%50	50
Total		%100	100	%100	100

7. List of References

- Vaughn Bradshaw ,(2019),"The Building Environment: Active and Passive Control Systems", Wiley & Sons,5TH Ed,ISBN13 978-0471689652.
- MERRITT F. S., RICKETTS J.T., McGraw Hill ,(2018),"Design and Construction" Hand Book, , New York,3rd Ed,ISBN13 979-8352035498 .
- American Society of Heating, Refrigerating & Air-Conditioning Engineers,(2016), "Principles of Heating, Ventilating and Air-Conditioning Handbook. Fundamentals: SI ed. Amer Society of Heating, Atlanta, GA 6th Ed, ISBN13 978-1933742694.
- ايمان عبدالهادى, (2022), "انظمة التدفئه والتهوية وتكييف الهواء, ورقة بحثية,المجلة العربية للبحث العلمى,العدد الثانى.

8. Facilities required for teaching and learning

White board
Data show

9. Matrix of Course Content with Course CLO's

Topics	Aim	CLO's
Explanation of executive elevations (façade finishes , levels, relationship to the section and all information and data required in the facades) and how to draw it.	1	**Clo7**
How to make afull details working drawings section and all the information and data required in the sections.	1	**Clo6, Clo7**
Explaination of general details and staircase details	**1**	**Clo6, Clo7, Clo26, Clo27**
Application of Advanced technical installations in buildings	1	**Clo6, Clo7, Clo26, Clo27**
Thermodynamics Principles.	1	**Clo6, Clo7, Clo26, Clo27**
Application of Thermodynamics Principles.	1	**Clo6, Clo7, Clo26, Clo27**
Active HVAC systems	1	**Clo7, Clo26**
Thermal insulation in buildings	1	**Clo7, Clo26**

Thermal insulation in buildings and its methods	1	**Clo7, Clo26**
Electromechanical Systems in building	1	**Clo7, Clo26**
Plumbing systems.	1	**Clo7, Clo26**
Plumbing systems contained	1	**Clo6, Clo7, Clo26, Clo27**
The project discussion	1	**Clo6, Clo7, Clo26, Clo27**
Final Project	1	**Clo6, Clo7, Clo26, Clo27**

10. Matrix of Program PLOs with Course CLOs

Program PLOs		Course LOs	
Plo3	Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical, and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development.	**Clo6**	Apply engineering design processes to produce cost-effective solutions.
		Clo7	Meet specified needs with consideration for global, cultural, social, economic, environmental, and ethical aspects.
Plo13	Preparing environmentally responsible designs to preserve and rehabilitate the environment through an understanding of the structural design, construction, technology used and associated engineering problems Building designs	**Clo26**	Prepare environmentally responsible designs to preserve and rehabilitate the environment
		Clo27	choose the structural design, construction, technology used

Title	Name	Signature
Course coordinator	**Dr. Hend Ali**	
Head of Department	**Assocc. Prof. Reham Othman**	
Date of Approval	**1/10/2022**	

برنامج الهندسة المعمارية
المعهد العالي للهندسة والتكنولوجيا
بالتجمع الخامس

Course Specification
Course Code: ARE 4271 Course Title: Elective Course (4) Humanities in Architecture

1. Basic information

Program Title	Architecture department			
Department offering the program	Architecture department			
Department offering the course	Architecture department			
Course Code	ARE 4271			
Year/Level	Fourth-year/ Fifth Level			
Specialization	**Major**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	3	2	-	5

2. Course Aims

No.	Aim
1	Train the students for innovative and creative thinking of global thought toward the human trend in architecture and urbanism, and the science of ergonomics and its fields of application in architecture. Describing and solving design problems and requirements using scientific methods that ensure meeting the needs of present and future generations in terms of social, cultural, environmental, and economic aspects as an entry point for achieving sustainable development and applying it to architectural projects. (AM2.1)

3. Course Learning Outcomes (CLOs)

Clo19	Acquire and apply new knowledge.
Clo20	Practice self, lifelong and other learning strategies.
Clo24	Deal with the relation between people, buildings, and their surrounding environment
Clo25	Produce designs with the scale of humanity and its needs

4. Course Contents

Topics	Week
Introduction to the study of Environment and behavior	1
The shift in global thought towards the human trend in architecture & urbanism	2
The science of ergonomics and its fields of application in architecture	3
Human nature and needs (Maslow's hierarchy)	4
The nature of man and his needs (Gashlett theory)	5
The Role of behavioral sciences in designing urban spaces	6
Behavioral unit and terms of use in the design	7
The mental image, for a sense of beauty	8
The characteristics of a good shape and its impact on the user	10
The gap between the designer and the user	11
The space, its characteristics, and its role in adapting to the user	12
Behavioral unit and terms of use in the design	13
The mental image, for a sense of beauty and its impact on the user	14
The characteristics of a good shape and its impact on the user	15

5. Teaching and Learning methods

Course Learning Outcomes (CLos)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo19	√		-	√	-		√	√	√	√	-	-
Clo20	√		-	√	-	√	√		√		-	-
Clo24	√	√	-	√	-	√					-	-
Clo25	√	√	-	√	-	√	√	√		√	-	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	----------
2	Written Exam	**Clo19, Clo20, Clo24, Clo25**
3	Discussions	**Clo19, Clo25**
4	Mid Term Exam	**Clo19, Clo20, Clo24**
5	Class works	**Clo24, Clo25**
6	Researches	**Clo19, Clo20, Clo24, Clo25**
7	Presentations	**Clo20, Clo24, Clo25**
8	Quiz	**Clo24, Clo25**

6.2 Assessment Schedule

No	Assessment Method	Weeks
1	Attendance	weekly
2	Written Exam	16
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	4 & 12
6	Researches	Bi-week
7	Presentations	Bi-week
8	Quiz	4 & 12

6.3 Weighting of Assessments

	Assessment Method	Weights%	Weights
Teacher Opinion	Discussions	5%	5
	Mid-term exam	20%	20
	Assignment	5%	5
	Presentations	5%	5
	Researches	10%	10
	Quiz	5%	5
Final Exam	Written exam	50%	50
Total		100%	100

7. List of References

[1] K. M. Dessie, Thomas Laswell (2016) Human considerations in architectural design, King Saud University Publishing House, architectural design,
[2] Lynch, K. (1960). The image of the city. (2nd edition). MIT Press,ISBN 0-262-62001-4
[3] London F.(2020)(Healthy Placemaking: Wellbeing Through Urban Design",RIBA Publishing,1st edition, ISBN-10: 1859468837

8. Facilities required for teaching and learning

Lecture hall
Whiteboard
Google Classroom
Data show

9. Matrix of Course Content with Course LO's

Topics	Aim	CLO's
Introduction to the study of Environment and behavior	1	**Clo19, Clo20**
The shift in global thought towards the human trend in architecture and urbanism	1	**Clo19, Clo20**
The science of ergonomics and its fields of application in architecture	1	**Clo24, Clo25**
Human nature and needs (Maslow's hierarchy)	1	**Clo24, Clo25**
The nature of man and his needs (Gashlett theory)	1	**Clo24**
The Role of behavioral sciences in designing urban spaces	1	**Clo24**
Behavioral unit and terms of use in the design	1	**Clo19, Clo24**
The mental image, for a sense of beauty	1	**Clo24, Clo25**
the characteristics of a good shape and its impact on the user	1	**Clo19, Clo24, Clo25**
The gap between the designer and the user	1	**Clo20, Clo25**
The space, its characteristics, and its role in adapting to the user	1	**Clo19, Clo24**
Behavioral unit and terms of use in the design	1	**Clo24, Clo25**
The mental image, for a sense of beauty and the characteristics of a good shape and its impact on the user	1	**Clo24, Clo25**

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo10	Acquire and apply new knowledge; and practice self, lifelong and other learning strategies.	Clo19	Acquire and apply new knowledge.
		Clo20	Practice self, lifelong and other learning strategies.
Plo12	Produce designs that meet the requirements of building users by understanding the relationship between people and buildings, and between the buildings and their surrounding environment, with the necessity of linking the buildings and the spaces between them to the scale of humanity and its needs	Clo24	Deal with the relation between people, buildings, and their surrounding environment
		Clo25	Produce designs with the scale of humanity and its needs

Title	Name	Signature
Course coordinator	**Assocc. Prof. Rania Badawy**	
Head of Department	**Assocc. Prof. Reham osman**	
Date of Approval	**1-10-2022**	

برنامج الهندسة المعمارية
المعهد العالي للهندسة والتكنولوجيا
بالتجمع الخامس

Course Specification

Course Code: HUM 4231 **Course Title: Environmental Impact of Projects**

1. Basic information

Program Title	Architecture Engineering			
Department offering the program	Architecture Engineering			
Department offering the course	Architecture Engineering			
Course Code	HUM 4231			
Year/level	Forth year / Fifth Level			
Specialization	**Minor**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	2	1	0	3

2. Course Aims

No.	Aim
1	Prepare project documents; submit the environmental report of the architectural projects to obtain approval to build the project. (AM5.2)

3. Course Learning Outcomes (CLOs)

Clo26	Prepare environmentally responsible designs to preserve and rehabilitate the environment
Clo27	Use the environmental design process, and modern technology in building the projects.

4. Course Contents

Topics	Week
An introduction to the objectives of the environmental impact of projects	1
Important definitions of the environmental impact of projects	2
The environmental impacts of projects during the operation phase and how to address them + an introduction to the required research	3
Classification of projects according to their environmental impact + follow-up to the first phase of the research (Part 1)	4
Classification of projects according to their environmental impact + follow-up to the first phase of the research (Part 2)	5
Project classification forms and how to apply them	6
Discuss the first stage of the research	7
Steps to apply for an environmental impact assessment (Part 1)	8
Steps to submit an environmental impact assessment (Part 2)	10
Steps to submit an environmental impact assessment (Part 3)	11
Discuss the second stage of the research	12
Methods (methods) of studying environmental impact	13

assessment + follow-up to the third phase of the research (Part 1)	
Methods (methods) of studying environmental impact assessment + follow-up to the third phase of the research (Part 2)	14
General review + final submission and discussion of the research	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo26	√	√	-	√	-	√	-	√	√	-	-	-
Clo27	√	√	-	√	-		-			-	-	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	-
2	Written exam	**Clo26, Clo27**
3	Discussions	**Clo26**
4	Mid Term Exam	**Clo26, Clo27**
5	Class works	-
6	Projects	-
7	Researches	**Clo26, Clo27**
8	Reports	-
9	Presentations	**Clo26**
10	Quiz	**Clo26, Clo27**
11	Skiz	-

6.2 Assessment Schedule

No.	Assessment Method	Weeks
1	Attendance	-
2	Written exam	16
3	Discussions	7&11
4	Mid Term Exam	9
5	Class works	-
6	Projects	-
7	Researches	7&11&15
8	Reports	-
9	Presentations	7&11
10	Quiz	6
11	Skiz	-

6.3 Weighting of Assessments

	Assessment Method	Weights%	Weights	Weights%	Weights
Teacher Opinion	Discussions	50	50	5	5
	Researches			10	10
	Presentations			5	5
	Quiz			10	10
	Mid-term exam			20	20
Final Exam	Written exam	50	50	50	50
Total		100	100	100	100

7. List of References

[١] عبدالله بوعجيلة، (٢٠١٩)، "تقييم الأثر البيئي للمشروعات التنموية: دراسة حالة الأردن"، تم النشر بواسطة المعهد العربي للتخطيط، الكويت، ISBN: 24843130.
[٢] ذكريا عيسى آسيا، (٢٠١٩)، "تقييم الآثار البيئية للمشاريع حماية للبيئة الحضري"، مجلة تشريعات التعمير والبناء – العدد السابع، جامعة سيدي بلعباس، ISSN : 2543-3970.

8. Facilities required for teaching and learning

Lecture/Classroom
White board
Data show

9. Matrix of Course Content with Course LO's

Topics	Aim	CLO's
An introduction to the objectives of the environmental impact of projects	1	**Clo26**
Important definitions of the environmental impact of projects	1	**Clo26**
The environmental impacts of projects during the operation phase and how to address them + an introduction to the required research	1	**Clo26, Clo27**
Classification of projects according to their environmental impact + follow-up to the first phase of the research (Part 1)	1	**Clo26, Clo27**
Classification of projects according to their environmental impact + follow-up to the first phase of the research (Part 2)	1	**Clo26, Clo27**
Project classification forms and how to apply them	1	**Clo27**
Discuss the first stage of the research	1	**Clo26**
Steps to apply for an environmental impact assessment (Part 1)	1	**Clo26, Clo27**
Steps to submit an environmental impact assessment (Part 2)	1	**Clo26, Clo27**
Steps to submit an environmental impact assessment (Part 3)	1	**Clo26, Clo27**
Discuss the second stage of the research	1	**Clo26, Clo27**
Methods (methods) of studying environmental impact	1	**Clo26, Clo27**

assessment + follow-up to the third phase of the research (Part 1)		
Methods (methods) of studying environmental impact assessment + follow-up to the third phase of the research (Part 2)	1	**Clo26, Clo27**
General review + final submission and discussion of the research	1	**Clo26, Clo27**

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo13	Preparing environmentally responsible designs to preserve and rehabilitate the environment through an understanding of the structural design, construction, technology used and associated engineering problems Building designs	**Clo26**	Prepare environmentally responsible designs to preserve and rehabilitate the environment
		Clo27	choose the structural design, construction, technology used

Title	Name	Signature
Course coordinator	**Prof. Dr. Essam Eldin Badran**	
Head of Department	**Associa. Prof. Reham Othman**	
Date of Approval	**1/10/2022**	

برنامج الهندسة المعمارية
المعهد العالي للهندسة والتكنولوجيا
بالتجمع الخامس

Course Specification

Course Code: ARE 4299 **Course Title: Project**

1. Basic information

Program Title	Architecture Engineering			
Department offering the program	Architecture Engineering			
Department offering the course	Architecture Engineering			
Course Code	ARE 4299			
Year/level	Fourth year / Fifth Level			
Specialization	**Major**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	0	16	0	16

2. Course Aims

No.	Aim
1	Provide the students with the capacity to prepare flexible and ecologically responsible designs by understanding modern structural and technological designs. (AM5.1)
2	Use the fast-technological development in designing several projects. (AM7.1)

3. Course Learning Outcomes (CLOs)

Clo23	Produce designs that meet the requirements of building users
Clo24	Deal with the relation between people, buildings, and their surrounding environment
CLO25	Produce designs with the scale of humanity and its needs

4. Course Contents

Topics	Week
Introduction of the project	1
Introduction of the project	
Research for the Project + Skiz1	2
Research Presentation + Skiz1	
Layout 1/500	3
Layout 1/500	
Layout 1/500 + Ground floor plan 1/400	4
Layout 1/500 + Ground floor plan 1/400	
Layout 1/500 + Ground floor plan 1/400	5
Layout 1/500 + Ground floor plan 1/400	
Layout 1/500 + Ground floor plan 1/200 + sections 1/200 + typical floors	6
Layout 1/500 + Ground floor plan 1/200 + sections 1/200 + typical floors	
sections 1/200 + Elevations 1/200	7
sections 1/200 + Elevations 1/200	

Skiz 2(Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective)	8
Revision Skiz 2(Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective)	
Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective	10
Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective	
Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective	11
Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective	
All Project observation	12
All Project observation	
All Project observation	13
All Project observation	
All Project observation	14
All Project observation	
Semifinal project	15
Final project	

5.Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo23			-	√		√	-	√	-			-
Clo24		√	-		√		-	√	-	√	√	-
CLO25		√	-		√		-		-	√	√	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	Clos
1	Attendance	-
2	Oral exam	**Clo23, Clo24, Clo25**
3	Discussions	**Clo23, Clo24**
4	Mid Term Exam	**Clo23, Clo24**
5	Class works	**Clo23, Clo24, Clo25**
6	Projects	**Clo23, Clo24, Clo25**
7	Researches	**Clo23**
8	Reports	-
9	Presentations	**Clo23**

10	Quiz	-
11	Skiz	**Clo23, Clo24, Clo25**

6.2 Assessment Schedule

No.	Assessment Method	Weeks
1	Attendance	-
2	Oral exam	16
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	weekly
6	Projects	15
7	Researches	2
8	Reports	-
9	Presentations	2
10	Quiz	-
11	Skiz	6,11

6.3 Weighting of Assessments

	Assessment Method	Weights%	Weights	Weights%	Weights
Teacher Opinion	Discussions	100	100	5	5
	Class works			20	20
	Projects			25	25
	Researches			6	6
	Presentations			4	4
	Skiz			20	20
	Mid-term exam			20	20
Final Exam	Oral exam	100	100	100	100
Total		100	100	100	100

7.List of References

[1] Nathalie Bonnardel, Alicja Wojtczuk, Pierre - YvesGilles, SylvainMazon, (2018), "The creative process in design", ISBN-13: 978-1401861643.
[2] Ruoyu Jin, (2019), "Sustainable Construction Technologies", London South Bank University, ISBN 9780128117491.
[3] Lee Hwa-Jeong, (2020), "ACA: Architecture competition annual. Vol 14 (Education / Culture/ Welfare & Sports)", Publisher : Archiworld Co.Ltd, Koria, ISBN-13: 978-8957708194.
[4] Frohlich,A. & Lippok,S., (2019), "Plans and Images: An Archive of Projects on Typology in Architecture 2013-2018, THE UNIVERSITY OF CHICAGO PRESS , Germany, ISBN 13: 9783038601388.

8.Facilities required for teaching and learning

Lecture/Classroom
White board
Data show

9.Matrix of Course Content with Course LO's

Topics	Aim	CLO's
Introduction of the project	1	Clo23
Introduction of the project	1	
Research for the Project + Skiz1	1&2	Clo23, Clo24
Research Presentation + Skiz1	1&2	
Layout 1/500	1&2	Clo23, Clo24
Layout 1/500	1&2	
Layout 1/500 + Ground floor plan 1/400	1&2	Clo23, Clo24
Layout 1/500 + Ground floor plan 1/400	1&2	
Layout 1/500 + Ground floor plan 1/400	1&2	Clo23, Clo24
Layout 1/500 + Ground floor plan 1/400	1&2	
Layout 1/500 + Ground floor plan 1/200 + sections 1/200 + typical floors	1&2	Clo23, Clo24
Layout 1/500 + Ground floor plan 1/200 + sections 1/200 + typical floors	1&2	
sections 1/200 + Elevations 1/200	1&2	Clo24, Clo25
sections 1/200 + Elevations 1/200	1&2	
Skiz 2(Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective)	1&2	Clo24, Clo25
Revision Skiz 2(Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective)		
Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective	1&2	Clo23, Clo24, Clo25
Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective		
Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective	1&2	Clo23, Clo24, Clo25
Layout 1/500 + Ground floor plan 1/200 + sections 1/200+ sections 1/200 + Elevations 1/200+Prespective		
All Project observation	1&2	Clo23, Clo24, Clo25
All Project observation		
All Project observation	1&2	Clo23, Clo24, Clo25
All Project observation		
All Project observation	1&2	Clo23, Clo24, Clo25
All Project observation		
Semifinal project	1&2	Clo23, Clo24, Clo25
Final project		

10.Matrix of Program LOs with Course Los

Program Los	Course Los

Plo12	Produce designs that meet the requirements of building users by understanding the relationship between people and buildings, and between the buildings and their surrounding environment, with the necessity of linking the buildings and the spaces between them to the scale of humanity and its needs	CLO23	Produce designs that meet the requirements of building users
		CLO24	Deal with the relation between people, buildings, and their surrounding environment
		CLO25	Produce designs with the scale of humanity and its needs

Title	Name	Signature
Course coordinator	**Prof. Dr. Ahmed Yehia** **Prof. Dr. Usama Nassar** **Dr. Hadeel Mahmoud** **Dr. Hadeer Abdelsamie**	
Head of Department	**Associa. Prof. Reham Othman**	
Date of Approval	**1/10/2022**	

برنامج الهندسة المعمارية
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بالتجمع الخامس

Course Specification

Course Code: Are 4261 **Course Title: Elective Course (3): Housing in developing countries**

1. Basic information

Program Title	Architecture Engineering			
Department offering the program	Architecture Engineering			
Department offering the course	Architecture Engineering			
Course Code	ARE 4261			
Year/level	Fourth year /Fifth Level			
Specialization	**Major**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	3	2	0	5

2. Course Aims

No.	Aim
1	Link between the participating sectors in the construction and development operation of urban communities and between the graduates of the program in the fields of practical training, entrepreneurship, and project management. (AM4.1)
2	Enable students to possess knowledge of regulations and laws and commitment to ethics and professional practice. (AM4.2)

3. Learning Outcomes (CLOs)

Clo7	Meet specified needs with consideration for global, cultural, social, economic, environmental, and ethical aspects.
Clo8	Achieve the principles of design within the principles and contexts of sustainable design and development.
Clo24	Deal with the relation between people, buildings, and their surrounding environment

4. Course Contents

Topics	Week
Introduction to the concept of housing	1
Housing development and the factors influencing it	2
The foundations and principles of designing residential areas and neighbourhoods	3

The foundations and principles of designing residential areas and neighborhoods	4
Research (1) - An analytical study of one of the residential neighborhoods	5
Housing problems in developing countries	6
Studying the reality of housing in Egypt and applying the previous items to the current situation	7
Indiscriminate housing problems and its causes	8
Problems of slum housing and its causes	10
Research (2) - An analytical study of one of the slums in Egypt	11
Housing policies and housing economics, follow-up to an analytical study of a slum area	12
Presentation of the researches	13
Semi Final researches submission	14
Final researches submission	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods										
	Lectures	Assignment	Labs	Research and	Projects	Presentation	Site Visits	Discussion and	Brain storm	E-Learning	Self-learning
Clo7	√		-	√	-	√	√	√	√	√	
Clo8			-		-		√		√		√
Clo24	√	√	-	√	-	√		√			√

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	----------
2	Written exam	**Clo7, Clo8, Clo24**
3	Discussions	**Clo7, Clo24**
4	Mid Term Exam	**Clo7, Clo8**
5	Class works	-
6	Projects	-
7	Researches	**Clo7, Clo24**
8	Reports	-
9	Presentations	**Clo7, Clo24**
10	Quiz	-
11	Skiz	-

6.2 Assessment Schedule		
No	**Assessment Method**	**Weeks**
1	Attendance	weekly
2	Written exam	16
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	-
6	Projects	-
7	Researches	5,10,14,15
8	Reports	-
9	Presentations	13
10	Quiz	-
11	Skiz	-

6.3 Weighting of Assessments					
	Assessment Method	**Weights%**	**Weights**	**Weights%**	**Weights**
Teacher Opinion	Attendance	50	50	--	--
	Mid Term Exam			20	20
	Projects			-	-
	Researches			20	20
	Presentations			10	10
Final Exam	Written exam	50	50	50	50
Total		100	100	100	100

7. List of References

[1] David Drakakis-Smith – " Housing and the Development Process" ,Published by: Taylor & Francis, 2012 , ISBN:9781136866180, 1136866183.

[2] Cousins, M. -Design Quality in New Housing (1st ed.),2009, Taylor and Francis. ISBN : 9780415447706 A-d/132-

[3] Hilary, "New Urban Housing", Yale University Press,2006, ISBN:9781856694544, 1856694542.

٤- عبدالله العابد، وليد سعد، "سياسة الإسكان في الدول النامية"، الطبعة الأولى، مؤسسة مرجع الكتاب، الرياض، ٢٠٢٢.

8. Facilities required for teaching and learning

Lecture hall
White board
Google classroom
Data show

9.Matrix of Course Content with Course LO's

Topics	Aim	CLO's
Introduction to the concept of housing	1	**Clo7**
Housing development and the factors influencing it	1	**Clo7, Clo8**
The foundations and principles of designing residential areas and neighbourhoods	1	**Clo7, Clo8**
The foundations and principles of designing residential areas and neighborhoods	1	**Clo8, Clo24**
Research (1) - An analytical study of one of the residential neighborhoods	1	**Clo8**
Housing problems in developing countries	1	**Clo7, Clo8, Clo24**
Studying the reality of housing in Egypt and applying the previous items to the current situation	1	**Clo7, Clo8**
Indiscriminate housing problems and its causes	1	**Clo7, Clo8**
Problems of slum housing and its causes	1	**Clo7, Clo8**
Research (2) - An analytical study of one of the slums in Egypt	1	**Clo24**
Housing policies and housing economics, follow-up to an analytical study of a slum area	1	**Clo24**
Semi Final researches submission	1	**Clo7, Clo8, Clo24**
Final researches submission	1	**Clo7, Clo8, Clo24**

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo3	Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical, and other aspects as appropriate to the discipline and within the principles and contexts of sustainable design and development.	Clo7	Meet specified needs with consideration for global, cultural, social, economic, environmental, and ethical aspects.
		Clo8	Achieve the principles of design within the principles and contexts of sustainable design and development.
Plo12	Produce designs that meet the requirements of building users by understanding the relationship between people and buildings, and between the buildings and their surrounding environment, with the necessity of linking the buildings and the spaces between them to the scale of humanity and its needs	Clo24	Deal with the relation between people, buildings, and their surrounding environment

Title	Name	Signature
Course coordinator	**Dr. Nesma Helmy**	
Head of Department	**Assoc Prof. Dr. Reham Othman**	
Date of Approval	**1/10/2022**	

Course Specification

Course Code: ARE 4272 **Course Title: (Elective Course** 4**) Domestic and contemporary architecture**

1. Basic information

Program Title	Architecture department			
Department offering the program	Architecture department			
Department offering the course	Architecture department			
Course Code	ARE 4272			
Year/Level	Fourth year (5th Level)			
Specialization	**Major**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	3	2	-	5

2. Course Aims

No.	Aim
1	Apply the students for innovative and creative thinking, describing the local architecture and domestic requirements. (AM2.1)
2	Use scientific methods that ensure meeting the needs of present and future generations in terms of social, cultural, environmental, and economic aspects for local architecture in Egypt. (AM2.2)

3. Learning Outcomes (CLOs)

Clo19	Acquire and apply new knowledge.
Clo20	Practice self, lifelong and other learning strategies.
Clo24	Deal with the relation between people, buildings, and their surrounding environment.

4. Course Contents

Topics	Week
What is contemporary local architecture and its importance?	1
Characteristics of Contemporary Local Architecture: Features of Intellectual Trends in Contemporary Local Architecture	2
Aspects Local architecture was affected by postmodern trends in global architecture.	3
Aspects Local architecture was affected by Heritage local architecture.	4

The impact of intellectual and cultural variables	5
Research (1) - The impact of intellectual and cultural variables	6
Consequences of global and local political and social changes on architectural characteristics.	7
Examples explain these trends in global level.	8
Examples explain these trends in local level.	10
Research (2) - Consequences of global arch. of local Arch.	11
The mail policies of Local Architecture	12
Presentation of researches	13
Submission of semifinal researches	14
Submission of final researches	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo19	√	-	-	√	-		-	√	-	-	-	-
Clo20		-	-	√	-	√	-	√	-	-	-	-
Clo24	√	-	-	√	-	√	-		-	-	-	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	-
2	Written exam	**Clo19, Clo20, Clo24**
3	Discussions	**Clo19, Clo20**
4	Mid Term Exam	**Clo19, Clo20**
5	Class works	-
6	Projects	-
7	Researches	**Clo19, Clo20, Clo24**
8	Reports	-
9	Presentations	**Clo20, Clo24**
10	Quiz	-
11	Skiz	-

6.2 Assessment Schedule		
No.	**Assessment Method**	**Weeks**
1	Attendance	-
2	Written exam	16
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	-
6	Projects	-
7	Researches	6,10
8	Reports	-
9	Presentations	12
10	Quiz	-
11	Skiz	-

6.3 Weighting of Assessments

	Assessment Method	**Weights%**	**Weights**	**Weights%**	**Weights**
Teacher Opinion	Mid Term Exam	50%	50	20%	20
	Researches			20%	20
	Presentations			5%	5
	Discussions			5%	5
Final Exam	Written exam	50%	50	50%	50
Total		100%	100	100%	100

7. List of References

1.Szalapaj, “Contemporary Architecture and the Digital Design Process”, London ,Published by Taylor & Francis ,2014, ISBN:9781135392215, 1135392218.
2. Wim Pauwels,” contemporary architecture & Interiors – Yearbook 2011”, Published by Beta-Plus, 2011, ISBN:9789089440730, 908944073.
3. Hugh Pearman ,”Contemporary World Architecture”, Published by Hugh Pearman,1998, ISBN:9780714842035, 0714842036.
4. Luigi Spinelli, " Layers of contemporary architecture", Published by Franco Angeli, 2021, ISBN: 9788835120667

8. Facilities required for teaching and learning

Lecture/Classroom
Whiteboard
Data show

9. Matrix of Course Content with Course LO's

Topics	Aim	CLO's
What is contemporary local architecture and its importance?	1	CLO19
Characteristics of Contemporary Local Architecture: Features of Intellectual Trends in Contemporary Local Architecture	1	CLO19, CLO24
Aspects Local architecture was affected by postmodern trends in global architecture.	1	CLO24
Aspects Local architecture was affected by Heritage local architecture.	1	CLO24
The impact of intellectual and cultural variables	1	CLO24
Research (1) - The impact of intellectual and cultural variables.	1	CLO19, CLO20
Consequences of global and local political and social changes on architectural characteristics.	1	CLO24
Examples explain these trends in global level.	1	CLO24
Examples explain these trends in local level.	1	CLO24
Research (2) - Consequences of global and local policies.	1	CLO19, CLO20
Presentation of researches	1	CLO19, CLO20
Submission of semifinal researches	1	CLO19, CLO20
Submission of final researches	1	CLO19, CLO20

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo10	Acquire and apply new knowledge; and practice self, lifelong and other learning strategies.	Clo19	Acquire and apply new knowledge.
		Clo20	Practice self, lifelong and other learning strategies.
Plo12	Produce designs that meet the requirements of building users by understanding the relationship between people and buildings, and between the buildings and their surrounding environment, with the necessity of linking the buildings and the spaces between them to the scale of humanity and its needs	Clo24	Deal with the relation between people, buildings, and their surrounding environment

Title	Name	Signature
Course coordinator	Assoc. Prof. Reham Othman	
Head of Department	Assoc. Prof. Reham Othman	
Date of Approval	1/10/2022	

Course Specification

Course Code: ARE 4273 **Course Title: (Elective Course 4) Urban and architecture heritage**

1. Basic information

Program Title	Architecture department			
Department offering the program	Architecture department			
Department offering the course	Architecture department			
Course Code	ARE 4273			
Year/Level	Fourth-year (5th Level)			
Specialization	**Major**			
Teaching Hours	Lectures	Tutorial	Practical	Total
	3	2	-	5

2. Course Aims

No.	Aim
1	Apply the students for innovative and creative thinking, describing Aspects heritage architecture and requirements using scientific methods in conservation as an entry point for achieving conservation of local heritage architecture and applying its features to architectural projects..(AM2.1)
2	Use scientific methods that ensure meeting the needs of present and future generations in terms of social, cultural, environmental, and economic aspects. . (AM2.2)

3. Course Learning Outcomes (CLOs)

Clo19	Acquire and apply new knowledge.
Clo20	Practice self, lifelong and other learning strategies.
Clo24	Deal with the relation between people, buildings, and their surrounding environment

4. Course Contents

Topics	Week
Pharaonic era * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. Examples (kamon , Tal El-amarna ..)	1
Mesopotamian era * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples (Oor , Nenway ..)	2

Greek era * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples (Athena)	3
Roman era * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples (Roma , Bombay)	4
Medieval cities * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples (east , west)	5
Research (1) -Comparison of (Pharaonic era - Mesopotamian era- Greek era- Medieval cities)	6
Renaissance cities * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples	7
cities of the industrial age * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples	8
Conservation methods of Heritage architecture	10
Research (2) -Comparison of (Renaissance cities- cities of the industrial age)	11
Presentation of research (1)	12
Presentation of research (2)	13
Submission of semifinal researches	14
Submission of final researches	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and Simulation
Clo19		-	-	√	-		-	√	-	-	-	-
Clo20		-	-	√	-	√	-		-	-	-	-
Clo24	√	-	-	√	-	√	-	√	-	-	-	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	-
2	Written exam	**Clo19, Clo20, Clo24**
3	Discussions	**Clo19, Clo24**
4	Mid Term Exam	**Clo19, Clo24**
5	Class works	-
6	Projects	-
7	Researches	**Clo19, Clo20, Clo24**
8	Reports	-
9	Presentations	**Clo20, Clo24**
10	Quiz	-
11	Skiz	-

6.3 Weighting of Assessments

	Assessment Method	Weights%	Weights	Weights%	Weights
Teacher Opinion	Mid Term Exam	50%	50	10%	10
	Projects			20%	20
	Researches			10%	10
	Presentations			10%	10
Final Exam	Written exam	50%	50	50%	50
Total		100%	100	100%	100

7. List of References

1. عفيفى البهنسى، موسوعة التراث المعمارى (ج ٢)، المركز الحديث،سوريا، مؤسسة الشرق.2005.
2. خالد عزب،التراث الحضارى والمعمارى للمدن الإسلامية، ,كتب عربيه ,٢٠٠٢.
3. BSI Standards Publication, Guide to the conservation of historic buildings, The British Standards Institution 2014, ISBN:9780580295157, 058029515X.
4. Kabila Hamood, “Urban and Architectural Heritage Conservation Within Sustainability”, Published by: Intech Open,2019, ISBN:9781838808815, 1838808817.

6.2 Assessment Schedule

No.	Assessment Method	Weeks
1	Attendance	-
2	Written exam	16
3	Discussions	weekly
4	Mid Term Exam	9
5	Class works	-
6	Projects	-
7	Researches	6,10,13,14
8	Reports	-
9	Presentations	12
10	Quiz	-
11	Skiz	-

8. Facilities required for teaching and learning

Lecture/Classroom
Whiteboard
Data show

9. Matrix of Course Content with Course LO’s

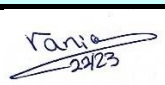
Topics	Aim	CLO's
Pharaonic era * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. Examples (kamon, Tal El-amarna)	1	**Clo24**
Mesopotamian era * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples (Oor , Nenway ..)	1	**Clo24**
Greek era * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings.	1	**Clo19, Clo24**

* Components of the city and architecture. * Examples (Athena)		
Roman era * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples (Roma , Bombay)	1	**Clo19, Clo24**
Medieval cities * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples (east , west)	1	**Clo19, Clo24**
Research (1) -Comparison of (Pharaonic era - Mesopotamian era- Greek era- Medieval cities)	1	**Clo19, Clo20**
Renaissance cities * Factors that affected the formation of the city and architecture * Components of the city and architecture. * Examples	1	**Clo19, Clo24**
cities of the industrial age(1) * Factors that affected the formation of the city and architecture * Components of the city and architecture. * Examples	1	**Clo19, Clo24**
cities of the industrial age(2) * Factors that affected the formation of the city and architecture * Planning and urban features and types of buildings. * Components of the city and architecture. * Examples	1	**Clo19, Clo20, Clo24**
Research (2) -Comparison of (Renaissance cities- cities of the industrial age)	1	**Clo19, Clo20, Clo24**
Presentation of researches	1	**Clo19, Clo20, Clo24**
Submission of semi final researches	1	**Clo19, Clo20, Clo24**
Submission of final researches	1	**Clo19, Clo20, Clo24**

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo10	Acquire and apply new knowledge; and practice self, lifelong and other learning strategies.	Clo19	Acquire and apply new knowledge.
		Clo20	Practice self, lifelong and other learning strategies.

Plo12	Produce designs that meet the requirements of building users by understanding the relationship between people and buildings, and between the buildings and their surrounding environment, with the necessity of linking the buildings and the spaces between them to the scale of humanity and its needs	Clo24	Deal with the relation between people, buildings, and their surrounding environment

Title	Name	Signature
Course coordinator	**Assoc. Prof./ Rania Badawy**	
Head of Department	**Assoc. Prof./ Reham Osman**	
Date of Approval	**1/10/2022**	

Course Specification

Course Code: Are 4263 Course Title: Elective Course (3) Urban Renewal

1. Basic information

Program Title	Architecture Engineering			
Department offering the program	Architecture Engineering			
Department offering the course	Architecture Engineering			
Course Code	ARE 4263			
Year/level	Fourth year /Fifth Level			
Specialization	Major			
Teaching Hours	Lectures	Tutorial	Practical	Total
	3	2	0	5

2. Course Aims

No.	Aim
1	link between the participating sectors in the construction and development operation of urban communities and between the graduates of the program in the fields of urban renewal (AM4.1)

3. Course Learning Outcomes (CLOs)

Clo7	Meet specified needs with consideration for social, economic and legal aspects of urban renewal
Clo8	Achieve the principles of design within the complex of urban problems, including unsanitary, deficient, or obsolete housing
Clo26	Prepare environmentally responsible designs to preserve and rehabilitate the environment

4. Course Contents

Topics	Week
Concepts, definitions, introduction to the issue of renewal of urban areas	1
Urbanization and expansion of urban cities- Heritage Impact Assessment	2
Urban Renewal Plans	3
urban regeneration policies in Egypt	4
Buildings Conservations	5
Restoration of culture heritage	6

Preservations of culture heritage	7
National urban renewal projects	8
International urban renewal projects	10
Release of the project	11
Tools for the implementation of revaluation processes of urban areas part 1	12
Tools for the implementation of revaluation processes of urban areas part 2	13
researches submission	14
Final Project submission	15

5. Teaching and Learning methods

Course learning Outcomes (CLOs)	Teaching and Learning Methods											
	Lectures	Assignment	Labs	Research and Reports	Projects	Presentation	Site Visits	Discussion and Dialogue	Brain storm	E-Learning	Self-learning	Modeling and simulation
Clo7	√	-	-				√	-	√	√		-
Clo8	√	-	-	√	√	√	√		√		√	-
Clo26		-	-	√	√	√					√	-

6. Students' Assessment

6.1 Students' Assessment Method

No.	Assessment Method	CLOs
1	Attendance	----------
2	Mid Term Exam	**Clo7, Clo8**
3	Projects	**Clo8, Clo26**
4	Researches	**Clo8, Clo26**
5	Presentations	**Clo8, Clo26**
6	Written Exam	**Clo7, Clo8, Clo26**

6.2 Assessment Schedule

No.	Assessment Method	Weeks
1	Attendance	weekly
2	Mid Term Exam	9
3	Projects	15
4	Researches	14
5	Presentations	15
6	Written Exam	16

6.3 Weighting of Assessments					
	Assessment Method	**Weights%**	**Weights**	**Weights%**	**Weights**
Teacher Opinion	Mid Term Exam	50	50	20	20
	Projects			10	10
	Researches			10	10
	Presentations			10	10
Final Exam	Written exam	50	50	50	50
Total		100	100	100	100

7. List of References

[1] Steffen L. (2019), Urban Regeneration, (2nd ed.). Palgrave Macmillan Cham- ISBN 978-3-030-04710-8

[2] Yanli W., Bing W., Linbo L.(2021). Urban Redevelopment and Traffic Congestion Management Strategies. Publisher: Springer Nature Singapore. ISBN : 9780415447706 A-d/132-

[3] Millspaugh M. & Gurney V. (2018). The Human Side of Urban Renewal: A Study of the Attitude Changes Produced by Neighborhood Rehabilitation. Sagwan Press,1st edition, ISBN-10 : 1376881357

8. Facilities required for teaching and learning

Lecture hall
White board
Google Classroom
Data show

9. Matrix of Course Content with Course LO's

Topics	Aim	CLO's
Concepts, definitions, introduction to the issue of renewal of urban areas	1	**Clo7**
Urbanization and expansion of urban cities- Heritage Impact Assessment	1	**Clo7, Clo8**
Urban Renewal Plans	1	**Clo8, Clo26**
urban regeneration policies in Egypt	1	**Clo7, Clo8**
Buildings Conservations	1	**Clo8, Clo26**
Restoration of culture heritage	1	**Clo7, Clo8, Clo26**
Preservations of culture heritage	1	**Clo8, Clo26**
National urban renewal projects	1	**Clo8, Clo26**
International urban renewal projects	1	**Clo8, Clo26**
Release of the project	1	**Clo7, Clo8, Clo26**

Tools for the implementation of revaluation processes of urban areas : land use plans, decisions pertaining to conditions of development.	1	**Clo7, Clo8, Clo26**
Semi Final Project & researches submission	1	**Clo7, Clo8, Clo26**
Final Project & researches submission	1	**Clo7, Clo8, Clo26**

10. Matrix of Program LOs with Course LOs

Program LOs		Course LOs	
Plo3	Apply engineering design processes to produce cost-effective solutions that meet specified needs with consideration for global, cultural, social, economic, environmental, ethical	**Clo7**	Meet specified needs with consideration for global, cultural, social, economic, environmental, and ethical aspects.
		Clo8	Achieve the principles of design within the principles and contexts of sustainable design and development.
Plo13	Preparing environmentally responsible designs to preserve and rehabilitate the environment through an understanding of urban renewal	**Clo26**	Prepare environmentally responsible designs to preserve and rehabilitate the environment

Title	Name	Signature
Course coordinator	**Dr. Yasmin Talaat Ismail**	
Head of Department	**Assoc Prof. Dr. Reham Othman**	
Date of Approval	**1/10/2022**	

برنامج الهندسة المعمارية
المعهد العالي للهندسة والتكنولوجيا
بالتجمع الخامس