Architectural Engineering

Program Report

(2022-2023)

And NARS 2018

1. Basic Information

Program title		Architectural Engineering, **ARC**
Program type		Single
Award / degree		B.Sc. Degree
Dept. (s) responsible		Architectural Engineering
Head of the Department:		Prof. Dr. Manal Yehia Tawfic
program Coordinator:		Prof. Dr. Manal Yehia Tawfic
External evaluator	11-09-2020	Associate Prof. Sahar Morsi Mohamed Mohamed Ali
	05-12-2021	Prof. Dr. Yousry Mohamed Mowafy
	27-03-2022	Prof. Dr. Wael Yousef
Date of program Operation		1995
Date of approval from the higher ministry of education		04/07/2019, no of the educational ministry approval 2381 02/12/2013, no of the educational ministry approval 4564
Date of the most recent approval of the Department council for program specification modifications as NARs 2018		Department council's board meeting in 27-09-2023

Notes: -

1. **Number of years of study:** The duration of the program is five academic years, including the preparatory year.
2. **Number of theoretical hours & number of practical hours:** 97 hours& 213 hours.
3. **The formation of committee's examiners:** The examiners are selected according to the specialization as in the levels from preparatory to 3rd level, the two of the examiners are selected for each course, while in the 4th level is three examiners.
4. **System of external examiners:** The external examiners are selected according to the specialization.

2. Professional Information

2.1. Statistics

- No. of students starting the program (admitted at 2019-2020)
  = 165 (Prep.) + 27 (Student transferred from other engineering departments)
- No. and percentage of students passing in each year/level/ semester. **Shown in table (1)**
- No. of students completing the program and as a percentage of those who started. **Shown in table (2)**
  153 / 192 = 79.6 %

Year		Number of students	No of passing	Percentage of passing
prep.	2018-2019	165	165	100 %
First	2019-2020	192	190	98.9 %
Second	2020-2021	190	178	93.6%
Third	2021-2022	178	176	98.8%
Fourth	2022-2023	175	169	96.57 %

Table (1): No. and percentage of students passing in each year/level/semester (2019-2020: 2022-2023)

Academic	Number	Percentage
students joining the program on Sept 2019	192	100%
students completing the program may 2023	152	79.16 %
students completing the program Nov. 2023	24	12.50 %
students completing the program 2023	169	88%

Table (2): -No. of students completing the program and as a percentage of those who started (2019 till 2023)

- Grading: No. and percentage in each grade. **Shown in table (3)**

Year 2020 -2021	Excellent		V. good		Good		pass		failed		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.
ARC - First	**0**	**0**	**3**	**3**	**42**	**36**	**27**	**23**	**47**	**39**	**119**
ARC - Second	**0**	**0**	**8**	**6**	**48**	**37**	**40**	**31**	**35**	**27**	**131**
ARC -Third	0	0	5	5	36	33	46	42	23	21	111
ARC - Fourth	0	0	16	9	73	42	80	46	6	3	175
Total											**536**

Table (3): No. and percentage of students passing in each grade- The Academic year 2022- 2023

Destinations of graduates: Table (4): No. and percentage of graduates from (499) as random sample

i. Proceeded to appropriate employment %	95.59%
ii. Proceeded to other employment %	Not available
iii. Undertaken postgraduate study %	14.22%
iv. Engaged in other types of activity %	1%
v. Unknown first destination %	8.8%

2.2. Academic Standards

2.2.1. The Contribution of the Program Los to the competences (NARS 2018)

The competences of the graduate (NARS 2018)			The LOs of the program of the graduate													
			A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5
a. General Competences for THE Engineering graduate	1	Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science and mathematics.	■														
	2	Develop and conduct appropriate experimentation and/or simulation, analyze and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions.		■													
	3	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.			■												
	4	Utilize contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues and risk management principles.				■											
	5	Practice research techniques and methods of investigation as an inherent part of learning.					■										
	6	Plan, supervise and monitor implementation of engineering projects, taking into consideration other trades requirements.						■									
	7	Function efficiently as an individual and as a member of multi-disciplinary and multicultural teams.							■								
	8	Communicate effectively – graphically, verbally and in writing – with a range of audiences using contemporary tools.								■							
	9	Use creative, innovative and flexible thinking and acquire entrepreneurial and leadership skills to anticipate and respond to new situations.									■						

	10	Acquire and apply new knowledge; and practiceself, lifelong and other learning strategies.														
b. Competencies for Architectural Engineering	11	Create architectural, urban and planning designs that satisfy both aesthetic and technical requirements, using adequate knowledge of: history and theory, related fine arts, local culture and heritage, technologies and human sciences.														
	12	Produce designs that meet building users' requirements through understanding the relationship between people and buildings, and between buildings and their environment; and the need to relate buildings and the spaces between them to human needs and scale.														
	13	Generate ecologically responsible, environmental conservation and rehabilitation designs; through understanding of: structural design, construction, technology and engineering problems associated with building designs.														
	14	Transform design concepts into buildings and integrate plans into overall planning within the constraints of: project financing, project management, cost control and methods of project delivery; while having adequate knowledge of industries, organizations, regulations and procedures involved.														
	15	Prepare design project briefs and documents, and understand the context of the architect in the construction industry, including the architect's role in the processes of bidding, procurement of architectural services and building production.														

2.2.2. The Contribution of the graduates attribute of the Program of (NARS 2018)

the attribute of the graduates		The general competences of the engineer										Architectural competences				
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5
1	Master a wide spectrum of engineering knowledge and specialized skills and can apply acquired knowledge using theories and abstract thinking in real life situations															
2	Apply analytic critical and systemic thinking to identify, diagnose and solve engineering problems															
3	Behave professionally and adhere to engineering ethics and standards															
4	Work in and lead a heterogeneous team of professionals from different engineering specialties and assume responsibility for own and team performance															
5	Recognize his/her role in promoting the engineering field and contribute in the development of the profession and the community															
6	Value the importance of the environment, both physical and natural, and work to promote sustainability principles															
7	Use techniques, skills and modern engineering tools necessary for engineering practice;															
8	Assume full responsibility for own learning and self-development, engage in lifelong learning and demonstrate the capacity to engage in post- graduate and research studies;															

9	Communicate effectively using different modes, tools and languages with various audiences; to deal with academic/professional challenges in a critical and creative manner;														
10	Demonstrate leadership qualities, business administration and entrepreneurial skills														

2.2.3. The Contribution of the graduates attribute of the Program of (NARS 2018)

	Program aims	The general competences of the engineer										Architectural competences				
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5
1	prepare specialized alumnus in the field of architecture and planning that cope with the needs of the national and the international labour market															
2	the ability to face the professional challenges of the future resulting from the fast technological development in all life aspects.															
3	develop the creativity of the student, his competitive spirit and his ability to attend experiments															
4	rehabilitate the student to resume the educational massage and the scientific research after his graduation															

	Program Mission	The general competences of the engineer										Architectural competences				
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5
1	Preparing creative architects familiar with modern science and technolog-ies to cope with the labor market needs.															
2	Prepare qualified alumni to share in the social charities within the scope of sustainable develop-ment.															
3	Develop the capabilities of the scientific research and the self- learning for the students.															

2.2.4. The contribution of the courses to the competences of the program (NARS 2018) According to the regulations of the academic curriculum 2019 for the first to the third level and the academic curriculum 2013 for the fourth level

A	Competencies of engineering graduate	The courses related to the competencies	The level of the course

A1	1. Identify, formulate, and solve complex engineering problems by applying engineering fundamentals, basic science, and mathematics.	PHM 011	**Mathematics (1)**	Basics and advanced
		PHM 013	**Physics (1)**	
		PHM 015	**Mechanics (1)**	
		CHE 011	**Chemistry (1)**	
		HUM 013	**Computer skills**	
		PHM 012	**Mathematics (2)**	
		PHM 014	**Physics (2)**	
		PHM 016	**Mechanics (2)**	
		ARC161	**Scigraphy & Perspective**	
		PHM141	**Statistics analysis**	
		CVE 131	**Surveying**	
		ARC162	**Formalization and architectural design principles and presentation**	
		ARC 141	**Computer applications in the architectural drawings**	
		PHM132	**Modelling Engineering**	
		CVE132	**Mechanics of structures**	
		PHM241	**Specific chemistry**	
		CVE231	**Concert and steel constructions**	
		HUM 243	**Legislation and contracts**	
		CVE 233	**Investigation of Soil and foundations**	
		PHM 341	**Specified Applied Physics**	
		ARC 3831	**Inhabitants of Valuable places**	
		ARC 444	Quantityes and specifications	

A2	2. Develop and conduct appropriate experimentation and/or simulation, analyze and interpret data, assess and evaluate findings, and use statistical analyses and objective engineering judgment to draw conclusions.	PHM 011	**Mathematics (1)**	Basics and advanced
		PHM 013	**Physics (1)**	
		PHM 015	**Mechanics (1)**	
		ARC 011	**Engineering drawings and projections (1)**	
		CHE 011	**Chemistry (1)**	
		HUM 013	**Computer skills**	
		PHM 012	**Mathematics (2)**	
		PHM 014	**Physics (2)**	
		PHM 016	**Mechanics (2)**	
		ARC 012	**Engineering drawings and projections (2)**	
		PHM141	**Statistics analysis**	
		CVE 131	**Surveying**	
		ARC162	**Formalization and architectural design principles and presentation**	
		HUM141	**History of Architecture (1)**	
		HUM241	**History of Architecture (2)**	
		ARC251	**introduction to Environmental Studies**	
		PHM241	**Specific chemistry**	
		CVE231	**Concert and steel constructions**	
		CVE 232	**Properties and resistance of materials**	
		ARC 241	**Computer applications in the architectural presentation**	
		ARC 371	**City planning (1)**	
		ARC 372	**City planning (2)**	
		PHM 341	**Specified Applied Physics**	
		ARC 373	**Land scape**	
		ARC 464	Urban Design	
		ARC 465	Regional planning	
		ARC 444	Quantityes and specifications	
		ARC 48x	Distenction course (4)	
A3	3. 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.	PHM 015	**Mechanics (1)**	advanced
		CHE 011	**Chemistry (1)**	
		PHM 016	**Mechanics (2)**	
		PHM 017	**Technology of production**	
		HUM014	**History of engineering and technology**	
		ARC121	**Architectural design (1)**	
		ARC122	**Architectural design (2)**	
		CVE132	**Mechanics of structures**	
		ARC251	**introduction to Environmental Studies**	
		PHM241	**Specific chemistry**	
		CVE231	**Concert and steel constructions**	
		CVE 232	**Properties and resistance of materials**	
		ARC 321	**Architectural design (5)**	
		ARC351	**Energy Efficiency in Buildings**	
		ARC 322	**Architectural design (6)**	
		ARC 47x	Distenction course (3)	
		ARC 444	Quantityes and specifications	
		ARC 402	Graduation Project (2)	
		ARC 48x	Distenction course (4)	

A4	4. Utilize contemporary technologies, codes of practice and standards, quality guidelines, health and safety requirements, environmental issues and risk management principles.	PHM 017	Technology of production	Basics and advanced
		HUM014	History of engineering and technology	
		ARC131	Architectural construction and building technology (1)	
		ARC132	Architectural construction and building technology (2)	
		ARC134	Field training (1)	
		ARC231	Architectural construction and building technology (3	
		ARC251	introduction to Environmental Studies	
		CVE231	Concert and steel constructions	
		ARC 232	Architectural construction and building technology (4)	
		CVE 232	Properties and resistance of materials	
		ARC 241	Computer applications in the architectural presentation	
		ARC 232	Field training (2)	
		ARC 331	Working designs (1)	
		ARC372	Geographical information systems (GIS)	
		ARC351	Energy Efficiency in Buildings	
		ARC333	Technical fixtures and treatments in buildings	
		ARC 332	Working designs (2)	
		PHM 341	Specified Applied Physics	
		ARC 451	Working designs (3)	
		ARC 452	Working designs (4)	
		ARC 491	GIS computer applications	
		ARC 48x	Distenction course (4)	
A5	5. Practice research techniques and methods of investigation as an inherent part of learning.	HUM014	History of engineering and technology	Basics and advanced
		ARC121	Architectural design (1)	
		ARC131	Architectural construction and building technology (1)	
		ARC111	Theories of Architecture(1)	
		ARC122	Architectural design (2)	
		ARC132	Architectural construction and building technology (2)	
		HUM141	History of Architecture (1)	
		CVE132	Mechanics of structures	
		HUM142	Specified technical English Language	
		ARC221	Architectural design (3)	
		ARC231	Architectural construction and building technology (3	
		HUM241	History of Architecture (2)	
		CVE231	Concert and steel constructions	
		HUM 242	History of city planning	
		ARC 222	Architectural design (4)	
		ARC 232	Architectural construction and building technology (4)	
		ARC 211	Theories of Architecture (2)	
		ARC 321	Architectural design (5)	
		HUM 341	History of Architecture (3)	
		ARC 371	City planning (1)	
		ARC 322	Architectural design (6)	
		ARC311	Theories of Architecture (3)	
		ARC 372	City planning (2)	
		PHM 341	Specified Applied Physics	
		ARC 3821	Architectural criticism issues	
		ARC 3831	Inhabitants of Valuable places	
		ARC 3841	Architecture, culture and heritage	
		ARC 373	Land scape	
		ARC 401	Architectural Deesign (7)	
		ARC 465	Regional planning	
		ARC 401	Graduation Project (1)	

A6	6. Plan, supervise and monitor implementation of engineering projects, taking into consideration other trades requirements.	PHM 017	Technology of production	Basics and advanced
		ARC131	Architectural construction and building technology (1)	
		CVE 131	Surveying	
		ARC132	Architectural construction and building technology (2)	
		CVE132	Mechanics of structures	
		ARC231	Architectural construction and building technology (3	
		CVE231	Concert and steel constructions	
		ARC 232	Architectural construction and building technology (4)	
		HUM 243	Legislation and contracts	
		CVE 233	Investigation of Soil and foundations	
		ARC 331	Working designs (1)	
		ARC333	Technical fixtures and treatments in buildings	
		ARC 332	Working designs (2)	
A7	7. Function efficiently as an individual and as a member of multi-disciplinary and multicultural teams.	HUM 011	Technical English Language	Basics and advanced
		HUM014	History of engineering and technology	
		HUM 011	Technical English Language	
		CVE 131	Surveying	
		HUM141	History of Architecture (1)	
		CVE132	Mechanics of structures	
		ARC134	Field training (1)	
		HUM241	History of Architecture (2)	
		CVE231	Concert and steel constructions	
		CVE 232	Properties and resistance of materials	
		ARC 232	Field training (2)	
		ARC 3811	Vernacular and Regional Architecture	
		ARC 3821	Architectural criticism issues	
		ARC 3831	Inhabitants of Valuable places	
		ARC 3841	Architecture, culture and heritage	
A8	8. Communicate effectively – graphically, verbally and in writing – with a range of audiences using contemporary tools.	ARC 011	Engineering drawings and projections (1)	Basics and advanced
		HUM 011	Technical English Language	
		ARC 012	Engineering drawings and projections (2)	
		PHM 017	Technology of production	
		HUM 011	Technical English Language	
		ARC111	Theories of Architecture(1)	
		HUM141	History of Architecture (1)	
		ARC 141	Computer applications in the architectural drawings	
		PHM132	Modelling Engineering	
		HUM241	History of Architecture (2)	
		HUM 242	History of city planning	
		ARC 211	Theories of Architecture (2)	
		ARC 241	Computer applications in the architectural presentation	
		ARC 331	Working designs (1)	
		ARC333	Technical fixtures and treatments in buildings	
		ARC 332	Working designs (2)	
		ARC311	Theories of Architecture (3)	

A9	9. Use creative, innovative and flexible thinking and acquire entrepreneurial and leadership skills to anticipate and respond to new situations.	ARC 011	Engineering drawings and projections (1)	advanced
		ARC 012	Engineering drawings and projections (2)	
		ARC121	Architectural design (1)	
		ARC162	Formalization and architectural design principles and presentation	
		ARC122	Architectural design (2)	
		HUM141	History of Architecture (1)	
		ARC 141	Computer applications in the architectural drawings	
		PHM132	Modelling Engineering	
		CVE132	Mechanics of structures	
		ARC221	Architectural design (3)	
		HUM241	History of Architecture (2)	
		CVE231	Concert and steel constructions	
		ARC 222	Architectural design (4)	
		ARC 321	Architectural design (5)	
		ARC 331	Working designs (1)	
		ARC 371	City planning (1)	
		ARC 322	Architectural design (6)	
		ARC 332	Working designs (2)	
		ARC 372	City planning (2)	
		ARC 464	Urban Design	
		ARC 465	Regional planning	
		ARC 47x	Distenction course (3)	
		ARC 402	Graduation Project (2)	
A10	10. Acquire and apply new knowledge; and practice self, lifelong and other learning strategies.	PHM 015	Mechanics (1)	Basic and advanced
		HUM 013	Computer skills	
		HUM 011	Technical English Language	
		PHM 016	Mechanics (2)	
		PHM 017	Technology of production	
		HUM014	History of engineering and technology	
		HUM 011	Technical English Language	
		ARC131	Architectural construction and building technology (1)	
		ARC111	Theories of Architecture(1)	
		ARC132	Architectural construction and building technology (2)	
		HUM141	History of Architecture (1)	
		ARC 141	Computer applications in the architectural drawings	
		PHM132	Modelling Engineering	
		HUM142	Specified technical English Language	
		ARC134	Field training (1)	
		ARC231	Architectural construction and building technology (3	
		HUM241	History of Architecture (2)	
		ARC251	introduction to Environmental Studies	
		CVE231	Concert and steel constructions	
		HUM 242	History of city planning	
		ARC 232	Architectural construction and building technology (4)	
		ARC 211	Theories of Architecture (2)	
		HUM 243	Legislation and contracts	
		CVE 233	Investigation of Soil and foundations	
		ARC 232	Field training (2)	
		HUM 341	History of Architecture (3)	
		ARC372	Geographical information systems (GIS)	
		ARC333	Technical fixtures and treatments in buildings	
		ARC311	Theories of Architecture (3)	
		ARC 3831	Inhabitants of Valuable places	
		ARC 3841	Architecture, culture and heritage	
		ARC 451	Working designs (3)	
		ARC 401	Graduation Project (1)	
		ARC 452	Working designs (4)	

B	Competencies of engineering graduate	The courses related to the competencies		The level of the course
B1	1. Create architectural, urban and planning designs that satisfy both aesthetic and technical requirements, using adequate knowledge of: history and theory, related fine arts, local culture and heritage, technologies and human sciences.	ARC111	Theories of Architecture(1)	advanced
		ARC162	Formalization and architectural design principles and presentation	
		HUM141	History of Architecture (1)	
		ARC221	Architectural design (3)	
		HUM241	History of Architecture (2)	
		HUM 242	History of city planning	
		ARC 222	Architectural design (4)	
		ARC 211	Theories of Architecture (2)	
		ARC 371	City planning (1)	
		ARC372	Geographical information systems (GIS)	
		ARC311	Theories of Architecture (3)	
		ARC 372	City planning (2)	
		ARC 3811	Vernacular and Regional Architecture	
		ARC 373	Land scape	
		ARC 401	Architectural Deesign (7)	
		ARC 465	Regional planning	
		ARC 47x	Distenction course (3)	
		ARC 402	Graduation Project (2)	
		ARC 491	GIS computer applications	
B2	2. Produce designs that meet building users' requirements through understanding the relationship between people and buildings, and between buildings and their environment; and the need to relate buildings and the spaces between them to human needs and scale.	ARC121	Architectural design (1)	Specialized and advanced
		ARC161	Scigraphy & Perspective	
		ARC162	Formalization and architectural design principles and presentation	
		ARC122	Architectural design (2)	
		ARC 141	Computer applications in the architectural drawings	
		PHM132	Modelling Engineering	
		CVE132	Mechanics of structures	
		ARC221	Architectural design (3)	
		ARC251	introduction to Environmental Studies	
		CVE231	Concert and steel constructions	
		ARC 222	Architectural design (4)	
		ARC 241	Computer applications in the architectural presentation	
		ARC 321	Architectural design (5)	
		ARC351	Energy Efficiency in Buildings	
		ARC 322	Architectural design (6)	
		ARC 3811	Vernacular and Regional Architecture	
		ARC 401	Architectural Deesign (7)	
		ARC 451	Working designs (3)	
		ARC 464	Urban Design	
		ARC 47x	Distenction course (3)	
		ARC 452	Working designs (4)	
		ARC 402	Graduation Project (2)	
		ARC 48x	Distenction course (4)	
B3	3. Generate ecologically responsible, environmental conservation and rehabilitation designs; through understanding of: structural design, construction, technology and engineering problems associated with building designs.	ARC131	Architectural construction and building technology (1)	Specialized and advanced
		ARC132	Architectural construction and building technology (2)	
		ARC231	Architectural construction and building technology (3	
		CVE231	Concert and steel constructions	
		ARC 232	Architectural construction and building technology (4)	
		ARC 321	Architectural design (5)	
		ARC 331	Working designs (1)	
		ARC351	Energy Efficiency in Buildings	
		ARC 322	Architectural design (6)	
		ARC 332	Working designs (2)	
		ARC 3831	Inhabitants of Valuable places	
		ARC 3841	Architecture, culture and heritage	
		ARC 401	Architectural Deesign (7)	
		ARC 451	Working designs (3)	
		ARC 452	Working designs (4)	
		ARC 48x	Distenction course (4)	

B4	4. Transform design concepts into buildings and integrate plans into overall planning within the constraints of: project financing, project management, cost control and methods of project delivery; while having adequate knowledge of industries, organizations, regulations and procedures involved.	ARC131 Architectural construction and building technology (1) ARC132 Architectural construction and building technology (2) HUM141 History of Architecture (1) ARC134 Field training (1) ARC231 Architectural construction and building technology (3 HUM241 History of Architecture (2) ARC 232 Architectural construction and building technology (4) ARC 232 Field training (2) ARC 331 Working designs (1) ARC333 Technical fixtures and treatments in buildings ARC 332 Working designs (2)	Specialized and advanced
B5	5. Prepare design project briefs and documents, and understand the context of the architect in the construction industry, including the architect's role in the processes of bidding, procurement of architectural services and building production.	ARC121 Architectural design (1) ARC131 Architectural construction and building technology (1) ARC161 Scigraphy & Perspective ARC122 Architectural design (2) ARC132 Architectural construction and building technology (2) HUM142 Specified technical English Language ARC231 Architectural construction and building technology (3 ARC 232 Architectural construction and building technology (4) ARC 321 Architectural design (5) ARC 331 Working designs (1) HUM 341 History of Architecture (3) ARC333 Technical fixtures and treatments in buildings ARC 322 Architectural design (6) ARC 332 Working designs (2) ARC 451 Working designs (3) ARC 401 Graduation Project (1) ARC 444 Quantityes and specifications ARC 452 Working designs (4)	Basics and advanced

2.2.5. The Contribution of the graduates attribute of the Program of (NARS 2018) According to the regulations of the academic curriculum 2019 for the first to the third level and the academic curriculum 2013 for the fourth level

Preparatory year's courses (List 2019)

Code		course	The Competence															
			General competence										specific competence					Sum
			A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	
preparatory	PHM 011	Mathematics (1)	1	1														2
	PHM 013	Physics (1)	1	1														2
	PHM 015	Mechanics (1)	1	1	1							1						4
	ARC 011	Engineering drawings and projections (1)		1						1	1							3
	CHE 011	Chemistry (1)	1	1	1													3
	HUM 013	Computer skills	1	1								1						3
	HUM 011	Technical English Language							1	1		1						3
	PHM 012	Mathematics (2)	1	1														2
	PHM 014	Physics (2)	1	1														2
	PHM 016	Mechanics (2)	1	1	1							1						4
	ARC 012	Engineering drawings and projections (2)		1						1	1							3
	PHM 017	Technology of production			1	1		1		1		1						5
	HUM014	History of engineering and technology			1	1	1		1			1						5
	HUM 011	Technical English Language							1	1		1						3
	Sum of The Competence		8	10	5	2	1	1	3	5	2	7	0	0	0	0	0	

First year's courses (List 2019)

Code		course	The Competence															
			General competence										specific competence					Sum
			A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	
1st Level	ARC121	Architectural design (1)			1		1				1			1			1	5
	ARC131	Architectural construction and building technology (1)				1	1	1				1			1	1	1	7
	ARC161	Scigraphy & Perspective	1											1			1	3
	ARC111	Theories of Architecture(1)					1			1		1	1					4
	PHM141	Statistics analysis	1	1														2
	CVE 131	Surveying	1	1				1	1									4
	ARC162	Formalization and architectural design principles and presentation	1	1							1		1	1				5
	ARC122	Architectural design (2)			1		1				1			1			1	5
	ARC132	Architectural construction and building technology (2)				1	1	1				1			1	1	1	7
	HUM141	History of Architecture (1)		1			1		1	1	1	1	1			1		8
	ARC 141	Computer applications in the architectural drawings	1							1	1	1		1				5
	PHM132	Modelling Engineering	1							1	1	1		1				5
	CVE132	Mechanics of structures	1		1		1	1	1		1			1				7
	HUM142	Specified technical English Language					1					1					1	3
	ARC134	Field training (1)				1			1			1				1		4
		Sum of The Competence	7	4	3	3	8	4	4	4	7	8	3	7	2	4	6	

Second year's courses (List 2019)

Code		course	The Competence															
			General competence										specific competence					Sum
			A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	
2nd Level	ARC221	Architectural design (3)					1				1		1	1				4
	ARC231	Architectural construction and building technology (3				1	1	1				1			1	1	1	7
	HUM241	History of Architecture (2)		1			1		1	1	1	1	1			1		8
	ARC251	introduction to Environmental Studies		1	1	1						1		1				5
	PHM241	Specific chemistry	1	1	1													3
	CVE231	Concert and steel constructions	1	1	1	1	1	1	1		1	1		1	1			11
	HUM 242	History of city planning					1			1		1	1					4
	ARC 222	Architectural design (4)					1				1		1	1				4
	ARC 232	Architectural construction and building technology (4)				1	1	1				1			1	1	1	7
	ARC 211	Theories of Architecture (2)					1			1		1	1					4
	CVE 232	Properties and resistance of materials		1	1	1			1									4
	ARC 241	Computer applications in the architectural presentation		1		1				1				1				4
	HUM 243	Legislation and contracts	1					1				1						3
	CVE 233	Investigation of Soil and foundations	1					1				1						3
	ARC 232	Field training (2)				1			1			1				1		4
		Sum of The Competence	4	6	4	7	8	5	4	4	4	10	5	5	3	4	2	

Third year's courses (List 2019)

Code		course	The Competence															
			General competence										specific competence					Sum
			A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	
3rd Level	ARC 321	Architectural design (5)			1		1				1			1	1		1	6
	ARC 331	Working designs (1)				1		1		1	1				1	1	1	7
	HUM 341	History of Architecture (3)					1					1					1	3
	ARC 371	City planning (1)		1			1				1		1					4
	ARC372	Geographical information systems (GIS)				1						1	1					3
	ARC351	Energy Efficiency in Buildings			1	1								1	1			4
	ARC333	Technical fixtures and treatments in buildings				1		1		1		1				1	1	6
	ARC 322	Architectural design (6)			1		1				1			1	1		1	6
	ARC 332	Working designs (2)				1		1		1	1				1	1	1	7
	ARC311	Theories of Architecture (3)					1			1		1	1					4
	ARC 372	City planning (2)		1			1				1		1					4
	PHM 341	Specified Applied Physics	1	1		1	1											4
	ARC 3811	Vernacular and Regional Architecture							1				1	1				3
	ARC 3821	Architectural criticism issues					1		1									2
	ARC 3831	Inhabitants of Valuable places	1				1		1			1			1			5
	ARC 3841	Architecture, culture and heritage					1		1			1			1			4
	ARC 373	Land scape		1			1						1					3
	Sum of The Competence		2	4	3	6	11	3	4	4	6	6	6	4	7	3	6	

Fourth year's courses (2013 list)

Code		course	The Competence															
			General competence										specific competence					Sum
			A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	
4th Level	ARC 401	Architectural Deesign (7)					1						1	1	1			4
	ARC 451	Working designs (3)				1						1		1	1		1	5
	ARC 464	Urban Design		1							1			1				3
	ARC 465	Regional planning		1			1				1		1					4
	ARC 401	Graduation Project (1)					1					1					1	3
	ARC 47x	Distenction course (3)			1						1		1	1				4
	ARC 444	Quantityes and specifications	1	1	1												1	4
	ARC 452	Working designs (4)				1						1		1	1		1	5
	ARC 402	Graduation Project (2)			1						1		1	1				4
	ARC 491	GIS computer applications				1						1	1					3
	ARC 48x	Distenction course (4)		1	1	1								1	1			5
	Sum of The Competence		1	4	4	4	3	0	0	0	4	4	5	7	4	0	4	

2.2.6. The relation between the objectives of the courses and the aims of the program

Course code		Courses of the program matching the aims	The aims of the program										
			1. prepare specialized alumnus in the field of architecture and planning that cope with the needs of the national and the international labor market, through the following means:			2. the ability to face the professional challenges of the future resulting from the fast technological development in all life aspects, through the following means:			3. develop the creativity of the student, his competitive spirit and his ability to attend experiments, through the following means:			4. rehabilitate the student to resume the educational massage and the scientific research after his graduation, through the following means:	
			rehabilitate the student within knowledge, skills, tools and capabilities that can help him in designing and implementing the architectural, urban and planning projects in the scope of sustainable development.	improving the spirit of the teamwork of the students in the different courses.	sharing in the social charities and demolishing sense of the personal tasks.	displaying the latest topics and projects in relation to the logic and the engineering knowledge.	rehabilitate the student to be in contact with the latest programs of design, planning and simulation, as to cope with the era and its fast development	develop the student skills and abilities to finish his tasks in the scope of the technological development.	support the students with the successive principles and standards for the architectural design and planning.	concentrate on the applicable fields that directly attach the human life.	display single and team work creative projects that support the solution of real or virtual problems	support the student with the bases of the scientific research and give him the Gide to conduct the applicable studies as means of joining the theories with the applications.	Enhance the role of the researches and the studies to solve the problems of the surrounding society and develop the nation's economy.
	PHM 011	Mathematics (1)					√						
	PHM013	Physics (1)					√						
	PHM015	Mechanics (1)					√						
	ARC 011	Engineering drawings and projections (1)					√						
	CHE 011	Chemistry (1)					√						
	HUM 013	Computer skills					v	√					
	HUM 011	Technical English Language					√						
	PHM 012	Mathematics (2)					√						
	PHM 014	Physics (2)					√						
	PHM016	Mechanics (2)					√						
	ARC 012	Engineering drawings and projections (2)	√	√		√		√	√	√	√	√	√
	PHM 017	Technology of production					√						
	HUM014	History of engineering and technology	√	√					√			√	√
	HUM 011	Technical English Language					√						
	ARC121	Architecture design (1)	√	√		√		√	√	√	√	√	√

	ARC 131	Architectural construction and building technology (1)	√	√		√		√	√	√	√	√	√
	ARC 161	Sygraphy and prespecttive	√	√		√		√	√	√	√	√	√
	ARC 111	Theories of Architecture(1)	√	√		√			√	√	√	√	√
	PHM 141	Statistical analysis					√						
	CVE 131	Survaying					√						
	ARC 162	Visualization and principles of design and architectural presentation	√	√		√			√		√	√	√
	ARC 122	Architectural design (2)	√	√		√		√	√	√	√	√	√
	ARC 132	Architectural construction and building technology (2)	√	√		√		√	√	√	√	√	√
	HUM 141	History of Architecture (1)	√	√					√			√	√
	ARC 141	Computer applications in the architectural drawings	√	√		√	√						√
	PHM 132	Geometry of stereoscopic objects	√	√		√		√	√				√
	CVE 132	Mechanics of structures	√	√		√						√	
	HUM142	Speciphic technical English Language		√									
	ARC134	Field training (1)	√	√		√		√		√	√	√	√
	ARC 221	Architectural design (3)	√	√		√		√	√	√	√	√	√
	ARC 231	Architectural construction and building technology (3)	√	√		√		√	√	√	√	√	√
	HUM 241	History of Architecture (2)	√	√					√			√	√
	ARC 251	Introduction to Environmental Studies	√	√					√			√	√
	PHM241	Spesific chemistry					√						
	CVE 231	Concret and steel constructions					√						
	HUM242	History of Town planning	√	√					√			√	√
	ARC 222	Architectural design (4)	√	√		√		√	√	√	√	√	√
	ARC 232	Architectural construction and building technology (4)	√	√		√		√	√	√	√	√	√
	ARC 211	Theories of Architecture(2)	√	√					√			√	√
	CVE 232	Properties and resistance of materials	√	√		√		√			√	√	
	ARC 241	Computer applications in the architectural presentation	√	√		√	√	√	√			√	
	HUM 243	Legiselation and contracts	√						√	√		√	√
	CVE 233	Investigation of Soil and foundations	√			√		√	√			√	
	ARC232	Field training (2)	√	√		√		√		√	√	√	√
	ARC 321	Architectural design (5)	√	√		√		√	√	√	√	√	√
	ARC 331	Working designs (1)	√	√		√		√	√	√	√	√	√
	HUM 341	History of Architecture (3)	√	√					√			√	√
	ARC 371	Urban planning (1)	√	√	√	√		√	√	√	√	√	√

	ARC372	Geographical information systems (GIS)	√	√		√		√	√		√	√	√
	ARC351	The efficiency of energy in buildings	√	√		√		√	√	√	√	√	√
	ARC 333	Technical fixtures and treatments in buildings	√	√		√		√	√	√	√	√	√
	ARC 322	Architectural design (6)	√	√		√		√	√	√	√	√	√
	ARC 332	Working designs (2)	√	√		√		√	√	√	√	√	√
	ARC 311	Theories of Architecture (3)	√	√					√			√	√
	ARC 372	Urban planning (2)	√	√	√	√		√	√	√	√	√	√
	PHM341	Specified Applicable Physics					√						
	ARC373	Land scape designs	√	√	√	√		√	√	√	√	√	√
Elective course (1)	ARC3811	Vernacular and Regional Architecture	√	√					√			√	√
	ARC3821	Architectural criticism issues	√	√					√			√	√
	ARC3831	Areas of Valuable urbanization	√	√					√			√	√
	ARC3841	Architecture, culture and heritage	√	√					√			√	√
	ARC421	Architectural design (7)	√	√		√		√	√	√	√	√	√
	ARC 431	Working designs (3)	√	√		√		√	√	√	√	√	√
	ARC 471	Udrban design	√	√	√	√		√	√	√	√	√	√
	ARC 472	Regional Planning	√	√	√	√		√	√	√	√	√	√
	ARC 422	Graduation project (1)	√	√		√		√	√	√	√	√	√
	ARC473	Housing	√	√	√	√		√	√	√	√	√	√
	HUM 431	Business administration Project mangment					√						
	ARC 423	Graduation project (2)	√	√		√		√	√	√	√	√	√
	ARC 432	Working designs (4)	√	√		√		√	√	√	√	√	√
	ARC424	Architectural Interior design	√	√		√		√	√	√	√	√	√
	HUM 432	Quantities and specifications	√	√					√			√	√
Elective course (2)	ARC 4812	Urban and civil conservation					√						
	ARC 4822	Environmental assessment for the projects	√	√					√			√	√
	ARC 4842	The bases of practicing the career	√	√		√		√		√	√	√	√
	ARC 4832	Urban Management and legislation					√						

2.2.7. The relation between the Specifications of the graduate and the mission of the program

Specifications of the graduate	The mission of the program		
	1. Preparing creative architects familiar with modern science and technologies to cope with the labour market needs.	2. Prepare qualified graduates have the ability to share in the social charities within the scope of the sustainable development.	3. Develop the Cabability of the scientific research and the self- learning for the students.
1. master a wide range of engineering knowledge and specialized skills and can apply knowledge gained using theories and abstract reasoning to real life situations;	√	√	√
2. Apply critical and systemic analytical thinking to identify, diagnose, and solve engineering problems of a wide range of complexity and variation;	√	√	√
3. Act professionally and adhere to engineering ethics and standards;			√
4. Work and lead a heterogeneous team of professionals from various engineering disciplines and take responsibility for own and team performance;	√	√	
5. Recognizing its role in promoting the engineering field and contributing to the development of the profession and society.	√	√	√
6. Appreciate the importance of the environment, both physical and natural, and work to promote principles of sustainability;			√
7. Use the techniques, skills, and modern engineering tools necessary for engineering practice	√	√	√
8. Take full responsibility for learning and self-development, engage in lifelong learning, and demonstrate the ability to participate in postgraduate and research studies;	√	√	√
9. Effective communication using different media, tools, and languages with different audiences; To deal with academic / professional challenges in a critical and creative manner;		√	√
10. Demonstrate leadership qualities, business management and entrepreneurial skills.	√		√

2.2.8. The relation between the Specifications of the graduate and the aims of the program

Specifications of the graduate	The aims of the program										
	1. prepare specialized alumnus in the field of architecture and planning that cope with the needs of the national and the international labor market, through the following means:			2. the ability to face the professional challenges of the future resulting from the fast technological development in all life aspects, through the following means:			3. develop the creativity of the student, his competitive spirit and his ability to attend experiments, through the following means:			4. rehabilitate the student to resume the educational massage and the scientific research after his graduation, through the following means:	
	rehabilitate the student within knowledge, skills, tools and capabilities that can help him in designing and implementing the architectural, urban and planning projects in the scope of sustainable development.	improving the spirit of the teamwork of the students in the different courses.	sharing in the social charities and demolishing sense of the personal tasks.	displaying the latest topics and projects in relation to the logic and the engineering knowledge.	rehabilitate the student to be in contact with the latest programs of design, planning and simulation, as to cope with the era and its fast development	develop the student skills and abilities to finish his tasks in the scope of the technological development.	support the students with the successive principles and standards for the architectural design and planning.	concentrate on the applicable fields that directly attach the human life.	display single and teamwork creative projects that support the solution of real or virtual problems	support the student with the bases of the scientific research and give him the Gide to conduct the applicable studies as means of joining the theories with the applications.	Enhance the role of the research and the studies to solve the problems of the surrounding society and develop the nation's economy.
1. master a wide range of engineering knowledge and specialized skills and can apply knowledge gained using theories and abstract reasoning to real life situations;	√		√	√	√	√	√	√	√	√	√
2. Apply critical and systemic analytical thinking to identify, diagnose, and solve engineering problems of a wide range of complexity and variation;	√			√	√	√	√	√	√		√
3. Act professionally and adhere to engineering ethics and standards;			√	√			√	√	√	√	√
4. Work and lead a heterogeneous team of professionals from various engineering disciplines and take responsibility for own and team performance;		√	√			√		√	√	√	
5. Recognizing its role in promoting the engineering field and contributing to the development of the profession and society.	√	√	√			√	√	√		√	√
6. Appreciate the importance of the environment, both physical and natural, and work to promote principles of sustainability;	√		√				√	√	√	√	√
7. Use the techniques, skills, and modern engineering tools necessary for engineering practice			√	√	√	√	√	√	√	√	√
8. Take full responsibility for learning and self-development, engage in lifelong learning, and demonstrate the ability to participate in postgraduate and research studies;	√	√	√			√		√		√	√
9. Effective communication using different media, tools, and languages with different audiences; To deal with academic / professional challenges in a critical and creative manner;	√	√	√	√		√	√	√	√	√	√
10. Demonstrate leadership qualities, business management and entrepreneurial skills.	√	√	√	√	√	√		√	√		√

2.3. Comments of external evaluator/ internal evaluator /stakeholders and graduates

Achievement of program learning outcomes LO's: (Appendix: in program specification)

Regarding to program matrix of Program Competencies versus courses, we observe the achievement of program learning outcomes to be covered by all courses taught.

a- Comments of the external and internal evaluators: (Appendix: External evaluator report)

The program of the Architectural Engineering Department –Shorouk Academy was reviewed and assessed by Prof. Sahar Morsi Mohamed, Prof. Dr. Yousry Mowafy, Prof. Dr. Wael Yousef and the internal evaluators' committee in the institute.

i- Comments of internal evaluator: (Appendix: Internal evaluator report)

The program of the Architectural Engineering Department –Shorouk Academy was reviewed and assessed by the internal evaluators' committee in the institute which consists of 13 members from different programs. The internal evaluators' committee consists of Prof. Dr. Mohamed Tawfiq (as a president for the committee), Associate Prof. Dr. Ghada Kadry (as a vice president for the committee) a no. of assistant professors and teaching assistances from different programs of the institute in addition to an administration member (as a committee administrator). They had some comments shown in the program specification. The quality assurance coordinator of the program responded to these comments as shown in the report.

Special Comments of internal evaluators' committee in the institute are as follows:

The point of discussion	Level of Achievement
Reviewing and updating the no. of staff members	Totally achieved
Reviewing the aims of the field training and confirming its achievement to the learning outcomes	Totally achieved
The references mentioned are updated to minimum 2018	Totally achieved
Studying to what extent the labor market needs are achieved by conducting questionnaires to beneficiaries and the graduates' employes regarding the graduate level and specifications and the program objectives.	Totally achieved
Appropriate teaching and learning methods used to achieve the outcomes of the course	Totally achieved
Quality of teaching and learning	Totally achieved
Student questionnaires in all subjects	Totally achieved

ii- Comments of external evaluator: (Appendix: External evaluator report)

The program of the Architectural Engineering Department –Shorouk Academy was reviewed and assessed by Prof. Sahar Morsi Mohamed, Prof. Dr. Yousry Mowafy, Prof. Dr. Wael Yousef as external evaluators. They had some comments shown in the program specification. The quality assurance coordinator of the program responded to these comments as shown in the report.

1. Special Comments of external evaluators "Prof. Sahar Morsi" are as follows:

% of acceptance / The point of discussion	Preparatory	First	second	Third	Fourth	total
Clarity of the objectives of the Couse	-	100%	74%	87%	90%	82.75%
Linking between the objectives of the course to the objectives of the program	-	-	-	-	-	-
Measurability of scheduled learning murals and outputs	-	87%	100%	100%	100%	96.75%
The marits and outputs of the scheduled learning are in line with the objectives of the course	-	-	-	-	-	-
-The proportionality of the decision are compatible with the program's wall matrix	-	100%	100%	94%	100%	98.5%
Appropriate teaching and learning methods used to achieve the outcomes of the course	-	94%	100%	100%	100%	98.5%
The contents of the course are up to date	-	94%	100%	100%	100%	98.5%
The means used for teaching and learning are appropriate for the methods mentioned	-	87%	100%	94%	100%	95.25%
The student evaluation methods used are appropriate	-	94%	100%	100%	100%	98.5%
The references mentioned are up to date	-	80%	74%	87%	90%	82.75%
Total		71.6%	64.8%	76.2%	78%	72.65%

- Linking between the objectives of the course to the objectives of the program are not incompatible
- The matrix and outputs of the scheduled learning are in line with the objectives of the course are not incompatible
- Setting academic standards – (- Unspecified)
- The adoption of academic standards hasn't be adopted by the College Council and the University Council
- Corrective action was not taken based on a review of standards
- The relation between the objectives of the courses and the aims of the program
- The matrix of the program is not corresponded to the specifications of the graduate of the program
- There is gab in the hours concerning math courses and applied courses

2. Special Comments of external evaluators "Prof. Dr. Yousry Mowafy" are as follows:

The program embraces the 2018 NARS National Reference Standards which correspond with the Architectural engineering graduate's specifications and the program also includes courses that correspond with the global development in the field of specialization.					
a- Basic data of the program					
Elements	**fulfilled**		**unfulfilled**		
Basic data.	√				
Coordinator's name.	√				
Evaluator's comments:	None				
B- Academic assessment:					
Program objectives:					
Objective formulation	√	**clear**		**unclear**	
Measurable	√	**quantitative**	√	**qualitative**	
Evaluator's comments:	None				
C- Program learning outcomes:					
Learning outcomes	√	**clear**		**unclear**	
Linking learning outcomes to program's objectives	√	**connected**		**not connected**	
Achieving the learning outcomes of the courses	√	**achieved**		**not achieved**	
The learning outcomes are correspondent to the program graduate's specifications	√	**correspondent**		**not correspondent**	
The learning outcomes of the program keep up with the scientific development in the field of specialization	√	**convoy**		**do not convoy**	
The learning outcomes of the program keep up with the labor market's needs	√	**convoy**		**do not convoy**	
Evaluator's comments:	The program embraces with the competencies of NARS 2018 which fit with the architectural program and its graduate.				
D-Academic Standards:					
Establishing academic standards	√	**specified**		**not specified**	
Suitability of academic standards to the graduate's specifications	√	**suitable**		**not suitable**	
Achieving the academic standards embraced with the program's specifications	√	**achieved**		**not achieved**	
Evaluator's comments:	The competencies of NARS 2018 which are embraced by the program are specific and fit with the graduate's specifications and are achieved through the program's specifications.				
E-Program structure and contents:					
Establishing academic standards **The program's structure balances with the graduate's specifications in terms of:** **- Basic sciences courses** **- Human and social sciences courses** **- Specialized courses** **- Practical and field training provided**					
Evaluator's comments:	The program's structure balances with the graduate's specifications according to the basic sciences courses, human and social sciences courses, the specialized courses and the training provided.				

F- Evaluation of the student's work:					
Program objectives:					
Objective formulation	√	**suitable**		**Not suitable**	
Evaluator's comments:	None				

G- Study sample of Program courses:

The methods of assessment in this part depend on the cautious review on the program's courses specifications.

% of acceptance / The point of discussion	CVE 231	CVE 233	CVE 232	Total
Clearance of the course objectives	100%	100%	100%	100%
Linking the course objectives to the program objectives	100%	100%	100%	100%
Measurability of the learning outcomes	100%	100%	100%	100%
Suitability of the learning outcomes to the course objectives	100%	100%	100%	100%
The learning outcomes correspond with the knowledge and skills matrices	100%	100%	100%	100%
Suitability of learning and teaching methods to the achievement of learning outcomes	100%	100%	100%	100%
The contents of the course are up to date	100%	100%	100%	100%
The teaching and learning resources are suitable for the mentioned methods	100%	100%	100%	100%
Appropriate student's evaluation methods	100%	100%	100%	100%
The references are up to date	100%	100%	100%	100%
Total	100%	100%	100%	100%

Evaluator's comments:	All the comments given to the program management on the program's specifications have been fulfilled as well as the self-study and its attachments (which were summarized in the need to attach the measures related to the Covid pandemic that have been taken in all the academic standards. As well as providing the academic standards with the attachments that give actual examples of the implementation of all indicators and practices. In addition to the updating of the mission and objectives of the program according to the new graduate 's specifications which consequential embrace with the 2018 NARS National Reference Standards). The program's objectives became clear due to the matrix that links the learning outcomes with the graduate's specifications and the matrix that links the program's structure and the graduate's specifications.

3. Special Comments of external evaluators "Prof. Dr. Wael Yousef" are as follows:

The current state of this program is relatively appropriate taking in concern some remarks mentioned formerly in details for each part of program evaluation. It is necessary to submit the program documents to the responsible committees and the governing councils to take what they deem appropriate towards the corrective actions in this program to overcome all the previous remarks and improve the program quality					
a- Basic data of the program					
Elements	**fulfilled**		**unfulfilled**		
Basic data.	√				
Coordinator's name.	√				
Evaluator's comments:	None				
B- Academic assessment:					
Program objectives:					
Objective formulation	√	**clear**		**unclear**	
Measurable	√	**quantitative**	√	**qualitative**	
Evaluator's comments:	None				
C- Program learning outcomes:					
Learning outcomes	√	**clear**		**unclear**	
Linking learning outcomes to program's objectives	√	**connected**		**not connected**	
Achieving the learning outcomes of the courses	√	**achieved**		**not achieved**	
The learning outcomes are correspondent to the program graduate's specifications	√	**correspondent**		**not correspondent**	

The learning outcomes of the program keep up with the scientific development in the field of specialization	√	**convoy**		**do not convoy**
The learning outcomes of the program keep up with the labor market's needs	√	**convoy**		**do not convoy**
Evaluator's comments:	The learning outcomes of the program are in line with the competencies of NARS 2018.			
D-Academic Standards:				
Establishing academic standards	√	**specified**		**not specified**
Suitability of academic standards to the graduate's specifications	√	**suitable**		**not suitable**
Achieving the academic standards embraced with the program's specifications	√	**achieved**		**not achieved**
Evaluator's comments:	- The description of the program did not show the date of approval of both the Institute's Board of Directors and the Department of Architecture on Adoption of the adoption of the National Academy Standard Standards .(2018 NARS) in the characterization of the architecture program			
E-Program structure and contents:				
Balance the program structure with the graduate's specifications in terms of: **- Human and social sciences courses (8%) consistent with the scope of the sector's frame of reference (8-10) %** **- Mathematics and basic sciences courses (18%) consistent with the range of the sector's frame of reference (18-22.) %** **- Basic engineering science courses (29.6%) consistent with the extent of the sector's frame of reference (25-30.) percent** **- Applied engineering and design courses (29.6%) consistent with the scope of the sector's reference framework (25-30) %** **- Project management decisions (3.6%) consistent with the scope of the sector's reference framework (2-4) %** **- Projects and field training courses (6%) consistent with the scope of the sector's frame of reference (4-6) %** **- Distinctive decisions of the institution (5.2%) consistent with the extent of the sector's reference framework (6-8).**				
Evaluator's comments:	- There is a balance in the structure of the mentioned program with the frame of reference for the design of regulations issued by the Engineering Sector 2016. - But the frame of reference for the design of regulations issued by the engineering sector 2020, has set a minimum number of decisions Mathematics and Basic Sciences 20% Note: When evaluating this part, reference should be made to the structures applied in the corresponding programs			
F- Evaluation of the student's work:				
Program objectives:				
Objective formulation	√	**suitable**		**Not suitable**
Evaluator's comments:	- The methods used in the assessment are generally appropriate to the nature of the intended learning outcomes			
G- Study sample of Program courses:				
.The evaluation in this part is based on a careful review of the course descriptions for the program				

% of acceptance / The point of discussion	Preparatory	First	second	Third	Fourth	total
Clarity of the objectives of the Couse	**100%**	**78%**	**87%**	**100%**	**100%**	**93%**
Linking between the objectives of the course to the objectives of the program	-	-	-	-	-	-
Measurability of scheduled learning murals and outputs	**100%**	**93%**	**100%**	**100%**	**100%**	**98.6%**
The marits and outputs of the scheduled learning are in line with the objectives of the course	-	-	-	-	-	-
The proportionality of the decision is compatible with the program's wall matrix	**57%**	**53%**	**47%**	**95%**	**56%**	**61.6%**
Appropriate teaching and learning methods used to achieve the outcomes of the course	**36%**	**53%**	**40%**	**71%**	**100%**	**60%**
The contents of the course are up to date	**100%**	**93%**	**100%**	**100%**	**100%**	**98.6%**
The means used for teaching and learning are appropriate for the methods mentioned	**97%**	**60%**	**93%**	**94%**	**100%**	**88.8%**
The student evaluation methods used are appropriate	**92%**	**53%**	**7%**	**65%**	**100%**	**63.4%**
The references mentioned are up to date	**7%**	**60%**	**40%**	**47%**	**69%**	**44.6%**
Total	**58.9%**	**54.3%**	**51.4%**	**67.2%**	**72.5%**	**60.86 %**

b- Comments of stakeholders: (Appendix: Assessment questionnaires on the courses)

The courses of the Architectural Engineering program are quite sufficient to enhance the skills of the graduates to cope with the job market requirements. However, graduates need to acquire more practical and professional skills. In addition, they need to get more presentations skills.

- The students must be strengthened in the English language.
- The graduates miss the connection between what they studied and its application in the labor market.
- The students must gain more computer skills and get trained on professional computer software as (office- AutoCAD- Photoshop- Sketchup- illustrator in design)
- The students must gain extra personal skills such as leadership, teamwork, work under stress, flexibility in dealing with others and ability to learn.

c- Comments of The graduates: (Appendix: Assessment questionnaires on the courses)

- Within the graduates' questioners in the teaching and learning strategy statements, Total percentage of strengthen points of the course = 81.96%
- As 541 students / graduates stated the following results: with 85.1% from the students' total number 635

2.4. Achievement of program aims

By reviewing the achievements of the program aims covered in relative to the achievements of the different educational aims in the courses, which vary according to the educational purpose of the courses, it is observed that the program aims were totally achieved as follows:

- Preparing creative architects through the architectural academic program by applying knowledge of Architectural engineering in Planning, designing, analysing and managing Architectural projects.
- Distinguishing the graduated architect in different disciplines to meet the needs of the labor market by strengthening the practical and professional skills necessary for employment in the field of Architectural engineering and developing general and transferable skills.
- Developing the scientific research to integrate with the contemporary industry and the local community requirements by defining, analysing and solve Architectural engineering problems and developing general and transferable skills for understanding.

The program aims were totally achieved as follows:

a. The program added this academic year various teaching and learning methods to Prepare creative architects, as follows:
   - Modelling courses (from the beginning of the academic year 2018- 2019 - physical/electronic) were used to upgrade the students in the 2nd level and the 4th level.
   - The students of the 4th level attended a training for the Parametric design to support the Graduation Project
   - The students of the 4th level attended a training for 3D modeling (Maquette) to support the Graduation Project
   - The students of the 4th level attended a training for computer application – animation to support the Graduation Project

b. The program upgraded the field of training as it was added as a course in the second term to improve the intellectual skills of the students in the 1st, 2nd and 3rd levels, As shown in the courses' files of the field training, and the reports of the field trainings …….. (Appendix: field training course file)

c. The scientific research was developed as follows:…….. (Appendix: Important reports)
   - The program staff members shared in the institute's research competition.
   - The research of the stuff members was directed towards the quality of life and sustainability.

2.5. teaching and learning methods:

shows the relation between the courses and the teaching and learning methods.

Preparatory year's courses (List 2019)

Code		Course	Teaching and Learning Methods / Teching and Learning Methods: Lectures Online-lecture	Presentations and Movies	Discussions	Tutorials Sketches	Practical in the tutorial hours	Problem solving	Brainstorming	Projects	Site visits	Research and Reports	Cooperative work
preparatory	PHM 011	Mathematics (1)	1			1		1					
	PHM 013	Physics (1)	1			1	1	1				1	
	PHM 015	Mechanics (1)	1			1		1					
	ARC 011	Engineering drawings and projections (1)	1			1							
	CHE 011	Chemistry (1)	1			1	1					1	
	HUM 013	Computer skills	1			1							
	HUM 011	Technical English Language	1										
	PHM 012	Mathematics (2)	1			1		1					
	PHM 014	Physics (2)	1			1	1	1				1	
	PHM 016	Mechanics (2)	1			1		1					
	ARC 012	Engineering drawings and projections (2)	1			1							
	PHM 017	Technology of production	1				1					1	
	HUM014	History of engineering and technology	1									1	
	HUM 011	Technical English Language	1										
	Sum of The Competence		14	0	0	10	4	6	0	0	0	5	0

First year's courses (List 2019)

Code		Course	Teaching and Learning Methods / Teching and Learning Methods: Lectures Online-lecture	Presentations and Movies	Discussions	Tutorials Sketches	Practical in the tutorial hours	Problem solving	Brainstorming	Projects	Site visits	Research and Reports	Cooperative work
1st Level	ARC121	Architectural design (1)	1	1		1			1	1		1	1
	ARC131	Architectural construction and building technology (1)	1	1		1		1	1	1	1		
	ARC161	Scigraphy & Perspective	1	1		1		1	1	1			
	ARC111	Theories of Architecture(1)	1	1	1	1		1	1	1			
	PHM141	Statistics analysis	1	1	1	1	1	1	1	1		1	1
	CVE 131	Surveying	1	1	1	1		1	1		1		
	ARC162	Formalization and architectural design principles and presentation	1	1	1	1		1	1	1	1	1	1
	ARC122	Architectural design (2)	1	1		1			1	1		1	1
	ARC132	Architectural construction and building technology (2)	1	1		1		1	1	1	1		
	HUM141	History of Architecture (1)	1	1	1	1		1	1	1	1	1	1
	ARC 141	Computer applications in the architectural drawings	1	1		1	1	1	1	1			
	PHM132	Modelling Engineering	1	1		1		1	1	1			
	CVE132	Mechanics of structures	1	1		1		1	1				
	HUM142	Specified technical English Language	1	1	1				1	1		1	
	ARC134	Field training (1)	1	1	1	1	1	1	1	1	1	1	1
	Sum of The Competence		15	15	7	14	3	12	15	13	6	7	6

Second year's courses (List 2019)

Code		Course	Teaching and Learning Methods: Lectures Online-lecture	Presentations and Movies	Discussions	Tutorials Sketches	Practical in the tutorial hours	Problem solving	Brainstorming	Projects	Site visits	Research and Reports	Cooperative work
2nd Level	ARC221	Architectural design (3)	1	1	1	1		1	1	1	1	1	1
	ARC231	Architectural construction and building technology (3	1	1	1	1		1	1	1			
	HUM241	History of Architecture (2)	1	1	1	1		1	1	1	1	1	1
	ARC251	introduction to Environmental Studies	1	1	1			1	1	1		1	
	PHM241	Specific chemistry	1	1	1	1	1	1	1	1			
	CVE231	Concert and steel constructions	1	1		1		1	1				
	HUM 242	History of city planning	1	1	1	1		1	1	1			
	ARC 222	Architectural design (4)	1	1	1	1		1	1	1	1	1	1
	ARC 232	Architectural construction and building technology (4)	1	1	1	1		1	1	1			
	ARC 211	Theories of Architecture (2)	1	1	1	1		1	1	1			
	CVE 232	Properties and resistance of materials	1	1	1	1		1	1	1			
	ARC 241	Computer applications in the architectural presentation	1	1	1		1			1		1	
	HUM 243	Legislation and contracts	1	1	1	1		1	1				
	CVE 233	Investigation of Soil and foundations	1	1	1	1		1	1				
	ARC 232	Field training (2)	1	1	1	1	1	1	1	1	1	1	1
	Sum of The Competence		15	15	14	13	3	14	14	12	4	6	4

Third year's courses (List 2019)

Code		Course	Teaching and Learning Methods: Lectures Online-lecture	Presentations and Movies	Discussions	Tutorials Sketches	Practical in the tutorial hours	Problem solving	Brainstorming	Projects	Site visits	Research and Reports	Cooperative work
3rd Level	ARC 321	Architectural design (5)	1	1		1			1	1	1	1	1
	ARC 331	Working designs (1)	1	1	1	1		1	1	1		1	
	HUM 341	History of Architecture (3)	1	1	1	1		1	1		1	1	1
	ARC 371	City planning (1)	1	1	1	1		1	1	1		1	1
	ARC372	Geographical information systems (GIS)	1	1	1		1			1			1
	ARC351	Energy Efficiency in Buildings	1	1	1	1		1	1	1		1	
	ARC333	Technical fixtures and treatments in buildings	1	1	1	1		1	1	1		1	
	ARC 322	Architectural design (6)	1	1		1			1	1	1	1	1
	ARC 332	Working designs (2)	1	1	1	1		1	1	1		1	
	ARC311	Theories of Architecture (3)	1	1	1	1		1	1	1			
	ARC 372	City planning (2)	1	1	1	1		1	1	1		1	1
	PHM 341	Specified Applied Physics	1	1	1	1	1	1	1	1			
	ARC 3811	Vernacular and Regional Architecture	1	1	1	1		1	1	1			
	ARC 3821	Architectural criticism issues	1	1	1	1		1	1	1			
	ARC 3831	Inhabitants of Valuable places	1	1	1	1		1	1	1			
	ARC 3841	Architecture, culture and heritage	1	1	1	1		1	1	1			
	ARC 373	Land scape	1	1	1	1		1	1	1		1	1
	Sum of The Competence		17	17	15	16	2	14	16	16	3	10	7

Fourth year's courses (2013 list)

Code		Course	Teaching and Learning Methods: Lectures Online-lecture	Presentations and Movies	Discussions	Tutorials Sketches	Practical in the tutorial hours	Problem solving	Brainstorming	Projects	Site visits	Research and Reports	Cooperative work
4th Level	ARC 401	Architectural Deesign (7)	1	1	1	1		1	1	1	1	1	1
	ARC 451	Working designs (3)	1	1	1	1		1	1	1			
	ARC 464	Urban Design	1	1	1	1		1	1	1		1	1
	ARC 465	Regional planning	1	1	1	1	1	1	1	1		1	1
	ARC 401	Graduation Project (1)	1	1	1	1		1	1	1		1	1
	ARC 47x	Distenction course (3)	1	1	1	1		1	1	1		1	
	ARC 444	Quantityes and specifications	1	1	1					1		1	
	ARC 452	Working designs (4)	1	1	1	1		1	1	1			
	ARC 402	Graduation Project (2)		1	1	1		1	1	1		1	1
	ARC 491	GIS computer applications	1	1	1		1			1			1
	ARC 48x	Distenction course (4)	1	1	1	1		1	1	1		1	
	Sum of The Competence		27	11	11	9	2	9	9	11	1	8	6

The program uses the following methods:

- Interactive lectures
- Tutorials/Sketches
- Projects
- Researches and Reports
- 3D modelling
- Site visits
- Practical and Laboratory
- Problem solving
- Brain storming
- Cooperative work
- Self learning
- Online lectures
- Presentations and Movies
- Discussions

2.6 Student Assessment (Methods and rules for student assessment):

shows the relation between the courses and the assessment methods.

Preparatory year's courses (List 2019)

Code		Course	Teaching and Learning Methods assessment methods							
			Quizzes	Discussions	Sheets	Researchs and reports	Projects	Practical measurements	Mid-term exam	Final exam
preparatory	PHM 011	Mathematics (1)	1		1	1			1	1
	PHM 013	Physics (1)	1		1	1		1	1	1
	PHM 015	Mechanics (1)	1		1	1			1	1
	ARC 011	Engineering drawings and projections (1)	1		1	1			1	1
	CHE 011	Chemistry (1)	1		1	1		1	1	1
	HUM 013	Computer skills	1		1	1			1	1
	HUM 011	Technical English Language	1	1					1	1
	PHM 012	Mathematics (2)	1		1	1			1	1
	PHM 014	Physics (2)	1		1	1		1	1	1
	PHM 016	Mechanics (2)	1		1	1			1	1
	ARC 012	Engineering drawings and projections (2)	1		1	1			1	1
	PHM 017	Technology of production	1					1	1	1
	HUM014	History of engineering and technology	1						1	1
	HUM 011	Technical English Language	1	1					1	1
		Sum of The Competence	14	2	10	10	0	4	14	14

First year's courses (List 2019)

Code		Course	Teaching and Learning Methods assessment methods							
			Quizzes	Discussions	Sheets	Researchs and reports	Projects	Practical measurements	Mid-term exam	Final exam
1st Level	ARC121	Architectural design (1)	1	1	1	1	1		1	1
	ARC131	Architectural construction and building technology (1)	1	1	1		1		1	1
	ARC161	Scigraphy & Perspective	1		1		1		1	1
	ARC111	Theories of Architecture(1)	1	1	1		1		1	1
	PHM141	Statistics analysis	1	1	1	1	1	1	1	1
	CVE 131	Surveying	1	1	1				1	1
	ARC162	Formalization and architectural design principles and presentation	1	1	1	1	1		1	1
	ARC122	Architectural design (2)	1	1	1	1	1		1	1
	ARC132	Architectural construction and building technology (2)	1	1	1		1		1	1
	HUM141	History of Architecture (1)	1	1	1	1	1		1	1
	ARC 141	Computer applications in the architectural drawings	1	1	1		1	1	1	1
	PHM132	Modelling Engineering	1	1	1		1		1	1
	CVE132	Mechanics of structures	1	1	1				1	1
	HUM142	Specified technical English Language	1	1	1	1	1		1	1
	ARC134	Field training (1)	1	1	1	1	1	1	1	
		Sum of The Competence	15	14	15	7	13	3	15	14

Second year's courses (List 2019)

Code		Course	Teaching and Learning Methods assessment methods							
			Quizzes	Discussions	Sheets	Researchs and reports	Projects	Practical measurements	Mid-term exam	Final exam
2nd Level	ARC221	Architectural design (3)	1	1	1	1	1		1	1
	ARC231	Architectural construction and building technology (3	1	1	1	1	1		1	1
	HUM241	History of Architecture (2)	1	1	1	1	1		1	1
	ARC251	introduction to Environmental Studies	1	1	1	1	1		1	1
	PHM241	Specific chemistry	1	1	1	1	1	1	1	1
	CVE231	Concert and steel constructions	1	1	1	1	1		1	1
	HUM 242	History of city planning	1	1	1	1	1		1	1
	ARC 222	Architectural design (4)	1	1	1	1	1		1	1
	ARC 232	Architectural construction and building technology (4)	1	1	1	1	1		1	1
	ARC 211	Theories of Architecture (2)	1	1	1	1	1		1	1
	CVE 232	Properties and resistance of materials	1	1	1	1	1		1	1
	ARC 241	Computer applications in the architectural presentation	1	1	1	1	1	1	1	1
	HUM 243	Legislation and contracts	1	1	1	1	1		1	1
	CVE 233	Investigation of Soil and foundations	1	1	1	1	1		1	1
	ARC 232	Field training (2)	1	1	1	1	1	1	1	
	Sum of The Competence		15	15	15	15	15	3	15	14

Third year's courses (List 2019)

Code		Course	Teaching and Learning Methods assessment methods							
			Quizzes	Discussions	Sheets	Researchs and reports	Projects	Practical measurements	Mid-term exam	Final exam
3rd Level	ARC 321	Architectural design (5)	1		1	1	1		1	1
	ARC 331	Working designs (1)	1	1	1	1	1		1	1
	HUM 341	History of Architecture (3)	1	1	1	1			1	1
	ARC 371	City planning (1)	1	1	1	1	1		1	1
	ARC372	Geographical information systems (GIS)	1	1	1		1	1	1	1
	ARC351	Energy Efficiency in Buildings	1	1	1	1	1		1	1
	ARC333	Technical fixtures and treatments in buildings	1	1	1	1	1		1	1
	ARC 322	Architectural design (6)	1		1	1	1		1	1
	ARC 332	Working designs (2)	1	1	1	1	1		1	1
	ARC311	Theories of Architecture (3)	1	1	1		1		1	1
	ARC 372	City planning (2)	1	1	1	1	1		1	1
	PHM 341	Specified Applied Physics	1		1		1	1	1	1
	ARC 3811	Vernacular and Regional Architecture	1	1	1		1		1	1
	ARC 3821	Architectural criticism issues	1	1	1		1		1	1
	ARC 3831	Inhabitants of Valuable places	1	1	1		1		1	1
	ARC 3841	Architecture, culture and heritage	1	1	1		1		1	1
	ARC 373	Land scape	1	1	1	1	1		1	1
	Sum of The Competence		17	14	17	10	16	2	17	17

Fourth year's courses (2013 list)

Code		Course	Teaching and Learning Methods assessment methods: Quizzes	Discussions	Sheets	Researchs and reports	Projects	Practical measurements	Mid-term exam	Final exam
4th Level	ARC 401	Architectural Deesign (7)	1	1	1	1	1		1	1
	ARC 451	Working designs (3)	1	1	1		1		1	1
	ARC 464	Urban Design	1	1	1	1	1		1	1
	ARC 465	Regional planning	1	1	1	1	1	1	1	1
	ARC 401	Graduation Project (1)	1	1	1	1	1			
	ARC 47x	Distenction course (3)	1	1	1	1	1		1	1
	ARC 444	Quantityes and specifications	1	1		1	1		1	1
	ARC 452	Working designs (4)	1	1	1		1		1	1
	ARC 402	Graduation Project (2)		1	1	1	1	1		
	ARC 491	GIS computer applications	1	1			1	1	1	1
	ARC 48x	Distenction course (4)	1	1	1	1	1		1	1
	Sum of The Competence		10	11	9	8	11	3	9	9

The program uses the following methods:

Written exam	Oral Exams	Discussions	Midterm Exam	Class works	Projects	Research
Reports	Presentations	Discussions	Laboratory	Exams	Quiz	

Remark:

Architecture Eingeneering depends on the researches and the projects, so the discussions are mainly concerning those teaching and learning methods. But the oral exams are concerning the practical courses especially those of basics courses or civil one.

The assessment methods used in the program courses were as following:
(quoting evaluations from external evaluator and other stakeholders):

1 .Written Exams (quizzes, mid-term, and final exam).
2 .Practical exams especially for Lab courses.
3 .Oral exams for the project, Lab courses and some other courses.
4 .Written reports.
5 .Presentations and discussions.

The current assessment methods of the program courses are considered quite appropriate due to the number of students enrolled in this program. These methods measure the program competencies (LO's) with reasonable accuracy.

2.7. Student achievement

The percentage of the students completing the programs and graduating this year as referred to the admitted students is around 86.9 % which is considered an excellent achievement.

Students' achievement through the program's levels

Students passing percentage

Year	Percentage
1St Year (2019 – 2020)	98.9 %
2nd Year (2020 – 2021)	93.6 %
3rd Year (2021 - 2022)	98.8 %
4th Year (2022 - 2023)	86.9 %

2.8. Quality of teaching and learning

These qualities are measured by the external evaluator, other stakeholders and student's assessment questioners on the courses and the final results as follows:

- Formulation of objectives is clear, and some are quantifiable and others qualitatively measurable. There is a matrix showing the relevance of the program's objectives to the graduate specifications.
- Graduate specifications are quantifiable and others qualitatively measurable.
- The Competencies in their entirety are clear and conform to the graduate's specifications and correspond to the scientific development in the field of specialization and the needs of the labor market. There is a matrix of the Program's Competencies with the Program's courses, which shows that the Program's Competencies are verified by the courses. The Competencies were dismantled into learning outcomes and the matrix of compatibility was done.
- Academic standards have been prepared to comply with NARS 2018, and the Electronics and Communications Engineering Program's reference academic standards consist of general A-level Competencies, electrical engineering B-level Competencies, and C-level Competencies specializing in electronics engineering and telecommunications. The academic criteria adopted by the program's description are specific and appropriate to the graduate's specifications.
- The structure of the program corresponds significantly to the reference framework for the preparation of bachelor's courses in engineering faculties.
- The methods used in the evaluation are suitable for the nature of the intended learning competencies and learning outcomes.
- Curriculum descriptions include key descriptions: course name, course code, course level, course content, learning outputs, intended Competencies, teaching and learning strategies, learning materials, evaluation methods, teaching hours, university book name, reference names, direct teaching hours and course teacher. However, it was noted in the descriptions of the preparatory team's courses that there was no table showing the relationship of teaching methods with the learning outcomes, and it was noted that the method of writing references in the descriptions of the preparatory team's courses was not uniform in all program courses, and that some of the references mentioned in the descriptions needed a review of the way they were written, in particular the publisher and the year of publication.
- There are reports for the University Year Program and Courses.
- All quality requirements are achieved in the program as well as intended competencies met to graduate a competent engineer and achieve the needs of the labor market.

1. The student's assessment questioners on the courses 2022– 2023:

- The average percentage of general student satisfaction with the courses during the academic year 2022/ 2023 = 78.2%

Division	Total %
First 2019	82.7%
Second 2019	82.8%
Third 2019	72.4%
Fourth 2013	75.2%
Average student satisfaction	78.2%

Results of the questionnaire about the first year's courses (List 2019)		
courses	Code of the course	Total %
ARC 121	Architectural design (1)	78%
ARC131	*Architectural construction* and building technology (1)	82%
ARC 161	Sciagraphy & perspectives	81%
ARC111	Theories of Architecture(1)	83%
PHM 141	STATISTICAL ANALYSIS	80%
CIV131	SURVEYING	81%
ARC162	Formation Design Principles and Architectural Representation	80%
ARC 122	Architectural Design (2)	83%
ARC 132	Architectural construction and building technology (2)	86%
HUM 141	History of Architecture 1	84%
ARC 141	Computer Applications –in Architectural drawing	83%
PHM 132	Engineering Modelling	86%
CVE 132	Mechanics of structures	84%
HUM 142	Specialized Technical English Language	85%
ARC 134	*Field Training (1)*	85%
Average rate of student satisfaction with first-year courses = 82,7%		

Results of the questionnaire about the decisions of the second year (List 2019)		
courses	Code of the course	Total %
ARC221	Architectural design (3)	80%
ARC231	Architectural construction and building technology (3)	83%
HUM241	History of Architecture (2)	81%
ARC251	Introduction to Environmental Studies	77%
PHM241	Specific chemistry	81%
CVE231	Concrete and steel constructions	82%
HUM 242	History of Cities Planning	80%
ARC 222	Architectural design (4)	78%
ARC 232	Architectural construction and building technology (4)	88%
ARC 211	Theories of Architecture (2)	87%
CVE 232	Properties and resistance of materials	82%
ARC 241	Computer applications in the architectural presentation	90%
HUM 243	Legislation and contracts	83%
CVE 233	Investigation of Soil and foundations	84%
ARC 232	Field training (2)	86%
Average rate of student satisfaction for second year students with courses = 82.8% **		

Results of the questionnaire about the decisions of the third year (List 2019)		
courses	Code of the course	Total %
ARC 321	Architectural design (5)	74%
ARC 331	Working Designs (1)	79%
HUM 341	History of Architecture (3)	83%
ARC 371	City planning (1)	81%
ARC 372	Geographical information systems (GIS)	73%
ARC 351	Energy Efficiency in buildings	76%
ARC 333	Technical Fixtures and Sanitary	68%
ARC 322	Architectural Design (6)	62%
ARC 332	Working Designs (2)	86%
ARC 311	Theories of architecture(3)	87%
ARC 372	City planning (2)	72%
PHM 341	Specified Applied physics	89%
ARC 3831	Elective Course: Inhabitants of valuable places	81%
ARC 373	Landscape	77%
Average rate of student satisfaction with the courses of the third year = 72.4 %		

Results of the questionnaire about the decisions of the fourth year (2013 list)		
courses	Code of the course	Total %
ARC401	Architectural design 7	80%
ARC451	Working designs (3)	61%
ARC464	Urban design	76%
ARC465	Regional planning	81%
ARC401	Graduation project (1)	79%
ARC 474	Elective Course: Interior design	77%
ARC 444	Quantities and specifications	71%
ARC 452	Working designs (4)	70%
ARC402	Graduation project	79%
ARC491	Computer application (GIS)	74%
ARC 484	Elective Course: The Efficiency of Energy in buildings	80%
Average rate of student satisfaction with the fourth year courses = 75.2% **		

The student's assessment questionnaires on the courses 2022-2023									
Code of the course	courses	The presence of online methods & the electronic site of the institute	The presence of the institute system exams, and with response to the course	The presence of lecturer (Course coordinator)	The presence of lecture & the teaching and learning method	The presence of the institute system and with response of Course coordinator	The presence of the course qualification and with the course contents	General Satisfaction	Average rate of student satisfaction
1st level / first term courses developed program - 2019									
ARC 121	Architectural design (1)	78%	81%	77%	81%	78%	72%	78%	80.7%
ARC131	Architectural construction and building technology (1)	83%	85%	79%	84%	83%	79%	82%	
ARC 161	Sciagraphy & perspectives	82%	83%	77%	84%	82%	76%	81%	
ARC111	Theories of Architecture(1)	83%	86%	79%	87%	84%	77%	83%	
PHM 141	STATISTICAL ANALYSIS	81%	82%	77%	83%	82%	75%	80%	
CIV131	SURVEYING	80%	84%	78%	84%	86%	78%	81%	
ARC162	Formation Design Principles and Architectural Representation	81%	81%	76%	83%	82%	75%	80%	
1st level / 2nd term courses developed program – 2019									
Code of the course	courses	The presence of online methods & the electronic site of the institute	The presence of the institute system exams, and with response to the course	The presence of lecturer (Course coordinator)	The presence of lecture & the teaching and learning method	The presence of the institute system and with response of Course coordinator	The presence of the course qualification and with the course contents	General Satisfaction	Average rate of student satisfaction
ARC 122	Architectural Design (2)	83%	86%	82%	84%	82%	81%	83%	84.4%
ARC 132	Architectural construction and building technology (2)	83%	88%	85%	87%	86%	86%	86%	
HUM 141	History of Architecture 1	83%	85%	83%	85%	85%	84%	84%	
ARC 141	Computer Applications –in Architectural drawing	82%	86%	82%	83%	85%	81%	83%	
PHM 132	Engineering Modelling	85%	88%	84%	88%	86%	85%	86%	
CVE 132	Mechanics of structures	85%	85%	84%	85%	85%	83%	84%	
HUM 142	Specialized Technical English Language	84%	86%	84%	85%	85%	85%	85%	
ARC 134	Field Training (1)	84%	87%	81%	87%	88%	82%	85%	

The student's assessment questionnaires on the courses 2022-2023									
Code of the course	courses	The presence of online methods & the electronic site of the institute	The presence of the institute system exams, and with response to the course	The presence of lecturer (Course coordinator)	The presence of lecture & the teaching and learning method	The presence of the institute system and with response of Course coordinator	The presence of the course qualification and with the course contents	General Satisfaction	Average rate of student satisfaction
Second level / first term courses developed program - 2019									
ARC221	Architectural design (3)	81%	83%	71%	82%	81%	77%	80%	80.5%
ARC231	Architectural construction and building technology (3)	84%	86%	80%	87%	83%	80%	83%	
HUM241	History of Architecture (2)	82%	82%	77%	83%	81%	79%	81%	
ARC251	Introduction to Environmental Studies	78%	79%	74%	78%	79%	75%	77%	
PHM241	Specific chemistry	83%	83%	76%	83%	84%	79%	81%	
CVE231	Concrete and steel constructions	83%	84%	79%	85%	83%	79%	82%	
HUM 242	History of Cities Planning	82%	82%	77%	82%	81%	77%	80%	
Second / 2nd term courses developed program – 2019									
Code of the course	courses	The presence of online methods & the electronic site of the institute	The presence of the institute system exams, and with response to the course	The presence of lecturer (Course coordinator)	The presence of lecture & the teaching and learning method	The presence of the institute system and with response of Course coordinator	The presence of the course qualification and with the course contents	General Satisfaction	Average rate of student satisfaction
ARC 222	Architectural design (4)	77%	79%	77%	79%	78%	77%	78%	84.5%
ARC 232	Architectural construction and building technology (4)	86%	89%	86%	91%	89%	86%	88%	
ARC 211	Theories of Architecture (2)	87%	88%	85%	89%	86%	84%	87%	
CVE 232	Properties and resistance of materials	83%	82%	82%	83%	84%	81%	82%	
ARC 241	Computer applications in the architectural presentation	90%	91%	89%	92%	91%	88%	90%	
HUM 243	Legislation and contracts	82%	86%	80%	84%	82%	81%	83%	
CVE 233	Investigation of Soil and foundations	85%	85%	82%	84%	86%	83%	84%	
ARC 232	Field training (2)	86%	87%	85%	86%	89%	86%	86%	

The student's assessment questionnaires on the courses 2022-2023									
Code of the course	courses	The presence of online methods & the electronic site of the institute	The presence of the institute system exams, and with response to the course	The presence of lecturer (Course coordinator)	The presence of lecture & the teaching and learning method	The presence of the institute system and with response of Course coordinator	The presence of the course qualification and with the course contents	General Satisfaction	Average rate of student satisfaction
Third level / first term courses developed program - 2019									
ARC 321	Architectural design (5)	75%	76%	72%	70%	75%	74%	74%	76.2%
ARC 331	Working Designs (1)	78%	80%	78%	80%	81%	76%	79%	
HUM 341	History of Architecture (3)	84%	86%	79%	87%	84%	79%	83%	
ARC 371	City planning (1)	81%	83%	79%	80%	83%	78%	81%	
ARC 372	Geographical information systems (GIS)	72%	74%	72%	75%	78%	73%	73%	
ARC 351	Energy Efficiency in buildings	73%	79%	78%	79%	76%	74%	76%	
ARC 333	Technical Fixtures and Sanitary	68%	72%	67%	65%	65%	67%	68%	
Third level / 2nd term courses developed program – 2019									
Code of the course	courses	The presence of online methods & the electronic site of the institute	The presence of the institute system exams, and with response to the course	The presence of lecturer (Course coordinator)	The presence of lecture & the teaching and learning method	The presence of the institute system and with response of Course coordinator	The presence of the course qualification and with the course contents	General Satisfaction	Average rate of student satisfaction
ARC 322	Architectural Design (6)	65%	65%	59%	56%	65%	60%	62%	79.1%
ARC 332	Working Designs (2)	84%	87%	88%	88%	85%	85%	86%	
ARC 311	Theories of architecture(3)	87%	88%	87%	90%	85%	86%	87%	
ARC 372	City planning (2)	73%	74%	71%	68%	77%	73%	72%	
PHM 341	Specified Applied physics	90%	89%	89%	91%	89%	87%	89%	
ARC 3831	Elective Course: Inhabitants of valuable places	80%	83%	81%	82%	82%	79%	81%	
ARC 373	Landscape	79%	76%	75%	73%	81%	75%	77%	

The student's assessment questionnaires on the courses 2022-2023									
Code of the course	courses	The presence of online methods & the electronic site of the	The presence of the institute system exams, and with response to the course	The presence of lecturer (Course coordinator)	The presence of lecture & the teaching and learning method	The presence of the institute system and with response of Course coordinator	The presence of the course qualification and with the course contents	General Satisfaction	Average rate of student satisfaction
Fourth level / first term courses developed program - 2013									
ARC 444	Architectural design 7	79%	83%	79%	80%	81%	76%	80%	75.4%
ARC 452	Working designs (3)	58%	64%	61%	60%	64%	61%	61%	
ARC402	Urban design	75%	79%	75%	79%	78%	74%	76%	
ARC491	Regional planning	79%	85%	78%	85%	84%	76%	81%	
ARC 484	Graduation project (1)	78%	82%	79%	81%	81%	77%	79%	
ARC 444	Elective Course: Interior design	75%	80%	78%	79%	77%	75%	77%	
|Fourth level / 2nd term courses developed program – 2013									
Code of the course	courses	The presence of online methods & the electronic site of the	The presence of the institute system exams, and with response to the course	The presence of lecturer (Course coordinator)	The presence of lecture & the teaching and learning method	The presence of the institute system and with response of Course coordinator	The presence of the course qualification and with the course contents	General Satisfaction	Average rate of student satisfaction
ARC 444	Quantities and specifications	70%	73%	70%	71%	73%	69%	71%	74.8%
ARC 452	Working designs (4)	69%	72%	69%	69%	72%	69%	70%	
ARC402	Graduation project	77%	81%	80%	79%	82%	78%	79%	
ARC491	Computer application (GIS)	72%	75%	72%	74%	79%	74%	74%	
ARC 484	Elective Course: The Efficiency of Energy in buildings	80%	81%	81%	82%	80%	78%	80%	

2.9. Effectiveness of student support systems

Commentary on both academic and pastoral/personal support for all students

- The department is interested in the students' support, through the following:
  - Divide the students of the same level into sections and the distribution of the studying schedule to optimize the use of lecture halls and lab. Rooms
  - Use online lecture (Cause Covid 19)
- A system was developed to follow-up with the complaints and solve the problems of students through the distribution of the responsibility on the institute members to quickly resolve the problems and respond rapidly.
  - The periodic meeting with students' representatives to quickly solve the problems of the students.
  - The final revision for the studied courses at the end of each semester to assist low caliber students.
  - Students are helped in the case of special circumstances such as cases of the disease, the death of a parent, injuries during an incident, by taking into account the circumstances of each case in providing the requirements of this year, especially in materials that rely on semester marks and attendance. Encouraging high-grade (excellent and very good) students by discounts on their educational fees.

Remark

- There is a system of leadership and student communication, whether through the formation of committees for leadership and student communication approved and announced, specialized in presenting and discussing the requirements and suggestions of students, guiding them, and informing them of the developments of the educational process.
- The minutes of leadership and student communication that include the requirements and suggestions of students are presented and discussed to the department council to take the necessary corrective measures in this regard.
- There is a student support unit at the institute, and it has an approved and announced formation and provides many services to students, including the following:
- Coordination with the leaders of the study teams to identify the problems facing the students.
- Develop proposals and address students' problems and submit them to Prof. Dr./ Dean of the Institute.
- Determining the aspects of moral and social support necessary for either outstanding or faltering students.
- Students' opinion is taken about the order of the courses in the mid- and end-of-semester examination schedules.
- Full support is provided to students in the field of electronic services through the administration of the department and the e-learning development unit at the institute in terms of providing full technical support to students and answering their inquiries in the field of electronic services, in addition to preparing and preparing videos to train students to use the e-learning platform (Moodle) and how to deal with the platform in uploading reports, research and examination performance and follow-up of the scientific content of the courses.
- Students are assisted and encouraged to find cooperation with external bodies such as the Egyptian Space Agency and the Academy of Scientific Research in the field of implementing and supporting graduation projects.
- Training courses and field visits are provided to students at discounted prices to link their courses to the practical aspects of the labor market.
- Provide an email for each student through which instructions and results are sent to students.

2.8. Learning resources

A. No. and ratio of faculty members and their assistants to students this year 2021-2022:

Level	No. of students in the mainstream
1st level	119
2nd level	131
3rd level	118
4th level	176
Total No. of students	544

- No. of students= 176+118+131+119 = 544
- No. of program faculty members = 21
- No. of program Faculty out posted members = 8
- No. of program faculty member assistants = 61
- No. of program faculty members and their assistants = 90
- No. of faculty members / No. of students = 25/544 (about one faculty member for 21 students)
- No. of faculty members and assistants / No. of students = 61/544 (about one faculty member for 8 students)

B. Matching of faculty members' specialization to program needs. (Appendix: program specification)

There are sufficient faculty members in each specialization to satisfy all program needs

C. Availability and adequacy of program handbook

There is a no handbook for all the program courses. but each course file includes as study Plans as time schedule for the course and full description. Moreover, the institute offers a primary E- learning site, as 90% of the courses (specifications, schedules, and lectures) are uploaded on it. And the references are mentioned in the course and most of them are offered by the library of the institute.

D. Adequacy of library facilities.

The institute library is adequate, due to the following:

a. Sufficient number of computers connected to the internet.
b. There is an adequate space, adequate lighting, adequate ventilation, computerized search.
c. There is enough recent textbook. This year the library offers new design references. But it must be fitted by some references for the following fields and courses:
   - Environmental control
   - Working details
   - Building construction
   - Computer programs
   - Visual training

E. Adequacy of laboratories

The department has 7 laboratories, as: 4 laboratories for computer applications fitted with licensed programs and 3 Specialized laboratories as laboratory for the environmental control applications, stereoscopic lab and a virtual reality lab. But the graduated engineers have mentioned that the laboratories hours are insufficient for the student's practice. The available computer labs are adequate compared to the large number of students. Computer facilities are adequate. And Internet access is now available for the institute staff and for students through a wireless network covering the building.

G. Adequacy of field/practical training resources (Appendix: field training course file)

- The program approved in 2013 afforded the training for the students in three levels (1st, 2nd, and 3rd) to be 36 hours as a summer course for each level. And it gives the student the choice to compare between three companies permit the training.
- The program approved in 2019 afforded the training for the students in two levels (1st, 2nd)
- The department prepared a committee to assess the training field.
- The department revised the problems occurred in the training of the last year to overcome any complains of the students.

H. Adequacy of any other program needs (Appendix: Action plans & gap study of the program)

- More staff members & and more assistances
- more reference
- implement the program gap study

First	• Informing the students with the addition of the references to the digital library and encouraging the students to use them in their research
Second Documents used	• Informing the students with the addition of the references to the digital library and encouraging the students to use them in their research • Methods of attracting students and international students to the program • Updating the methods of attracting students and international students to the program in addition to adding surveys • Updating the methods of the following up with the stumbled students and activating it • Updating the methods of improving the capabilities of the graduate student and activating it • Updating the methods of advertising for the program mission, goals, and attributes. • Updating the program attributes. • Modifying the final form for the program attributes and goals to match with the higher institute of engineering (Al .Shorouk higher institute of engineering) , & and Ministry of higher education attributes and goals. • Modifying the organizational chart for the program to it final form and taking the approval on it • A study & a plan were made to fit the number of institutions teaching members to the number of students and overcome the shortage in institution teaching members • A criteria was done to choose the new institution teaching members it was approved and activated to explain the institution standards of NARS 2018. • Workshops & seminars were done to explain the institution standards of NARS 2018 • Modifying the program specifications in the institution regulations of 2013 & 2019 to match NARS 2018 and a plan was made to fill the gap.

2.9. Quality management

The institute has approved as a qualified institute last year

A. Availability of regular evaluation and revision system for the program

- The institute offers the evaluations and revisions for curriculum within the external evaluator and internal one……..(Appendix: External evaluator report)
- Students' questionnaire Stakeholder's questionnaire ....(Appendix: Assessment questionnaires on the courses)
- Evaluation of exam papers……..(Appendix: the evaluation for the exam paper quality)
- Improvement plan……..(Appendix: the Action plans 2021-2022)

B. Effectiveness of the system

The quality management system is effective since there are:

- Quality management regulations.
- Feedback for the program evaluation.
- Corrective actions for program flaws.

C. Effectiveness of the department and the institute Laws and Regulations for Progression and Completion

Most the actions of the last report were applied neatly and were very effective for the system.

D. Effectiveness of program external evaluation system:

I- External evaluators

The department program is evaluated by qualified external evaluators. …….…… (Appendix: External evaluator report)

II- Students/ graduates

The program courses, the teaching methods and the assessment methods of the courses are evaluated by the students each semester in form of questionnaires formed online handed. As for the graduates there is a questionnaire done to a percentage of them to evaluate the whole program.

III- stakeholders

All the questionnaires are discussed to improve the program. ……..(Appendix: Assessment questionnaires on the courses)

E. The department response to student and external evaluations

All the external evaluator's comments were taken in consideration and are stated with the department response in the "Program Specification"……..……(Appendix: Program Specification)
There is an action plan set to be implemented in the following academic year. ……(Appendix: the Action plans 2021-2022)

3. Proposals for program development

A. Program structure (contact hours)

The program structure was modified according to comment of internal and external evaluator and the stakeholders, and a developed program these courses are classified according to the relevant sector NARS requirements to the following subject areas:

1 .Humanities and Social Sciences
2 .Mathematics and Basic Sciences
3 .Basic Engineering Sciences
4 .Applied Engineering and design
5 .Computer Application and ICT
6 .Projects and Practice
7. Selective

B. Staff development requirements

- The scientific information is upgraded by sharing international conferences and workshops.
- The institute offered this year 8 Specific practical and applied trainings in form of workshops to improve the whole staff members. As the participants were 19 staff members in the department and 10 casual lecturer.

The staff members	practical and applied trainings															
	Self-assessment of the higher educational institutes	Programs and courses specification / assessing ILOs	External assessment for the higher educational institutes	The electronic education	The quality assurance in teaching process	The international publication for the scientific researches	The new trends for teaching	The strategic planning for the higher educational institutes	Using technology in teaching	Designing digital courses	Effective display and connectivity skills	Teaching for numerous students	Academic managers and leadership	Statistics data analysis (Spss)	The flexibilities in the exams and controls targets	The ways of forming Exams and assessing them	Strategies of effective teaching and learning
Prof dr. Samy Seag el din												*					
Prof dr. Moataz Tolba	*	*	*	*	*			©					*			©	©
prof. dr. Manal Yehia Tawfik			©	*	*			*									
prof. dr.Randa Hassan Mohamed			©		*	*	*		*				*			©	©
Assistant prof Dr. hussam Bahgat		*				*	*	©		*	*			*		©	
Dr. Doaa Wafik		*			*			*		*						©	
Dr. Amr El Gohary										*	*					©	
Dr. Mohamed Mohamed El Sayed									*								
Dr. Maha fawzy			©			*	*	©								©	©
Dr. Rania Khalifa			©														
Dr. Amna Abd El Hafiez						*		©								©	©
Dr.Mai Metarik		#	©	*		*	*					©					
Dr. Eman Metwaly			©			*	*										
Dr. Mona Saleh						*											
Dr. Ahmed Hamdy				*													
Dr. Engy Sayeed		#									*	*					
Assesstant lecturer Reham Rashed					*	*											
Assesstant lecturer Omnia fawzy							*										
Assesstant lecturer Dina Nabil											*						
T.Assesstant Rasha Abd El Hady						*											

T.Assesstant Rana Osama												*	*				©
T.Assesstant Heba Gamal																	©
T.Assesstant Eslam Waleed							#										
T.Assesstant Mohamed waheed							#										
T.Assesstant Omnia Akram							#										
T.Assesstant Mariam Ali							#										
T.Assesstant Eyad Ashraf							#										
T.Assesstant Omar Ahmed							#										
T.Assesstant Veronia Emad							#										
# © *	The participants this year 2021 -2022 The participants year 2020 -2021 The participants in the previous 3 years																

4.Progress of previous year's action plan 2022 -2023

Fields of development		Action	responsible person	Status
1st level (teaching and learning effectiveness)	**Improving the field training**	Revising the field training course contents and fees with the companies responsible for it Improving the observers performance in the field	The department coordinator with the prof responsible for the field training courses	Done 100%
	Improving the performance of the staff members in computer courses	Preparing and improving the skills of min. 5 assistant staff member/ at each program per year 2022-2025 in the following programs: • BIM • Photoshop • 3D max • Sketch up	The department coordinator with the training admission unit	
	Improve the untraditional methods of teaching	Supporting the history of architecture courses (1,2,3) , landscape course , and history of city planning course by scientific trips	The department consultant with the history courses coordinators+ the Din and the transportation admission unit	Done 25%
	Developing the department program	Revising the latest integrated program	The department consultant with the quality assurance coordinator of the program	Done 100%
	Improving the courses of the program	Revising the courses of the developed program which the external evaluator referred to Review the proposals for the development of the new architectural program (2024) , list of courses referred to by the Related Categories	The courses coordinators	
2nd level (the institute	**Improving the capabilities of the laboratories**	Increasing the no. of the computer labs and supporting them by suitable computers Supporting the computer labs by environmental design original programs	The financial admission department + IT unit	Done 100%
	Improving the department tools	Development of computer laboratories : Establish Modeling labs to assist the students in improving their innovation and creativity in design courses (with 2 new camera)	The department coordinator + the din + the financial admission department	Done 100%

		Establish computer lap with 20 new computer Establish store areas for storing the students kept record projects		
	The students financial support in the training field	Cash free course	The din + the financial admission department	Done 75%
	Developing the skills of the staff assistant members	Support the staff assistant members by a practical course in how to deal with students	The department coordinator + the din + the training admission unit	
	Improving the library	Supporting the library by boxes for the following courses: • Technical equipment and installations • Management of projects and laws. • Geometric drawing • Architecture and Nanotechnology • Preservation and restoration • Environmental control • Working details • Building construction • Computer programs (BIM – GIS – 3D Max – Photoshop – Sketchup – Primavera) • Visual training	The department coordinator + the din + the library comity of the institute	
	The electronic education	Observing the sequence of accessing the courses lectures electronically via the internet	The department internal comity of the electronic education + IT unit + the institute electronic education unit	Done 100%

4. Action plan

Fields of development			Development proposals
Course content	Architectural design (1)	ARC 121	Increasing the practical skills of students by site visit
	Architectural construction and building technology (1)	ARC131	Updating course content by adding topics related to building technology
	Skiagraphy & perspectives	ARC 161	Updating course content by adding 3D geometrical shape to the final project
	Theories of Architecture (1)	ARC111	More time for workshops to match the time needed for discussions
	Statistical analysis	PHM 141	Adding new exercises for more practicing Adding more excel projects
	Surveying	CIV131	Updating course content by adding topics related to Lighting calculations and design
	Architectural Design (2)	ARC 122	increasing the practical skills of students by site visit
	Architectural construction and building technology (2)	ARC 132	Updating course content by adding topics related to building technology
	History of Architecture 1	HUM 141	Updating course content by adding topics related to roman architecture
	Engineering Modelling	PHM 132	Updating course content by adding topics related to engineering modelling

	Mechanics of structures	CVE 132	Teaching students how to collect data for their research using searching applications
	History of Architecture (2)	HUM241	Updating course content by adding topics related to introduction to Islamic architecture
	Introduction to Environmental Studies	ARC251	Update the content of some topics
	Specific chemistry	PHM241	Updating course content by adding topics related
	History of Cities Planning	HUM 242	Updating course content by adding topics related to New Egyptian capital
	Properties and resistance of materials	CVE 232	Updating course content by adding topics
	Working Designs (1)	ARC 331	Updating course content by adding topics related to executive drawings
	History of Architecture (3)	HUM 341	Updating course content by adding topics related to Banknotes and their relationship to Islamic architecture
	Geographical information systems (GIS)	ARC 372	Updating course content by adding topics related to prepare and present full database to all global and urban planning. Appling using gis program to build the geodatabase of urban area.
	Energy Efficiency in buildings	ARC 351	Adding topics related to climate change
	Technical Fixtures and Sanitary	ARC 333	Updating course content by adding topics related to Lighting calculations and design
	Working Designs (2)	ARC 332	Updating course content by adding topics related to executive drawings
	Theories of architecture (3)	ARC 311	Updating course content by adding topics related to Various modern architecture trends
	Specified Applied physics	PHM 341	Updating course content by adding topics related to Lighting and thermal calculations
	Elective Course: Inhabitants of valuable places	ARC 3831	Updating course content by adding topics related to international projects at valuable places
	Landscape	ARC 373	Updating course content by adding topics related to public garden
	Working designs (3)	ARC451	Updating course content by adding topics related to Lighting calculations and design
	Elective Course: Interior design	ARC 474	Updating course content by adding topics related to shop drawing interior
	Elective Course: The Efficiency of Energy in buildings	ARC 484	Adding topics related to climate change
Learning and Education	*Architectural construction* and building technology (1)	ARC131	Increasing the practical skills of students by site visit
	History of Architecture 1	HUM 141	Organize trips of outdoor spaces to practice educational activities (at week 4 or 5 to visit the pyramids
	Architectural design (3)	ARC221	Adding group work in the project
	History of Architecture (2)	HUM241	Organize trips of outdoor spaces to practice educational activities (at week 4 or 5 to visit Coptic church
	Concrete and steel constructions	CVE231	References will be updated
	History of Cities Planning	HUM 242	Organize trips of outdoor spaces to practice educational activities (at week 4 or 5 to visit historical area in Cairo city
	Architectural design (4)	ARC 222	Adding group work in the project
	Geographical information systems (GIS)	ARC 372	Identifying the fundamental concepts underlying computerized geographic information system (GIS) and the basic skills and capabilities of the program such a drawing, modifying and how to extract the required drawings.
	Theories of architecture (3)	ARC 311	Increasing the practical skills of students by organize a trip to connect between practical and theoretical side
	Landscape	ARC 373	Organize trip to the spring exhibition - to connect between practical and theoretical side.

References	Architectural design (1)	ARC 121	Adding more references on new architecture design methods
	Architectural construction and building technology (1)	ARC131	Adding more references
	Theories of Architecture (1)	ARC111	Adding more references
	SURVEYING	CIV131	Adding more references on Central Air Conditioners
	Architectural Design (2)	ARC 122	Adding more references on
	Architectural construction and building technology (2)	ARC 132	New architecture design methods
	History of Architecture 1	HUM 141	Adding more references
	Computer Applications –in Architectural drawing	ARC 141	Get more references west Asia architecture
	Engineering Modelling	PHM 132	Adding more references on engineering modelling
	Mechanics of structures	CVE 132	References will be updated
	Specialized Technical English Language	HUM 142	Adding more references if available
	Architectural design (3)	ARC221	Adding more references the fowllowing: 1- structure system of mega spaces. 2- Contemporoy buildings matriales.
	History of Architecture (2)	HUM241	Get more references (the Coptic architecture, the Byzantine architecture & architecture at industrial period)
	Introduction to Environmental Studies	ARC251	Adding more references if available
	Specific chemistry	PHM241	Adding more references
	History of Cities Planning	HUM 242	Reference are not enough especially for history and theory of planning (prehistoric cities & West Asia cities)
	Architectural design (4)	ARC 222	Adding more references the fowllowing: 1- structure system of mega spaces. 2- Contemporoy buildings matriales.
	Theories of Architecture (2)	ARC 211	Adding more references on sustainability
	Investigation of Soil and foundations	CVE 233	Adding more references on Soil Mechanics
	Working Designs (1)	ARC 331	Adding more references on Working designs
	History of Architecture (3)	HUM 341	Adding more references on Islamic Architecture
	Geographical information systems (GIS)	ARC 372	Adding more references on Geographic information system course and creating database.
	Energy Efficiency in buildings	ARC 351	Adding more references on Central Air Conditioners
	Technical Fixtures and Sanitary	ARC 333	Adding more references on Central Air Conditioners
	Working Designs (2)	ARC 332	Adding more references on Working designs
	Theories of architecture (3)	ARC 311	Adding more references on Sustainable Architecture
	City planning (2)	ARC 372	Sustainable Architecture
	Elective Course: Inhabitants of valuable places	ARC 3831	Adding more references on National and International projects at valuable places
	Landscape	ARC 373	Get more references about public garden
	Working designs (3)	ARC451	Adding more references on Central Air Conditioners
	Elective Course: Interior design	ARC 474	Adding more references on sustainable interior design materials
	Quantities and specifications	ARC 444	Adding more references
Struggling Students	Specialized Technical English Language	HUM 143	Extra support during the office hours
	Introduction to Environmental Studies	ARC252	Extra support during the office hours
	History of Architecture (3)	HUM 342	Modelling Islamic Buildings
Teaching Assistants	Architectural design (4)	ARC 222	Adding marks on group work of the project

5. The plan to improve the standards supporting the evaluation of the performance of the architecture program.

المعيار	التوصيات	خطة التحسين
1-رسالة وأهداف البرنامج	تعديل صياغة أهداف البرنامج لتكون محددة وقابلة للقياس وأن تتوافق مع مواصفات الخريج في المعايير الأكاديمية فيما يخص الوعي بالاستدامة.	تعديل صياغة أهداف برنامج الهندسة المعمارية (لائحة 2019) وأضافة التعديل لتوصيف البرنامج للعام الدراسى 2024/2023
2-قيادة وتنظيم البرنامج	تحديد دورية تقييم منسق البرنامج والقيادات	التنسيق مع المجلس الأكاديمى بحيث يتم عمل تقييم سنوى لمنسق البرنامج والقيادات اسوه بالتقييم السنوى لاعضاء هيئة التدريس
3-الموارد المادية والتسهيلات الداعمة	زيادة مساحة المكتبة لتتناسب مع عدد الطلاب	زيادة عدد المراجع الخاصة ببرنامج الهندسة المعمارية خاصة الداعمة لمقررات اللائحة المحدثة 2024 وذات الارتباط بالمقررات الجديدة والمحدثة بها
4-المعايير الأكاديمية للبرنامج	تحديد توقيتات دورية لتنفيذ آلية مراجعة وتحديد مواصفات الخريج زيادة وعي الطلاب بالمعايير الأكاديمية المتبناة.	تنفيذ ندوة خلال شهرأكتوبر 2023 لزيادة وعى الطلاب بالمعايير الاكاديمية المتبناه
5-تصميم البرنامج	إعداد مصفوفة توافق المخرجات التعليمية للبرنامج مع المعايير الأكاديمية المتبناة NARS 18 دراسة توافق المقررات مع مخرجات التعلم / جدارات البرنامج للبرنامج ككل .مراجعة موضوعات وطرق التدريس في توصيف بعض المقررات بحيث تتناسب مع مخرجات التعلم لتلك المقررات.	مراجعة جدارات البرنامج وتصويبها وفكها وفق ملاحظات هيئة ضمان الجودة للبرنامج
6-الطلاب	دورية قياس رضا الطلاب عن سياسات القبول والتحويل القدرة المؤسسية التدريب الريادة الطلابية.	- تفعيل استبيان قياس رضا الطلاب عن المقررات و حققت نسبة الرضا العامة لهم 78.2% و ذلك وفق الاتي : - الفرقة الاولى 82.7% - الفرقة الثانية 82.8% - الفرقة الثالثة 72.4% - الفرقة الرابعة 75.2% -كما يتم تفعيل استبيان دوري لقياس رضا الطلاب عن القدرة المؤسسية -و جاءت نتيجة رضا الطلاب عن التدريب خلال العام الدراسي 2022 / 2023 - تدريب ميداني 1 (طلاب الفرقة الاولى) 85% -تدريب ميداني 2 (طلاب الفرقة الثانية) 86%
7-أعضاء هيئة التدريس	دورية قياس الرضا لأعضاء هيئة التدريس والهيئة المعاونة	تم تفعيل الاستبيان خلال العام الدراس 2022 / 2023 و حققت نسبة الرضا ..... %
8-التعليم والتعلم	-متابعة التطبيق الفعلي لطرق التدريس والتعلم بالمقارنة بما ذكر بالتوصيفات وخصوصا للطرق غير النمطية . -التأكد من مناسبة المحتوى العلمي للجانب العملي للمستوى المهاري للمقرر إعادة توصيف مقررات التدريب الميداني بما يتفق مع المخرجات التعليمية لكل مستوى من مستويات التدريب وبما يتفق مع الاحتياجات الفعلية لتنمية المهارات العملية للطلاب والالتزام بإعداد تقارير مقررات التدريب وتحقيق الاتساق بين تقارير مقررات التدريب وتوصيفاتها واعداد ملف لكل طالب عن التدريب الميداني وزيادة تفعيل الإشراف الأكاديمي من البرنامج على التدريب الميداني	-تم تفعيل تطبيق اغلب طرق ووسائل التعليم و التعلم المحددة بالمقررات وفق المشار له بتوصيف كل مقرر -و تم مراجعة تحقق الانجاز من خلال لجنة مراجعة البرامج و المقررات حيث اشارت الى تحقيق البرنامج 91% من الجدارات المحددة بتوصيفة خلال العام الدراسي 2022 / 2023 -و تم توفير نسخة من ملف انجاز الطالب بكافة المقررات سواء النظرية او العملية او بمقررات التدريب الميداني و تم ارفاق نماذج منه في مستندات ملف المقرر المتوفر بالوحدة الفرعية للجودة
9-تقويم مخرجات التعلم	تحقيق الاتساق بين مخرجات التعلم للمقرر مع الكفاءة الموضح ارتباطها به .التأكيد على ضرورة استمرارية تقييم الورقة الامتحانية من حيث التحقق من التزام الممتحنين بقياس نواتج التعلم كما وردت بالتوصيف والتأكد من مناسبة مستوى الأسئلة الامتحانية لمستوى المقرر.	تم اعداد تقرير مراجعة الورقة الامتحانية و تم اعتمادة بمحضر مجلس القسم – جلسة شهر يوليو 2023
10-التعزيز والتطوير	مشاركة الخريجين وممثلي سوق العمل في اعداد خطة تعزيز وتطوير البرنامج .اعداد مصفوفة اتساق أنشطة وإجراءات الخطة / أهداف التطوير المطلوب تحقيقها؛ وتحديد مؤشرات لقياس الأثر لمردود عملية التعزيز والتطوير اعداد تقارير متابعة لتنفيذ خطط التعزيز والتطوير	يتوفر خطة لتعزيز و تطوير كل مقرر موضحة بتقرير المقرر كما يتوفر خطة لتعزيز و تطوير البرنامج موضحة ضمن تقرير البرنامج لعام 2022 / 2023 و الذي تم اعتمادة خلال الجلسة التكميلية لشهر يوليو بتاريخ 31 / 7 / 2023 كما يتوفر تقرير مقدم من لجنة تعزيز و تطوير برنامج الهندسة المعمارية تم خلاله تقييم حجم الانجاز في خطة الاطار العام لتحسين جودة العملية التعليمية تم اعتمادة ضمن محتوى تقرير البرنامج
11-مؤشرات نجاح البرنامج	دراسة أسباب تذبذب معدلات التخرج من البرنامج خلال الخمس سنوات الماضية استكمال البيانات والمعلومات عن المسجلين في الدراسات العليا من خريجي البرنامج مع التحديث المستمر لقواعد بيانات الخريجين.	تتجاوز نسبة التخرج سنويا" بالبرنامج 85% خلال الخمس اعوام الاخيرة ، حيث سجلت نسبة النجاح لهم هذا العام 87% تم تحديث قاعدة الخريجين و اضافة اليها بيانات الخريجين الجدد من خلال ادارة الخريجين بالمعهد كما يتوفر تواصل مع الخريجين من خلال جروب الواتساب الذي يشرف علية رئيس البرنامج

6. the gap study of the courses contacts hours

According to the regulations of the academic curriculum 2013

6.1 Total teaching hours and subjects' distribution over the subject areas

Years	Course teaching hours	Humanities & Social Sciences	Math & Basic Sciences	Basic Eng.	Computer Appl & ICT*	Applied Eng & Design	Projects* & Practice	Discretionary (culture of engineering)	Project management
Total prep year	63	12	28	0	4	8	0	7	
Total 1st year	59	5	4	20	5	12	6	3	
Total 2nd year	61	9	0	24	5	12	6	0	5
Total 3rd year	63	2	0	20	5	22	6	8	
Total 4th year	59	0	2	8	8	16	20	8	2
Total of Five Years	304	28	36	72	27	70	38	26	7
% of Five Years	100%	9.2%	11.84%	23.7%	8.9%	23%	12.5%	8.6%	2.3%
				32.6%					
(%) Requirements of the Eng. Sector Committee	**100%**	8-10%	18-22%	25-30%		25-30%	4-6%	4-6%	2-4 %
(%) Requirements of Engineering Sector Committee of the Supreme Council of Universities, 2016	**100%**	20-26%	20-23%	20-22%		9-11%	8-10%	20-26%	

Table (3) teaching hours distribution over the subject areas

Subject Area	subjects' distribution							Percentage	(%) Requirements Of the Eng. Sector Committee
Humanitarian and social Courses	9.2%							9.2%	8-10%
Project management		2.3%						2.3%	2-4%
Mathematics and Basic Science Courses			11.84%					11.84	18-22%
Culture of Engineering							8.6%	8.6%	4-6%
Basic Engineering Courses				23.7%		8.9%		32.6%	25-30%
Applied Engineering Courses Including					23%			23%	25-30%
Projects & Training						12.5%		12.5%	4-6%
Percentage%	9.2%	11.84 2.3%		23.7%	23%	8.9%	12.5%	8.6%	**(100%)** Course teaching hours (304)
		14.14							
NARS Engineering Requirements	9-12%	20-26%		20-23%	20-22%	9-11%	8-10%	6-8%	

Table (4) subjects' distribution over the subject areas

From the above table it is shown that the program Percentage hour distribution and the requirements verify the engineering sector of supreme council of higher education requirements, and fulfils The Egyptian NARS Engineering Requirements that except for the following:

- **Culture of Engineering** Courses **(8.6%)** are exceed Requirement 6% by approximately 2.6% contact (7.9) hours.
- **Projects & Training** Courses **(12.5%)** are exceed Requirement 6% by approximately 6.5% contact (19.76) hours.
- **Basic Engineering** Courses **(32.6%%)** are exceed Requirement 30% by approximately 2.6% contact (7.9) hours.
- **Applied Engineering** Courses **(23%)** Including Courses to reaching need 25% approximately 2% contact (**6**.08) hours to be added
- **the Mathematics and Basic Science** Courses (11.84%) Including Courses to reaching need 18% approximately 6.2% contact (**18**.7) hours to be added

So the action plan to improve requirement of the courses, is to be as follows:

Applied Engineering Courses Including Courses need aproximitly 6 contact hours to be added																				
no.	Level	Code	Course Name	Teaching Hours					Marking				Subject Area							
				Lectures	tutorial	Practical	Total hours	Wr. Exam Dur.	Year work	Practical Exam	Written Exam	Total	Hum. & Soc. Sc.	Math. & B. Sc.	B. Eng. Sc.	Applied Engineering & design	Comp. App. & ICT	Proj. & Practice	Discretionary
1.	1	ARC101	Architectural design (1)	1	5	0	6 +1	5	90	0	60	150				1			
2.		ARC102	Architectural design (2)	1	5	0	6 +1	5	90	0	60	150				1			
3	2	ARC201	Architectural design (3)	1	5	0	6 +1	5	90	0	60	150				1			
4		ARC202	Architectural design (4)	1	5	0	6 +1	5	90	0	60	150				1			
5	3	ARC301	Architectural design (5)	1	5	0	6 +1	5	90	0	60	150				1			
6		ARC302	Architectural design (6)	1	5	0	6 +1	5	90	0	60	150				1			
Total							36 +6									6			

These courses are to be specified as teaching courses and applied in the academic year 2021/2022

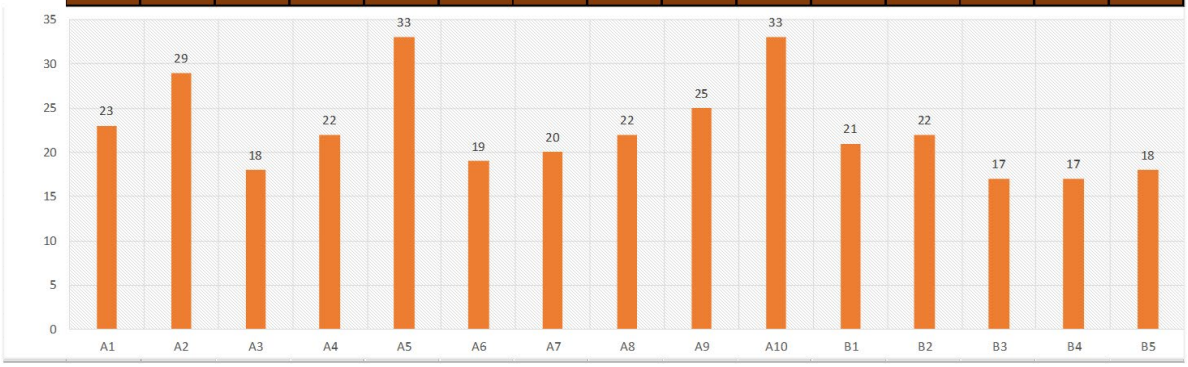
The Mathematics and Basic Science Courses																			
no.	Level	Code	Course Name	Teaching Hours					Marking				Subject Area						
				Lectures	tutorial	Practical	Total hours	Wr. Exam Dur.	Year work	Practical Exam	Written Exam	Total	Hum. & Soc. Sc.	Math. & B. Sc.	B. Eng. Sc.	App. Eng. & Des.	Comp. App. & ICT	Proj. & Practice	Discretionary
1.	3	PHM323	Physics 3	2	4	0	+6	2	30	30	40	100	0	6	0	0	0	0	0
2	4	PHM415	Mathematic and statistics (SPSS)	2	4	0	+6	2	30	30	40	100	0	6	0	0	0	0	0
3	1	CHE102	Chemistry3	2	2	2	+6	2	60	0	90	150	0	6	1	0	0	0	0
Total					6	2	+18							18					

These hours are to be applied in the academic year 2021/2022

7. The study of program structure with the graduate's specifications

According to the regulations of the academic curriculum 2019

The Competence														
General competence										specific competence				
A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5
23	29	18	22	33	19	20	22	25	33	21	22	17	17	18



According to the regulations of the academic curriculum 2019

From the previous graph it is observed that:

- **The program competencies successfully fulfil most of the NARS 2018 standards.**
- **The program focuses mainly on the research methods to be updated with architecture, construction and urban planning information and new technologies.**
- **It applies appropriate experiments and analysis to reach the best conclusions.**
- **It identifies the basics, fundamentals and theories needed to solve any engineering problems in addition to flexibility in using creative and innovative thinking to solve new situations.**
- **It also supports the communication skills used to work individually or in a team with a range of audience to achieve its aims successfully.**
- **It considers most of the global needs (economic, environmental, regulations…etc.) and helps in meeting the building users' requirements.**
- **By implementing all the above the program produces an integrated product that makes it a successful one that does not have any gaps and does not need any gap analysis.**

Balance the program structure with the graduate's specifications in terms of:

- **Human and social sciences courses (8%)**
  consistent with the scope of the sector's frame of reference (08 – 10) %
- **Mathematics and basic sciences courses (18%)**
  consistent with the scope of the sector's frame of reference (18 – 22) %
- **Basic engineering science courses (29.6%)**
  consistent with the scope of the sector's frame of reference (25 – 30) %
- **Applied engineering and design courses (29.6%)**
  consistent with the scope of the sector's frame of reference (25 – 30) %
- **Project management decisions (3.6%)**
  consistent with the scope of the sector's frame of reference (02 – 04) %
- **Projects and field training courses (6%)**
  consistent with the scope of the sector's frame of reference (04 – 06) %
- **Distinctive decisions of the institution (5.2%)**
  consistent with the scope of the sector's frame of reference (06 – 08) %

Architectural Engineering

Program Report

(2022-2023)

Program title	Architectural Engineering, ARC	
Title	**Name**	**Signature**
Program Co-coordinator	Prof. Dr. Manal Yehia Tawfic	
Head of program	Prof. Dr. Manal Yehia Tawfic	
Date of Approval	**2022-2023**	**27-9-2023**