Effat University

Effat College of Architecture & Design
Department of Architecture
Jeddah, Kingdom of Saudi Arabia

Architecture Program Report for 2019 Visit Three for NAAB Substantial Equivalency

Bachelor of Architecture [171 Credit Hours]

Year of Visit Three: 2019

Pending acceptance of this report,

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PART ONE (I): SECTION 1 – IDENTITY & SELF-ASSESSMENT

I.1.1 History, Mission and Founding Principles

I.1.1.1 History, Mission and Founding Principles of Effat University

Effat University (EU) is a leading private non-profit institution of higher education for women in Saudi Arabia, operating under the umbrella of King Faisal's Charitable Foundation. Effat University is the living legacy of its founder, Queen Effat Al- Thunayyan Al-Saud, wife of the late King Faisal Bin Abdal-Aziz (May God rest their souls) who helped improve women education in Saudi Arabia starting from 1955 by establishing the first private school for girls- Dar Al-Hanan School- in Jeddah city. Queen Effat's vision for education is exemplified in the quest for knowledge, truth, and enlightenment. In 1999, Queen Effat also helped to launch the first private non-profit college in Jeddah under the name of Effat College, just few months before she passed away. In order to become a center of academic excellence in Saudi Arabia, as Queen Effat intended it to be, Effat College launched different academic programs taught in English. The use of English as a medium of teaching and learning was important to expand the horizons of women, raise their educational level and prepare them for employability to serve their communities; unlike the case with other governmental universities and colleges that mainly run their programs in Arabic (or are bi-lingual). While still being deeply rooted into Islamic values and the cultural heritage of the kingdom, the College is modeled after the "seven sisters" in the United States and adopted a liberal arts philosophy to prepare future female leaders- Effat Ambassadors- who are capable of making an impact on their own societies. The first two programs offered by the College were Computer Science and Early Childhood Education. In the following year, 2000, another three programs were offered: Information Systems, Psychology, and English Language and Translation. The College graduated its first batch of students (7 students) in Spring 2003. In the academic year 2005-2006, Effat College inaugurated the two majors: Architecture program and Electrical and Computer Engineering program, neither of which had ever been made available to women before in universities in the Kingdom.

Successive efforts and developments were made to support the growth of the College in every possible aspect in the following years. Many factors played a major role in converting Effat College into a university in 2009. These factors included: a) the relentless efforts and the ongoing vision of its founders (i.e. the sons, daughters, grandsons and granddaughters of Queen Effat) and supporting faculty and administrators; b) the inauguration of the three independent Colleges (i.e.: The Effat College of Science and Humanities, the Effat College of Engineering, and the Effat College of Business and supporting Deanships (i.e. Deanship of Academic Development and Supportive Studies, Deanship for Student Affairs, Deanship of Admission and Registration, Deanship of Quality Assurance, Deanship of Graduate Studies and Research), c) the establishment of the Research and Consultancy Institute and the Extension Programs in addition to the success achieved by the institution on the academic, educational and social levels. All these developments paved the way for Effat College to become a University as per the Royal Decree No. 963/ MB issued by the Custodian of the Two Holy Mosques, King Abdullah Bin Abdul- Aziz Al-Saud, on the 30th of January, 2009, associated to the Higher Education Council Decision No. 11, agreement No. 5. According to this decree, Effat College acquired university status as a private institution of higher education for women. In 2009-2010, Effat University (EU) was established with three colleges that housed 12 departments, offering 12 programs, some of which were the first to be offered to women. The Architecture Program (ARCH) was one of these and was housed within the College of Engineering in 2005.

In Fall 2014, Effat University expanded its three colleges to become four colleges by establishing the Effat College of Architecture and Design (ECoAD), which has housed the Architecture Program. In addition, Effat University opened new bachelor and master degrees to cater for the market growing needs as well as offer new learning opportunities for women in Saudi Arabia. Thus, Effat University now offers 13 undergraduate and 4 graduate programs under four colleges and 13 departments. These are as follows:

- Effat College of Humanities, 2 undergraduate programs: English and Translation Program, Psychology Program, and a Master of Translation Studies.
- Effat College of Engineering: 3 undergraduate programs: Electrical and Computer Engineering Program, Computer Science Program, Information Systems Program, and a Master in Energy Engineering.
- Effat College of Business, 5 undergraduate programs: Finance Program, Marketing Program, Human Resources Management Program, Operations and Information Management Program and Entrepreneurship Program, and a Master of Islamic Financial Management.
- Effat College of Architecture and Design, 3 undergraduate programs: Architecture Program, Visual and Digital Program, Design Program, and a Master of Urban Design.

In 2016-2017, Effat University developed its fourth strategic plan covering the period from 2017 to 2022, taking into consideration the Saudi Vision 2030 and the National Transformation Plan 2020. The following are the updated vision, mission and goals of Effat University for the fourth strategic plan:

Vision

Effat University strives to be recognized as one of the world's leading institutions in scientific discovery and innovation presenting solutions to societal challenges, and to serve as agent of change that advances inspired leaders and scholars in fulfilling Queen Effat Al-Thunayan Al-Saud's vision (God rest her soul).

Mission

Effat University prepares aspirational and effective leaders of international quality who contribute to national and global progress by interweaving Effat University Core Values into an innovative education which creates a culture of broad inquiry, intellectual engagement, and valuable societal impact.

Goals

1. Enhance Effat University/s national and international recognition by deepening its presence, impact and contribution to the social, cultural and economic vitality of the Saudi 2030 vision.
2. Stimulate a progressive and dynamic work environment by ensuring effective leadership principles and transparent governance;
3. Enlarge the scope of national and international accreditations and aspire to achieve the goals of the Saudi transformational plan 2020 in getting Effat University ranked as one of the 5 Saudi Universities among the top 200 institutions in the world.
4. Provide an innovative, distinctive, and high quality education, which inspires the students' broad inquiry, intellectual engagement, and service and makes Effat University widely known for its excellence in all its distinctive academic activities;
5. To be at the forefront in attracting and retaining a diverse body of students and continue graduating agents of change through providing a transformative learning experience designed to help graduate entrepreneurs create future opportunities and be ambassadors of Queen Effat Legacy.

6. Cultivate broad inquiry and dynamic learning environment that foster creativity among students, faculty, staff and external community through state of-the-art learning and information resources and services.
7. To provide a sustainable working and learning environment through optimized operation management of the University's information technology and facilities while ensuring safe and attractive campus facilities, and excellent service delivery, that meets the university evolving needs and future growth
8. Achieve and sustain Financial Stability and strength to enhance the University's competitive position.
9. Maintain and enhance efforts to recruit, nurture, and retain a diverse faculty and staff in order to make the Effat community a place of choice.
10. Foster a vibrant, successful and interactive research community that generates ideas and discoveries leading to intellectual property, enterprises, socio-economic prosperity and financial wealth, thereby realizing the objectives and aspirations of the Saudi 2030 vision.
11. Develop and support a culture of service through national and international long term productive partnerships and collaborations that support the community and strengthen the university.

The national accrediting body, NCAAA, announced in 2017-2018 the newly update quality standards (version 2018) and gave the year 2018-2019 as the transitional year in which all institutions are required to launch the use of the new standards. Effat University has worked throughout the year 2018-2019 on shifting to the new system and that included revising the goals of the university to be aligned with the update NCAAA standards and updating any quality related forms based on the updated forms of the NCAAA.

All the programs offered by the university under its 4 colleges respond to national and international demands for development and aim to fulfill the vision, mission and goals of Effat University of the University's fourth strategic plan (2017-2022) which are deeply grounded in the vision of the founder of the institution.

Effat University Founding Principles

Believing that a successful holistic education in the 21st Century must strike the balance between tradition and modernity, Effat University, which springs from the vision of its founder, Queen Effat, aims to educate future female leaders at an international level, by helping them acquire the skills for life-long learning for personal, intellectual and professional development, while upholding ethical values and respecting social traditions with a goal to make a valuable societal contribution and impact. To achieve this, Effat University offers its students a unique educational experience that intertwines modern academic development along with ethical, personal and social development to help its learners grow as well-rounded individuals and future leaders. This experience is undertaken in a family environment – Effat Family - that is uniquely created by adopting **Effat University's four Core Values**, which are based on the divine commandment **IQRA**, "read" and which are in turn achieved through the eight pillars of Effat Ethical Code of Conduct (**Tarbawyyat Effat**). These four core values and eight pillars are: ***Ibhath*** (undertaking life-long research) achieved through '*Ādab*' (Knowledge, manners and outreach) and *'Amanah'* (Ethics and integrity), ***Qiyam*** (adopting ethical, social and educational values) achieved through *'Taqwã'* (Piety) and *'Yusr'* (Modesty and ease), ***Riyada*** (assuming responsible and creative leadership) achieved through *'Ricaya'* (Nurturing) and *'Tawğyh'* (Guidance), and ***At-tawasul*** (Effective communication and reaching out to others) achieved through *'Bunyan Marsūs'* (Cooperation and collaboration) and *'Wasaţya'* (Tolerance and moderation). Through the implementation of ***IQRA-Based Teaching Model***, students and graduates of Effat University are expected to acquire and demonstrate a set of four characteristics directly linked to Effat four IQRA values and the eight pillars of Effat Ethical Code of Conduct. These characteristics provide the overarching behaviors that Effat University aspires to have in its students and graduates -***Effat Ambassadors***- in order to be able to make them positive agents of change in their local and global community.

To graduate Effat Ambassadors, all Effat academic programs, including the Architecture Program, ensure that all their courses are guided by these values and are training towards adopting these overarching positive behaviors. In addition, a number of well-designed programs and supporting activities are offered to Effat students that can help them attain these characteristics.

Thus, the educational experience of Effat University starts by immersing students in a broad-based foundation of knowledge through the General Education Program that is followed by a deeper exploration of a specific major of the learners' choice. This is reinforced by a co-curricular program, Effat Ambassador Program, and extra-curricular activities that help in shaping Effat learners as future leaders. All Effat students are also required to undertake an internship related to their specific field of study and produce a capstone project as part of their graduation requirements.

To ensure that the graduates of Effat University have had a successful learning experience and have developed as well-rounded individuals that uphold the Effat Ambassadors' characteristics, all programs, including the Architecture program, regularly assess the student performance and level of achievement of the learning outcomes that are based on these principles using a systematic overarching assessment strategy that is presented in the rest of this report.

I.1.1.2 History, Mission and Founding Principles of the Architecture Program

As mentioned earlier, the Architecture Program at Effat College was launched in the academic year 2005-2006 after receiving the approval of the Ministry of Education (MoE) to start the Architecture Program. MOE had no comment against the Architecture curriculum. The first enrolment had 10 students, 9 of them were Saudi. When Effat College acquired the University status in the academic year 2008-2009, with the established three colleges, the Architecture Program was under the College of Engineering.

The Architecture Program started in 2005 as a four-year program with 148 credit hours. Architecture Design Studio was a core subject of 10 hours per week, extending over seven levels of Architecture Design Studio courses in addition to the Capstone design studio to be covered in the 8th semester. The program provided strong applied and interdisciplinary education to produce creative, highly disciplined, and critical thinkers capable of leading the contemporary architectural environments of their communities with strong understanding of both local and international market needs. The faculty teaching the program were selected as a diversified group of well-qualified academics and professionals whose experience well fits the needs of the program (please see the faculty résumés in Appendix 1).

During the implementation of the program in the first five years, many areas in the program were further evaluated for improvement. The Architecture Program faculty and academic advisors presented many notes in the Course Reports and Program Advisory Committee (PAC) Meetings that were discussed and approved during the monthly Departmental Council meetings and added in the Annual Program Reports in preparation for their consideration in the following cycle of evaluation of the program, which is undertaken every five years. During the first five-year cycle of evaluation, the Architecture Department had the chance to present a more enhanced and developed educational plan to improve the curriculum of the architecture program. The curriculum of the new five years' program with 171 credits, which was reviewed by King Fahd University for Petroleum and Minerals (KFUPM) as the national reviewer and the University of Miami, USA, as the international reviewer, was then approved by the Ministry of Education (MoE) in 2009. Again, the MoE approved the updated curriculum with no comments.

The design studio courses remained the core subject in the updated program, but the program was modified to include an eighth level Architecture Design Studio course and other additional courses necessary to enhance the students' knowledge. The updated Architecture Program adopts both traditional and technological educational methods. However, the greater part of the program depends on developing the technological, architectural skills of the students by using commonly used architecture software in computer labs to support students' development.

In Fall 2014, Effat University established the new College of Architecture and Design. The Effat College of Architecture and Design (ECoAD) includes now four academic programs: Architecture (ARCH), Visual and Digital Production (VDP), Design (DESN), and Master of Urban Design (MSUD).

Effat University and all its programs, including Architecture Program, were of the first programs to apply for national accreditation when it was first introduced in 2009 in Saudi Arabia. In 2012, after the national accrediting body of higher education, the National Commission of Academic Accreditation and Assessment (NCAAA) was formalized,

Effat University was fully accredited for 7 years from 2010 to 2017. The Architecture Program, which was also fully accredited, became the first accredited architecture program in Saudi Arabia for the period of seven years (from 2010 to 2017). In the academic year 2016-2017, Effat University, as well as the Architecture Program, went through the rigorous process of re-accreditation from the national accrediting body, which is now known as the National Center for Academic Accreditation and Assessment, belonging to the Education Evaluation Commission (EEC-NCAAA), and successfully achieved full re-accreditation for both the institution and the program for another seven years (from 2017 to 2024).

The Effat University Architecture Program is now a major player in the Saudi professional market. Graduates from EU Architecture Program are sought after to be employed in the local and regional architectural firms. Other graduates from the program are seeking graduate studies. The Architecture Program graduated 581 female architects from the academic year 2008-2009 until the academic year 2018-2019. The chart below presents the number of ARCH graduates from the academic year 2008- 2009 until the academic year 2018-2019

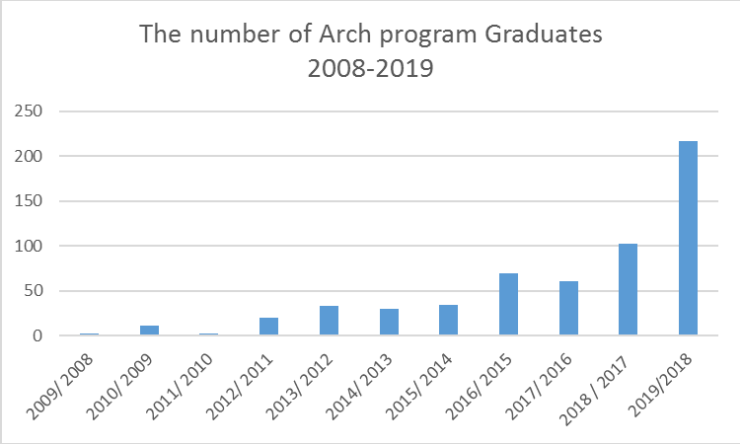


Figure (1) The Number of Architecture Program Graduates (2009-2019)

Table (1) Architecture Program Alumnae Program Graduates (2009-2018)

ARCH Alumnae Status 2009-Spring 2018

ARCH Alumnae Status	*Number*	*Percentage*
Working	213	62%
Studying	22	6%
Seeking Job	64	19%
Not Reachable	44	13%
Total	343	100%
Not Working By Choice	23	
Overall Total	366	

Analysis:

- ARCH has 366 Graduates in which 213 are Working, 6/213 have senior positions = 3%
- ARCH has 366 Graduates in which 213 are Working, 25/213 have their own business = 12%

Table (2) Architecture Program Employment within 6 months of Graduation

ARCH Employment Within 6 Months of Graduation for Spring 2018

Employment Within 6 Months of Graduation (Spring 2018)	*No. Of Alumnae working*
1 or 2 months	11
3 months	5
4 months	2
5 months	3
6months	2
After 6 months	4
Total of Working	27
Overall ARCH Alumnae	57

Analysis:
- Spring 2018 has 57 ARCH Alumnae 27 of these alumnae started working in the first 6 months this is equal to 47%

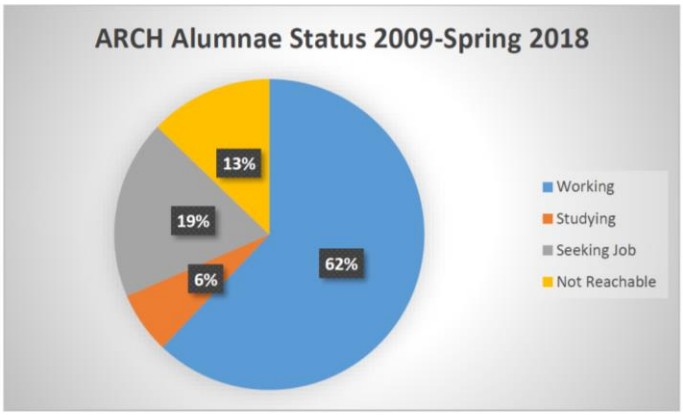


Figure (2) Architecture Program Alumnae (2009-2018)

In spring 2018, it was assessed that almost 62% of ARCH graduates are working, 6% are undertaking their graduate studies, 19% are seeking jobs and 13% are not reachable because these are international students and some of them return to their countries and thus become difficult to reach.

The Architecture Department, which administers the Architecture Program, is therefore committed to ensure that the curriculum of the Architecture Program is continuously updated and supported with the various resources to cater for the most up-to-date architecture education. This is important to make it truly relevant to the needs of the country and to graduate highly qualified female architects who are citizens of the world.

Architecture Department 2017-2022 Mission and Vision

In 2016-2017, the whole university launched its preparations for setting its fourth strategic plan (2017- 2022). In preparation for the new strategic plan, the Architecture Department developed in Fall 2017 its updated mission, vision, and goals for the department and for each of the programs it administers. The mission and vision statements were fully aligned with those of the University, College and Department. Similar to other programs in the College, the ARCH Department undertook the SWOT analysis and based on its assessment of its current context, strengths, weaknesses, opportunities and threats, and after considering its aspirations for the years to come, and taking into consideration the views of their stakeholders, the members of the ARCH Department have developed the updated vision, mission, goals, and objectives of the ARCH program. The ARCH program continues to uphold the founding principles of its founder by aiming to graduate professional leaders in the area of architecture, who are qualified to contribute to the development of their country and the world. The following are the vision and mission of the Architecture program of the strategic plan (2017-2022) that clarify these aspirations and aims:

Vision

Architectural Department aspires to prepare professional architects and urban designers of tomorrow, who can contribute to national and international progress of architecture and related fields, share knowledge nationally and internationally through research and community service, develop the profession through practice and contribute to the vision of their country with respect to environmental, social and economic sustainability.

Mission

Architectural Department prepares professional leadership and future qualified architects and urban designers with excellent architectural education who can enrich the profession through research and practice, can contribute to national and international progress of architecture and share in building the future of their country by interweaving Core Values into an innovative and comprehensive architecture education

Having developed the vision and mission, the ARCH program afterwards aligned these to the overall university and college vision and mission. The table below shows the alignment between the Vision & Mission of the University, College, and ARCH program:

Table (3) Vision & Mission of Effat University, ECoAD and ARCH Department Program

Effat University Vision	**College of Architecture & Design Vision**	**Architecture Department Vision**
Effat University strives to be recognized as one of the world's leading institutions in scientific discovery and innovation presenting solutions to societal challenges, and to serve as agent of change that advances inspired leaders and scholars in fulfilling Queen Effat Al-Thunayan Al-Saud's vision (God rest her soul).	Effat College of Architecture and Design aspires to be a hub for creative and innovative scholars of faculty and students who contribute through artistic, innovative, and sustainable solutions to the local and global community.	Architectural Department aspires to prepare professional architects and urban designers of tomorrow, who can contribute to national and international progress of architecture and related fields, share knowledge nationally and internationally through research and community service, develop the profession through practice and contribute to the vision of their country with respect to environmental, social and economic sustainability.
Effat University Mission	**College of Architecture & Design Mission**	**Architecture Department Mission**
Effat University prepares aspirational and effective leaders of international quality who contribute to national and global progress by interweaving Effat University Core Values into an innovative education which creates a culture of broad inquiry, intellectual engagement, and valuable societal impact.	Effat College of Architecture and Design graduates creative and effective leaders who can compete nationally and internationally by integrating core values into the education of architecture, design, and visual media and combining academic study and practicum experience.	Architecture Department prepares professional leadership and future qualified architects and urban designers with excellent architectural education who can enrich the profession through research and practice, can contribute to national and international progress of architecture and share in building the future of their country by interweaving Core Values into an innovative and comprehensive architecture education

The goals of Architecture Program that stem from the above mission also support both the goals of Effat College of Architecture and Design and those of Effat University in achieving the vision and mission of its founder. The following table shows the synergy between these goals.

ARCH Program Goals and Objectives (2017-2022)

During spring 2017, the Department Chair and faculty members developed the 2017-2022 ARCH Department goals. Additionally, a new set of goals were designed for the ARCH Program and used for measuring its achievement, by ensuring that the goals were measurable and achievable (realistic). As illustrated in the table below, the Architecture Program goals are closely aligned with the new NCAAA standards as well as with the University, College and Department goals

Table (4) Converging Goals: Effat University, ECoAD and ARCH Department Program Founding Principles

University Goals	College Goals	ARCH Program Goals
To be recognized as the best women's university in the Kingdom.	To be recognized as the leading college in the education of creative and innovative architects, producers, and designers.	Achieve and maintain a highly recognized architecture program in the kingdom and worldwide.
Develop a positive organizational climate and maintain productive work environment.	Provide a professional administrative environment that is conducive to	Create an encouraging, well organized, and productive work environment to maintain
	Transparency, innovation, and ethics.	A high performance rate of both faculty and students.
Gain and maintain national and international accreditation, and ensure that the University is among the top national universities.	Meet the international and national standards of quality for all ECoAD programs in teaching, research, and community service.	Gain and maintain national and international accreditation to gain place among the top universities in the Kingdom.
Sustain academic excellence and implement the academic programs' expansion projects.	Sustain academic excellence through creative, innovative, and active learning methodologies.	Maintain and achieve high quality teaching environment, ensure the provision of all academic and services resources, and prepare to offer a postgraduate studies.
Reach the University's students capacity by 2017 and continue to cultivate excellence in student development.	Attract and retain highly qualified innovative and creative students, and reach 1349 of ECoAD students by 2017.	Increase the recruitment rate of new students and maintain the retention rate of continuing students.
Continue providing students, faculty and administrative community with state-of-the-art campus resources and facilities.	Provide the required learning resources relevant to the creative programs of the ECoAD for optimal teaching and learning.	Managing and updating the necessary learning resources to faculty and students.

Complete the construction of the required buildings for the new campus masterplan and optimize the use of the University's facilities.	Provide the state of the art facility and equipment for innovative and unique program delivery.	Sustain the safety, adequacy, and functionality of the workshops and labs, and construct a new building to be attached to the existing one to cater to the increasing number of the students.
Further, increase the financial strength and sustainability of the University and continue the fundraising efforts for the construction of the new buildings, scholarships, and research chairs.	Sustain financial health of the college through its offerings and recruitment.	Work on different means of fundraising to support the equipment's purchases, faculty research, exhibition, publications, and the construction of the new addition to the architecture department.
Substantially increase the professional development of Effat administrative staff.	Attract and retain highly qualified and motivated teaching and administrative staff.	Increase the professional development of architecture administrative staff and faculty with administrative duties.
Substantially increase research and scholarly output and activities.	Sustain, strengthen, and develop positive and interactive relationships to foster scholarship and research.	Encourage faculty and students to be involved in scholarly research activities.
Further, develop and strengthen the University's relations and interactions with the community.	Develop sustainable partnerships with national and international organizations to make relevant contributions to the community.	Sustain, strengthen, and develop positive and interactive relationships with the community.

The Architecture Program at Effat University aims to provide a holistic learning experience for tomorrow's pioneering female architects, empowering them with knowledge, design skills, and experience of the profession towards meaningful contribution to the community and the built- environment. It aims to educate the future generations of innovative and creative leaders in the field of architecture with aesthetic judgment, professional knowledge, collaborative skills, and high ethical values in an environment conducive to learning, research, and commitment to serving the community.

The learning experience of the architecture students starts with providing the learners with a solid general education that is comprised of 42 credit hours of liberal-arts education that are categorized under four main categories that correspond to IQRA values. These are courses in **Literacies** (i.e. Scientific Literacy, Cultural Literacy, and Global Awareness = 9 Credits), **Skills Development** (i.e. Quantitative Reasoning, Information, Media and Technology, and Linguistic Communication – Arabic Language, English Language, and Foreign Languages = 20 Credits), **Cultivating Positive Disposition** (i.e. Islamic Thought and Ethics, Physical and Environmental Wellbeing, and Civic Engagement = 10 credits), **and Interdisciplinary Research** (3 Credits). While some courses are mandatory (i.e., Math and Physics specific for the ECoAD), students also have the privilege of choosing others from the 94 courses offered in the General Education Program (GEP).

Having successfully acquired these essential general skills and knowledge base, the students are introduced to their architecture courses whose learning outcomes are to help students be able to;

- Define the terminologies common to the field of architecture.
- Recall the importance of architecture as an area of human activities, both in the past and contemporary times.
- Describe the various theoretical, historical, social, cultural, environmental and technological aspects of architecture.
- Design architecture projects using appropriate computer application tools.
- Integrate fundamental principles and techniques of problem solving in architecture design.
- Analyze the various aspects of interactions between humans and their environment both from architecture and urban design point of view to produce sustainable, healthy societies.
- Differentiate between different types of building materials, building technologies, and structural systems
- Demonstrate personal and professional responsibility.
- Show a deep sense of leadership and responsibility to the culture and a sustainable community.
- Adhere to professional ethics practices common in designing, presenting, and managing a project.
- Communicate effectively in oral and written forms, including the creation of appropriate technical documentation.
- Calculate relevant information, statistics, and mathematics.
- Demonstrate physical mental coordination in producing architecture sketches.
- The major architecture requirements consist of 3 credits of Mathematics (MATH 127: Calculus for Engineers), 114 credit hours of core requirements, and 12 credits of architecture elective courses. Core requirements include courses that provide students with the essential theoretical background- like ARCH 231 'History of Architecture' and ARCH 341 'Theory of Architecture'. Some core courses are focusing on environmental issues –like ARCH 240 'Architecture, Culture and Environment' and ARCH 343 'Introduction to Landscape Architecture'. The greater part of the core courses is practical. These include all Architecture Design Studios and courses like Structure in Architecture (1 & 2), Building Construction, and Energy and Design. All students must finish an internship experience, which provides them with the chance to have an architectural professional practice during summer and produce an extensive report to be presented in the course 'Professional Practice' in the following Fall semester, and a 'Capstone Project', which culminates their architectural learning experience by targeting a specific architectural problem and providing a solution for it in the form of a complete design and a report about it. The students are required to present and defend their designs in front of a jury panel. The students can also choose from a variety of elective courses, four 3-credit hour courses, to expand their design related knowledge and practice. Such courses include Photography, Historic Building Restoration, Urban Conversation, etc.
- The ARCH Program thus includes General Education Program (GEP) courses, Mathematic Course, and ARCH courses. Core and elective curriculum courses are taught by the ARCH faculty using the ARCH facilities. GEP courses are taught by General Education Department faculty supervised by the Deanship of Academic Development and Supportive Studies (DADSS). Math 127 [Calculus for Engineers) is taught by faculty from the College of Engineering. Each Architecture student has an assigned seat in a specific studio. Classrooms are shared among different colleges and departments, and their allocation is planned in collaboration with the Deanship of Admission and Registration (DAR).

The students of the Architecture Program must also complete a co-curricular program, the Effat Ambassador Program (EAP), which is a student development program that consists of 99 hours of trainings and workshops geared towards achieving the 4 Effat Graduate Characteristics that are based on IQRA Values throughout their degree program to gain the Effat Ambassador Passport. They also need to complete a portfolio that gives evidence that they have accomplished the required trainings.

Also, the students are encouraged to share in and contribute to other extra-curricular activities offered by Student Life and acquire value points in return. These students' activities which help them positively immerse in the social life of their college and university to build their characters, include attending public lectures and conferences, participate in

trips, offering voluntary work, becoming members in student clubs, excelling in sports, winning academic awards and honors, and supporting Students Bodies (i.e. Student Government and Student Shura), and supporting the Enhancement Centers which help all university students.

The response of the local community to the Effat Architecture Program is encouraging, and every semester there is more recognition of the efforts that have been given to make this program successful. The agreements with several national and international architectural firms, like ARAMCO, CPC, Saudi Diar, Saudi Oger, Zuhair Fayz, provide internships and training opportunities for undergraduate students, job vacancies for graduating students, and participation in curriculum development, fundraising for resources, and scholarships this year agreements have been issued, one with the Saudi Arabian society for culture and Art for initiatives on heritage conservation; and another with the CCT International, Inc for BIM and construction management training in Cairo and Athens.

The Relationship between the Architecture Program and Effat University

The relation between the program and the university is reciprocal where the program is benefiting from the university and vice versa. In the following section, the benefit of the university to the program is outlined:

Despite the independence of the Effat College of the Architecture and Design and the Architecture Program in running its internal academic and administrative affairs and having their own facilities, the Architecture Program utilizes many of the central facilities of the university and depend on the major supporting Deanships for many of its administrative tasks.

In terms of the shared facilities with the University, and due to the small size of the institution, the Architecture Program shares classrooms and lecture halls with other colleges and departments for theoretical courses in core or general education for the optimization of space use. The Architecture Program also shares the Central library (Effat Library and Cultural Museum), restaurant, sports facilities, Effat clinic, Child Development Center, Testing Center, and students and faculty housing facilities.

In terms of the support of other major Deanships and supporting units, the Architecture Department has been working closely with the **Deanship of Quality Assurance** (**DQA**) towards continuously improving the overall quality of the ARCH program with the support of the **President and Provost Offices**. The Deanship of Quality Assurance also helps in developing the faculty in terms of report writing, undertaking performance analyses using KPIs, as well as support all departments in running institutional surveys and reporting their results per college and department to help them identify their points of strength and weakness to develop and implement their improvement plans. The Deanship of Quality Assurance also runs a number of internal and external workshops and group and individual sessions every semester for the development of the faculty and staff regarding issues related to quality assurance, quality management, implementing improvement action plans, obtaining national and international accreditation and many other relevant trainings upon request and as needed. The DQA also provides support in reviewing all quality related reports including self-study reports.

The Architecture Program led by the Department Chair and supported by the Dean of the College work very closely with the **Office of the Provost** on all academic matters throughout the academic year including student advising, program and courses implementation, evaluation, development, and review. The Provost Office also supports faculty development through the Center for Excellence in Teaching and Learning as well as in supporting the departments and colleges in handling faculty appointments and promotion processes in coordination with the central Management of Human Resources and Management of Finance.

The **Deanship of Admission and Registration (DAR)** supports the Architecture Program in handling the administrative processes for admitting and registering students as well as in keeping central records of students' files and grades both digital, through the Banner System adopted by the University, or hard, as kept on general safe and secure area in a cardex, separate from those belonging to the colleges. They also support in auditing graduates and producing final transcripts and degrees. They also support all the university students seeking financial aid or scholarships through their Office for Scholarship and Financial Aid. A number of scholarships are available to academically gifted students; these include:

- Academic Excellence Scholarships: Effat University holds its annual Undergraduate Scholarship Competition during the Spring and Fall semesters. This competition is open to all female high school graduates. Successful applicants benefit from full or partial scholarships.
- Ministry of Education (MoE) Scholarships: The Ministry of Education grants scholarships to Saudi students on a yearly basis. This was limited to continuing students in the last few years.

Also, the **Deanship of Students Affairs (DSA)** offers the Effat Ambassador Program (EAP) to all university students, including the students of the Architecture Program. The EAP program is a co-curricular program offered to enhance students' essential skills such as leadership skills, communication skills, and attitudes necessary for intellectual, social, moral, physical and professional development as mentioned earlier. Every student needs to acquire 50 value points by taking part of the EAP program. These points count towards 5% of the grade for every course taken in the semester. Besides offering various extra-curricular activities opportunities for all Effat students, academically challenged students are provided extra educational assistance from the Deanship of Student Affairs through the Educational Support Program (ESP). Such students are registered in this regular program to improve their skills, particularly in English and Math by running dedicated classes. The **Enhancement Centers**, and in collaboration with the academic departments, also provide optimum support to students on academic warning status through the Educational Support Program (ESP), a program specifically designed to cater to the need of students facing difficulties and challenges in their academic performance. The Enhancement Centers aim to enhance academic and lifelong learning skills, maximize career opportunities locally, regionally and internationally while promote community awareness within a global framework. Lately, the Deanship of Student Affairs started offering extra English Language Training to those identified to have language difficulties to ensure that all Effat students have attained the language level required for them to smoothly advance in their studies.
Effat's **Career Development Office (CDO)** also supports the Architecture Program as it aims to help students and alumnae to become leaders of the future and exceptional career women by preparing them for future employment and graduate studies. The CDO helps the students to gain broader exposure to opportunities beyond Effat University. Additionally, it helps students gain access to opportunities for learning and community service, with emphasis on internships. The CDO also helps in giving workshops for students on writing their resumés and cover letters and prepares them for interviews. The CDO also keeps a list of job opportunities for alumnae with a career counseling service. It also helps graduates apply for full-time/part-time jobs or their transition between jobs. The CDO usually shares students' CVs database with potential employers. It also announces different opportunities for alumnae to pursue their further studies.

With the growing interest to improve research output from faculty and students, the faculty of the Architecture Program works closely with the **Deanship of Graduate Studies and Research (DGSR)** to help them support their research projects. The **Research and Consultancy Institute (RCI) that belongs to the DGSR** supports the Smart Building Research Center under the ARCH Program where many researches are being done. This support is in the form of offering funding for research through the RCI competitive research grant system or supporting research groups, faculty or students, by supplying them with the required equipment or external expertise as needed. RCI also helps in offering research workshop series every year to upgrade the research skills and research capacity of all Effat faculty. RCI also provides conference participation grants to faculty and students interested to attend or participate in high profile conferences in the region or internationally. Lately, the DGSR opened an Editing Unit that helps both faculty and students edit their research work and help them publish their work in quality journals and conferences.

The **Communications and Public Relations Office (C&PR)** also helps the Architecture Program in producing all its formal publications like the Undergraduate Catalog, student planners, program brochures, program flyers, and all program events' publications. It also manages the website for the program as well as other university programs. On the other hand, the **Management of Information and Educational Technology Services (MI&ETS)** is another central unit that helps provide the technological tools and staff to support the computer labs and all technological

services around Effat University campus. The Blackboard and Banner systems are major technology platforms that all Effat programs benefit from for running their courses andadministering their academic programs digitally.

The Architecture Program is also supported by two major departments, the **General Education Department (GED)** and the **Design Department**. While the GED faculty deliver the General Education Program (GEP), the Design Program contribute every semester in delivering some design courses and workshops for architectural students as well as share in many of their projects.

On the other hand, Effat University benefits from the Architecture Program in several ways. These are outlined below:

Effat University benefits from the Architecture Program through the different learning and teaching experiences that the program provides to enrich university life. It also benefits from the valuable contributions of the faculty, staff, and students to the university through their university service, community service, scholarship and specific projects that aim to enhance the university's learning environment and support its daily operations.

It is clear that the Program of Architecture is a valuable program as it attracts a large number of young female students every year. For a long time, the number of students of the Architecture Program accounted for almost third of the total number of Effat students. In Fall 2018, the number of the Architecture Program students accounted for 30.3% of the total number of students (567 out of 1871). The faculty body of the Architecture Program (27) faculty members, excluding adjunct faculty, also represents one of the largest in the university. This active student body and its vibrant faculty members contribute greatly to the academic life that constitutes the core of the existence of the university. This takes the form of holding enriching lectures and exhibitions that are open to all students in the university and outside. Examples of these activities are the annual Memaryat Exhibition held every year by architecture students to exhibit their design projects, also each year a photography competition is held under the supervision of Dr. Marwa Hassan, she is also the leader of student committee and each year she is responsible for organizing many student activities.

Moreover, the faculty of the Architecture Program contributes greatly to the scholarship of the university. This is done through the researches they undertake under the Smart Building Research Center like the research on the effect of crowdedness in public spaces by Dr. Aida Nayer. Some faculty members contribute by bringing to the university external research funds. Dr. Mady Mohamed has managed to win a large fund for his research from the King Abdulla City for Science and Technology (KACST).

Some faculty and their students also contribute to the university by offering their consultancy services to the local community to improve the local environment

Through architecture and urban design projects. The project for revitalizing the city of Makkah's Gate, faculty contributed to prepare the proposals and to be discussed with Makkah provenance and to be proceeded into reality soon. Several students contribute to national and international competitions that are aimed at improving the local and regional environment through innovative design solutions like Deco fair Annual Competition, the Fish Lake competition Jeddah authority in spring 2018- 7 groups of students from Architecture program have contributed, and 2 groups from them were qualified to the finals and become the winners in the first and fourth prize according to the public voting. Also, Makkah Techno Valley Company Competition, and Radical Innovation Competitions where a number of Effat architectural students won first and second places.

In fact, faculty and students of the Architecture Program are involved in some of the construction projects of some of the major buildings in the new master campus plan. For example, the new Effat Library and Cultural Museum has been the result of the efforts of a number of Effat Architecture Program faculty, i.e. Dr. Mohmed Shokry and Dr. Zaki Mallasi. Also, the students of the Architecture Program were invited to tackle some the renovation projects and new buildings at Effat University Campus one of the capstone students used a thermal study for a skin used in her elevation Dr. Haifa the president asked her to prepare a full study model for the skin that might be used for the new Admission building. This is done to equally benefit from the innovative ideas of the students to enhance their learning environment as they see fit as well as give them the chance to be involved in real-life project. One good example of

this is the new building for the Deanship of Student Affairs and there-designing the green areas on Effat campus. Besides the architecture students and faculty contribution to learning, teaching, scholarship, consultancies, and campus construction projects, they also serve the university greatly by offering their opinions as members in governing bodies and institutional committees of all kinds. For example, several faculty members served as faculty representatives in the University Council, University Council Quality Assurance Standing Committees, Learning and Teaching Standing Committee, Institutional Accreditation Committees like Dr. Lobna Moustafa, Dr. Mohamed Fekry, Dr. Tarek Ragab, Dr. Samah Al-Khateeb (the former Chair of ARCH), Dr. Kholoud Moumani (the current Chair of ARCH), and Dr. Mervat El-Shafie (Dean of ECoAD).

I.1.2 Learning Culture & Social Equity

I.1.2.1 Learning Culture

In Fall 2018, the Architecture Program reached its 26rd semester of teaching architecture at Effat University. The journey has been loaded with learning experiences for administration, faculty, and students alike. This has led to the development of a unique learning culture for the Architecture Program at Effat University. This culture is based on a number of policies and principles that put into consideration the growing needs and expectations of the students, faculty, and staff to achieve the mission of the Architecture Program of providing academic excellence and the graduation of highly qualified female architects who can truly cater for the market needs of their countries. The following are the policies and principles that govern the learning culture of the Architecture Program at Effat University:

1. Admission Criteria, Bylaws, Policies and Procedures

Since all Effat University degrees are conducted in English and follow the American style of learning, the criteria for admission to the Architecture Program, which follows Effat University and the Effat College of Architecture and Design admission criteria, requires a TOEFL score of 520 (or equivalent), a TWE (Test of Written English) score of 5. (IELTS) All students who obtain a recognized Secondary School Certificate, or its equivalent, are qualified to apply to Effat University. Based on the Admission criteria for the Effat College of Architecture and Design, applicants need to have a minimum of 80% score in their high school diploma and 65% of Qiyas (National Exam) and to pass the four parts of the DMTS exam (Math placement test). All students are also required to present a personal statement about themselves and the reasons for joining the university and the program and are finally interviewed to evaluate their potential for entering the Architecture Program. The interviews are conducted with the department chair, the dean of the college, and a representative from the admission and registration deanship, the admission criteria is publicly announced at the Effat University website as well as in the students' catalog.

https://www.effatuniversity.edu.sa/English/Academics/Catalogues/Pages/default.aspx

Students who do not achieve the required English language admission scores, but whose admission tests results and the interview shows the potential of the candidate, are placed in the Pre-College Foundation Year Program at Effat English Academy, for one semester or two based on their admission test' scores. The Pre-College Foundation Year Program prepares students for higher education entry requirements and promotes academic competence and confidence throughout academic life. It aims at upgrading students' proficiency in English to the level required for the General Education courses.
The Pre-College Foundation Year Program at Effat English Academy has the following components:

Table (5) Pre-College Foundation Year Program

Foundation 1

Subj	No	Title	Level
CC	051	Intro. to the Academic Majors	PR
CL	033	Computer Literacy I	PR
LANG	021	Reading & Critical Thinking I	PR
LANG	023	Academic Writing I	PR
LANG	025	Listening and Speaking I	PR
SSKL	011	Indepen. Learn.& Res. Skills I	PR

Foundation 2

Subj	No	Title	Level
CC	054	Crit.Think.& Prob. Solv. Skil.	PR
CL	034	Computer Literacy II	PR
IL	034	Information Literacy	PR
LANG	022	Reading&Critical Thinking II	PR
LANG	024	Academic Writing II	PR
LANG	026	Listening & Speaking II	PR
MATH	044	Basic Math.	PR
SSKL	012	Ind. Learning&Res. Skills II	PR

There are some general bylaws and departmental policies that govern the relation between the student with the university and the department as well, like;

- Undergraduate Study and Examination Bylaws and Implementation Rules at Effat University.
- Effat Code of Ethical Conduct (Tarbawyyat Effat) booklet https://www.effatuniversity.edu.sa/English/About/Why-Effat/Pages/Code-of-Ethical- Conduct-(Tarbawyyat).aspx
- ARCH Department Policies & Procedures
- ARCH Department Storage Policy & Procedure
- ARCH Department IT & Printing Policy

Students of the Architecture Program have full accessibility to the above documents as some of them are on the website of Effat University, or are sent to them each semester through email and are available the blackboard like the Departmental Policies and Procedures. Other policies related to printing and storages are also shared with the students at the beginning of the semester and are available in the printing center as hard copies. Faculty also has full access to all the above documents as hard copies (in the Office of the Assistant of the Department Chair) and soft copies in the internal shared documents.

2. Approved Semester Schedule and Course Syllabi

All Effat programs, including the Architecture Program, follow the American-style learning cycle which is semester-based. The semester is 15 weeks long excluding final exams' weeks. At the end of each academic year, the students are notified of the approved academic calendar for the following academic year which is published on the website, to guide them in their registration process for the three semesters (i.e. Fall, Spring and Summer) and to be well aware of the first day of classes, add and drop dates, mid-term exams' dates, possible withdrawal dates, final day of classes, and final exams' dates. The students are also well supported by their academic advisors, assigned to them by their

departments, to help them in the pre-registration and registration processes as well as in organizing their academic life and even future career as needed.

On the other hand, students are guided in each course by the course syllabus, which is based on the approved course specification, which comprises the contract between the faculty and students. The faculty posts the course syllabus on Blackboard, the Learning Management System used at Effat University, in the first week of the semester to share with students the course description, course materials, course objectives and learning outcomes, grading system, topics to be covered, and all scheduled submissions of assignments to be completed, and dates of exams and juries to be conducted as well as the general classroom rules as set by their faculty. Also, Blackboard is used as the platform where the faculty and students communicate important messages like faculty expectations from the students regarding their studio, course grading system, course results, attendance records, as well any class announcements. Faculty also receives electronic submissions from students and put their lecture notes and reading materials for students on Blackboard. Students can also send messages to faculty and hold group discussions and respond to questions posted by faculty and colleagues using Blackboard.

Each faculty states his expectation from his students in the course syllabus. Below is a sample from one of the course syllabi provided to architecture students;

Class Contract:

CLASSROOM ETIQUETTE: The student is expected to practice good etiquette and respect for others. Punctuality is required of all students. Classes will start on time. Student lateness disrupts the efficient operation of classes and affects the team while working. Students who arrive over 10 minutes past the start of class will be recorded as late. Disruptive behaviour such as distractions, inattentiveness and disrespect (e.g., verbal abuse) will not be tolerated.

DELIVERABLES: In the profession of architecture, practicing professionals must meet deadlines, as should university students. All students work should be submitted on Blackboard. Work submitted after a deadline will be deemed late and the student's grade will be penalized by 25% (25% of the maximum score will be deducted) within the first week and 50% within the second week. Work submitted excessively late will not be accepted.

ELECTRONIC DEVICE USE: Phones or similar mobile device should be switched to silent mode during class. Calls and text messaging should not be placed or received during class. Emergency conversations should be taken outside the classroom. Laptop and handheld computers may be used for class-related work only.

ATTENDANCE: This course follows article Nine of Effat Student Bylaws: A regular student should attend all classes and laboratory sessions. A student may be discontinued from a course and denied attendance of the final examination if her attendance is less than the limit determined by the University Council. This limit cannot be less than 75% of classes and lab sessions assigned to each course during the semester. A student who is denied attending the final examination due to excessive absences will be considered as having failed that course and will be given a Denied Grade (DN).

Implementation Rules of Article Nine: A regular student will not be allowed to continue in a course and take the final examination and will be given a DN grade if her unexcused absences are more than 20% of the lecture and laboratory sessions scheduled for the course.

Therefore, class attendance will be as per the following:

1. Attending classes is mandatory for the duration of the semester, and students who attend all sessions will be awarded 5% of the courses grade.
2. Missing lecture will result in losing 0.5 % for each absence
3. The DN Warning-1 will be issued after 4 unexcused absences.
4. The DN Warning-2 will be after 5 unexcused absences.
5. DN Letter will be sent in case of 6 unexcused absences, which is 20%
6. Medical reports presented for Excused Absence are those issued from well-known hospitals, with reporting the case and the dates, and approved and stamped from Effat Medical Clinic.

EXTRA ASSISTANCE: If you are worried about your grade, see me as soon as possible. If you wait until the end of the semester, there is not much that I can do. A student in danger of a substandard course grade should:

1. Discuss the situation with the instructor as early as possible.
2. Consider withdrawing from the course within the appropriate timeframe, so it will not affect your student record.

ACADEMIC HONESTY: Cheating and Plagiarism are unacceptable under any circumstance; Students should ask what constitutes plagiarism. It is the student's responsibility to familiarize herself with the plagiarism policy, which can be found in the Undergraduate Catalogue.

Instructors make every effort to follow the set syllabus without major variations. This helps students to plan their course of study with relative ease. Since the bulk of the students' time is spent in the studio, design studio schedules include details of reviews, juries, lectures, meetings and grade distribution besides the general program of the design projects at each level. Studio schedules are explained to the students at the beginning of the semester to familiarize students with the general strategy of studio tasks.

The Program has devised a "Semester Activity Planning" document that helps plan weekly the quality processes within the program. The following Table shows a summary of the activities for Fall 2018. The faculty of Architecture Department meets biweekly in the Architecture Department Council, where they discuss and take decisions for all issues related to academic and administrative activities. For example, Software/Equipment requests from IT are done at the beginning of the semester as well as the learning resources' order to the library. Reporting on expected graduates and transfer students is done in week 6. Course Reports, Program Report, Student Course Evaluations, Strategic Planning Evaluation, self-study in the Semester Activity and Quality Report are done at the end of the semester.

Table (6) Summary of the Activities for Fall 2018

Week	Activity
Pre-semester	IT requests Orders for learning resources
	Schedule draft (courses, times, faculty) Faculty recruitment Faculty Workloads
Week 0	Orientation of the new faculty Submission of syllabi (faculty) Syllabi review (Chair) Syllabi submission to provost office (Chair) Departmental Meeting
Week 1	Registration and advising Updates to schedule Attendance Report starts (Faculty)
Week 2	Updates to schedule Advising and Registration Updates to the advisors-advisees list (Chair) Departmental Meeting Students meeting (Chair, faculty, students)
Week 3	Attendance Report for warning and probation (W&P) students Students Follow up (Advisor)
Week 4	Reporting on W&P students (Faculty and Chair) Summer Internship Presentation (Students, faculty) Departmental Meeting

Week 5	First Attendance Warning for students exceeding 10% absenteeism Submitting Midterms exams to the Chair (Faculty) Summer Internship Presentation (Students, faculty)
Week 6	Midterm exams Reporting on Expected Graduates and Transfer Students (Chair and Faculty) Departmental Meeting
Week 7	Midterm exams Senior Research Presentation – Proposals
Week 8	Departmental Meeting
Week 9	Performance report on W&P students (Students, Advisor, Chair)
Week 10	Next semester schedule Second Attendance Warning for students exceeding 10% absenteeism Departmental Meeting
Week 11	Final Exams Preparation
Week 12	Final Exam review (Chair with Faculty) Course Evaluations (Students) Departmental Meeting
Week 13	DN Letters (Faculty)
Week 14	Departmental Meeting
Week 15	Senior Project Presentations
Week 16	Final Exams (Students, Faculty) Final Grade Rosters (Chair and Faculty) Course Files (Faculty) Approval for final grades and course files (Chair)
	Departmental Meeting Senior Research Presentation- final presentation

3. ARCH Program Learning Outcomes Mapped to Effat University IQRA Core Values and Ethical Code of Conduct

As mentioned earlier, Effat University believes that the future of the nation lies in the divine act of "reading" as expressed in the Holy Quran. The verb IQRA, "read," transformed a nation which favored the oral transmission of culture and the lyrical expression of ideas into a nation that produced a formidable number of written manuscripts that managed to retain and develop knowledge throughout human history. Effat University and all its programs, guided by the vision of its founder, Queen Effat, maintains that the mission of the university resides in reviving this important part of the divine inspiration, reading, and in increasing comprehensive human knowledge to provide the nation with an infusion of new blood and guide it towards enlightenment.

To achieve this and to maintain the quality of its Graduates, Effat University created Effat Graduate Characteristics inspired by Effat Core Values "IQRA";

	Core Value	Effat Graduates' Characteristics	
I	Ibhath (Undertaking Life-long Research)	المتقنة	Itqan
Q	Qiyam (Adopting Ethical, Social and Educational Values)	المحسنة	Ihsan
R	Riyada (Developing Responsible and Creative Leadership)	الراعية	Stewardship
A	At-tawasul (Effective Communication and Reaching Out to Others)	السفيرة	Ambassador

The above characteristics are very general, but they provide the four overarching behaviors that Effat University aspires to have for its graduates in order to be able to make positive change in the local and global community. These four institutional characteristics are the guiding lines for the Architecture Program Learning Outcomes.
The Architecture Program Learning Outcomes (PLOs) allow the direct assessment of the achievement of the characteristics that all Effat Graduates are expected to acquire and demonstrate. These are as follows:

Table (7) Mapping of ARCH Program Learning Outcomes with IQRA Graduate Characteristics

IQRA Graduates' Characteristics	Detailed Characteristics	ARCH Program Learning Outcomes
Itqan	**I1**: Knowledgeable in the Field	**ARCH-K1:** Define the terminologies common to the field of architecture.
		ARCH-C3: Differentiate between different types of building materials, building technologies, and structural systems.
	I2: Critical and Creative Thinking	**ARCH-C1:** Analyze the various aspects of interactions between humans and their environment both from architecture and urban design point of view to produce sustainable, healthy societies.
	I3: Problem Solving Skills	**ARCH-K2:** Recall the importance of architecture as an area of human activities, both in the past and contemporary times. **ARCH-C2:** Integrate fundamental principles and techniques of problem solving in architecture design. **ARCH-CNIT2** Calculate relevant information, statistics, and mathematics within the design process.
	I4: Information Literacy and Research Skills	**ARCH-C4:** Design Architecture projects using appropriate computer application tools.
	I5: Interdisciplinary and Integrative Learning	**ARCH-K3:** Describe the various theoretical, historical, social, cultural, environmental and technological aspects of architecture. **ARCH-PSY1** Demonstrate mental physical coordination in producing architecture sketches.
Ihsan	**Q1**: Integrity and Ethics	**ARCH-ISR2:** Adhere to professional ethics practices common in designing, presenting, and managing a project.

	Q2: Self-Respect and Respect for Others	
	Q3: Pride in Cultural Heritage and Tradition	
	Q4: Commitment to Health and Wellbeing	
Stewardship	**R1**: Capacity for Independent Learning & Work	
	R2: Enthusiasm, Self Confidence	
	and Desire to Excel	
	R3: Spontaneous Service to the Community	**ARCH-ISR3:** Show a deep sense of leadership and responsibility to the culture and a sustainable community.
	R4: Responsible and Reflective Leadership	**ARCH-ISR1:** Demonstrate personal and professional responsibility.
Ambassador	**A1**: Cooperation and Team Work	
	A2: Effective Communication and Sharing Knowledge	**ARCH-CNIT1** Communicate effectively in oral and written forms, including the creation of appropriate technical documentation.
	A3: Reaching out to Others	
	A4: Global Citizenship	
	A5: Emotional Intelligence	

The achievement of these graduate characteristics by the graduates of the Architecture Programs are measured every semester through the measurement of the achievement of the students' learning outcomes in their Architecture Program courses, as well as in the co-curricular Effat Ambassador Program as described in this report, section II.1.1. All details of the assessment are available for faculty in the Architecture Program Assessment Manual and will be displayed in the visiting team room.

The Effat University Code of Ethical Conduct (Tarbawyyat Effat) is intended to provide all Effat programs a set of broad statements on equality and justice, respect for others, personal development, professional conduct, and social responsibility specific to university settings but general enough to guide interactions beyond campus grounds.

A detailed illustration and explanation to each of the eight pillars of the Ethical Code of Conduct is available in the

Student Catalogue 2018-2019. The Code is also supported by other policies that Effat University have in place. The Catalogue also includes sections on academic misconduct, dress code, e-mail usage and smoking on campus, good behavior, and decorum. The students of the Architecture Program are made aware of these and other regulations through different channels: Student Planner, Effat University and Program Website, and University and Program Orientation Days. Students are also regularly and constantly reminded of these codes through their emails.

The highest authority in all matters related to ethics at Effat University is the University Ethics Higher Committee which is chaired by the President of the University. Four ethics committees emanate from the higher committee and are formed by the President and approved by the University Council to handle cases involving students, faculty, staff, and researchers.

The Students' Ethics Committee is composed of the following members:

1. Dean for Student Affairs (Permanent Member-Head)
2. Dean of the College that houses the student(s) and case under investigation (Invited Member)
3. Faculty of Islamic Studies (Non-permanent Member)
4. Representative from Student Government or Student Shura (Non-permanent Member)
5. Representative from the University Legal Affairs Office (Non-permanent Member)

The Code also sets the roles and responsibilities of the committee and its members who handle cases of violations of the code immediately.

Guided by the Effat University Code of Ethical Conduct, it is always expected that staff members would act in an ethical and professional ways. In order to protect the female student from any case of discrimination or harassment, Effat University is opening the door for all students to report of any incidents through concern and direct meeting with the Dean of Students Affairs. However, if a staff member fails to meet the expectations, s/he was proved that s/he involved in one of reported incidents, s/he may be subject to disciplinary procedures. Thus misconduct incidents could be referred to Management of Human Resources (MHR) Director or any other members in the institution in confidence. S/he by his role is to report the incident to the Higher Disciplinary Committee for appropriate action. The staff member has the right to appeal against the Disciplinary Committee's action by addressing a request to the President for final decision based on submitted supportive documents.

The procedures in the dispute resolution policy are administered flexibly and expediently at the lowest possible profile with the cooperation of all concerned. In severe cases where court actions are involved, the university must resort to Effat University Legal Office.

Assessment of the level of integrity at the Architecture Program at Effat University is measured by the amount of incidents reported and resolved. There is a significant achievement in terms of the numbers reported as it is always below the target of the number incidents expected compared against the total number of students (0.05%). The 0 incident on the part of faculty, staff, labor, and researchers under the Architecture Program is an excellent indicator of the ethical environment at the program and Effat University. According to the independent opinion of PARC (Pan Arab Research Center) who conducts the annual faculty and staff survey, it was found that the perception of faculty and staff about the awareness and adherence to the ethical codes of conduct at Effat University among students, faculty and staff is relatively high 75% in Spring 2019.

4. Female Empowerment

Many of the female students enrolled in the Architecture Program come from a distinct cultural background, as characterized in the Saudi society and the Arab Region. Therefore, the teaching strategy followed in the program, ***IQRA-Based Teaching Model***, aims to prepare these young ladies to live and work in a global world where diversity, distinctiveness, self-worth, and dignity are nurtured and respected. It is the mission of the program to empower them to emerge as leaders in the academic setting and the profession; to understand the breadth of professional opportunities; to make thoughtful, deliberate, informed choices; and to develop the habit of lifelong learning.

Because of the significant cultural and environmental setting of Saudi Arabia, because of where its students come from, and because of its setting which is unique for architectural study, the Architecture Program starts with a

commitment to studying the local in familiar ways that help students look at it with very particular qualities and measures. Through this, students learn that design thinking in significantly traditional communities is articulate, well designed fabric that holds their place in a long, rich tradition of human settlement. The local urban context is a well-connected fabric of a very uniquely grown metropolitan city. However, the extremely hot weather does not allow for expansive agrarian landscape. Thus, design is a practice that involves understanding of people, investigation of local history, and cultural and environmental studies. Building on what has been mentioned before, different design studios afterwards help students to tackle problems with different scope and scale. One could start with an extended family house design that gets one immersed in local contexts and ends up joining an international competition for designing an embassy or designing an eco-resort in a nearby gulf country. Effat female students are empowered throughout their learning experiences, which are mostly project-based/design-based, to think critically and design creatively what they believe will fit the needs of the people inhibiting the new structures they are designing, taking into consideration the outcome of their research of the inhabitants' history, culture, and environment. Students also learn to discuss, argue, and defend their designs, with their faculty and colleagues, and finally in front of internal and external jury, in a respectful manner to prepare them for what is expected in their future professional contexts.

5. Studio Management & Design Projects' Reviews

The Studio Culture is maintained in the ARCH program. Every studio has one dedicated instructor which is assigned by the Chair of Department of Architecture. For senior studios, teaching assistants are available as well. As per the Studio Management Policies and Procedures implemented by the Department of Architecture, the coordinator is responsible for preparing the studio brief, organizing the overall functioning of the studio, and arranging reviews and juries. Grades received during these reviews are posted on a regular basis so that students are aware of their status at all times to take the opportunity to improve. As a matter of fact, the bulk of the grades for the whole semester (60%) are based on the internal reviews. While mid-term juries are attended by studio instructors and instructors from other design studios, the Final Jury comprises instructors from other levels only and external jury (i.e., practitioners from the community). However, the studio coordinator is in attendance during all these juries to help clarify issues that might arise during these sessions.

It is important to state that studios open to students throughout the day and each student has a seat of her own throughout the semester. The number of the students in each studio is from 10 to 16 students' maximum. However, overnight stay in studios is not permitted due to the local cultural and traditional norms. Instead, students can stay late up to 9.00 pm to use computer or printing facilities, especially at the end of each semester. Many students, therefore, work at home, using their own traditional or technological drawing facilities.

All details of studio management and design project's reviews are illustrated in the Architecture Program Policies and Procedures which are available for faculty and students as well. A copy of it will be displayed in the visiting team room.

6. Learning through Collaboration & Teamwork

The environment in the architectural studios encourages students to work both individually as well as in teams. Students at all levels work in teams while doing the preliminary research and studies that lay the foundation for the design tasks ahead. This policy is carried even further in the third year design studio (urban design studio - studio 6) where students work in larger groups (6 to 8 students) during the site and conduct current condition analysis, SWOT analysis, and undertake the development strategy stage and then work on the design issues in smaller groups (2 to 3 students). Students from other departments are always welcome to attend the architecture studios to discuss issues related to architectural design, especially from design department and visual and digital production, the sister programs under the Effat College of Architecture and Design. Working in teams is considered one of the major learning outcomes to be developed by architectural students as it helps in developing their characters as well-rounded individuals and to be able to work in the future in the professional world with an attitude of collaboration.

The policies set to manage how students use shared design facilities offered by the Effat College of Architecture and Design like computer labs and the printing facilities center help in enhancing students' sense of management, collegiality, and community. As mentioned earlier, the architecture program process and procedure, besides ARCH Department storage policy and procedure and the ARCH Department IT & printing policies are available for both faculty and students to govern the life of the ARCH students in the architecture department.

7. Work Environment

Studio culture is built on the concept of belonging, hard work and bonding between students and instructors. Each student has a fixed seat for the whole semester. This enables her to feel her place is more like her home. So, she can stay after hours to work on her assignments. Each studio instructor outlines the studio culture with his or her students, including setting up rules for coming to the studio on time; managing time of the studio; limiting the conversation between students to topics related to design related work and technical issues; maintaining an organized and clean physical environment; maintaining studio hours as per semester schedule; and jury participation. These are some of the values that are promoted by Studio coordinators at the Architecture Program at Effat University. Some coordinators can request closing cell phones or limiting its noise. Although students are allowed to bring hot and cold drinks to the studio, students are strictly monitored so that they do not leave paper cups, plastic or glass bottles lying around. It is their responsibility to keep the studio clean as their own proudly learning space**.**

8. Adequate Physical Resources and Learning Resources

In the first two years of the implementation of the program (2004-2005 & 2005-2006), ARCH facilities comprised of only two studio spaces in what was known earlier as the Business Administration building. Computer lab facilities were shared with other departments. Administrative space and teaching classrooms were refurbished according to the needs of the program. In October of 2008, a building of 2225 m², which was used before as a kindergarten for Dar Al-Hanan School, has become the department's building and thus comprehensive permanent facilities were provided for ARCH Program on campus. Thus, the eventual home of the Architecture Program, ***the Effat College of Architecture and Design Building***, was designed to accommodate 33 design studios, 2 educational computer labs, and one students' open computer lab, in addition to the administration and faculty offices. All furniture and equipment needed to administer the program and teach design courses as well as computers and media equipment needed for completing assignments have been purchased. The space has become a study in spatial layout, with a double height 300 m² open hall that enjoys two skylight patios in which exhibits for the drawn, photographed, and printed work of students are placed. Most of the furniture has been set up on casters so it can be easily moved and used to shape the spaces in which it sets to maximum effect. There are 8 small stores to keep students' work. For regular classrooms, the Architecture Program used common shared facilities with other colleges (e.g. College of Business and College of Engineering) to optimize the use of the available space. In 2016-2017, the Architecture Department expanded its facilities to ensure that each student has her own individual workspace. In addition, extra lab spaces were provided to enhance the existing architectural labs. This included the fabrication lab, the 3D printing area, environmental and materials' labs. For research purposes, the Architecture Department has also built the Smart Building Research Lab in 2014, to be used by faculty and students alike to be extended by the environmental design of buildings Lab. The achievement of adequate internal environment quality (IEQ) lies at the core of every debate about built environment of buildings. Architectural faculty, researchers and students need to test the performance of their research activities, experiments, capstones and projects at the initial stages of the design or experimental process. Onward with this concern, the environmental lab was established in fall 2017 as an appropriate lab that is able to host computer-based simulations and physical modelling.

Under the coordinator Dr. Mady the Lab **Facilities are:**

1- Sky dome
2- Artificial sky (to test the quality and quantity of lighting inside the paces)
3- Heliodon (To test the solar penetration, and shadowing studies)
4- Hand Held and Data Loggers equipment to measure the different factors affecting thermal performance for occupants inside buildings
5- Micro station (That includes, Solar radiation Sensor, Light sensor mounting bracket, Light sensor level, rain shields, Temperature and RH Sensor, air pressure sensor, Rain gauge)

Also, for a complete picture of the physical facilities that make up the physical learning environment designed for students, faculty and administration of the Effat Architecture Program, please see section I.2.3 in this report. This continuous space development was experimental and challenging, and the redesign involved faculty and students of architecture to participate their design ideas and involve them in the development of their own learning environment in the way they see fit as members of one family- Effat Family.

On the other hand, the learning resources provided by the Effat Library and Cultural Museum and the Management for Information and Educational Technology Services (MIETS) are adequate for the ARCH program requirements and the courses offered within the program. Students express their satisfaction in the Course Evaluation Survey (CES) at the end of every semester, in addition to the Students Experience Surveys (SES) conducted by all students every semester and the Program Evaluation Survey (PES) which is conducted at the final year before graduation. The students are satisfied in general with the adequacy of the library services as it shows clearly in the results of the surveys in Fall 18 as shown below.

Table (8) Results of Students Experience Surveys & Program Evaluation Survey

	SES Fall 2018	PES Fall 2018
No. of Students	**476**	**87**
No. of Participants	**223**	**43**
Response Rate Students	**47%**	**49.43%**
Total Satisfaction Rate	**3.71**	**3.89**
Part 1: Advice and Support	**3.61**	**3.97**
Part 2: Learning Resources and Facilities	**3.66**	**3.81**
Part 3: Learning and Teaching	**3.43**	**3.58**
Part 4: Overall Evaluation	**3.83**	**4.02**

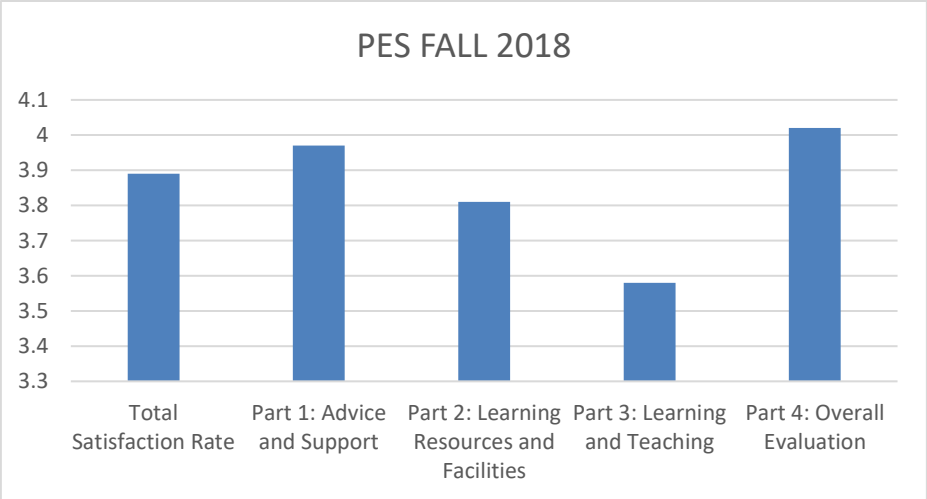


Figure (3) Program Evaluation Survey Results for Fall 2018

The architecture program works collaboratively with the library to keep the architecture books acquisition up to date. The book titles and the electronic collection are widely available to students and faculty members in the library as well as online databases. In addition to the variety of the book titles and electronic collections and data bases available, the students are served by well qualified library specialists who can assist the student in any need. They also provide variety of group information literacy workshops and give one-to-one sessions to support students in their project and research work. The website of the library has been redesigned and improved recently enabling easy access to the e-resources by field of specialization or by alphabetical order in a user friendly way. By the end of Fall 2018, the number of the book collection available to architecture students reached 1928 as print books and 9835 as e-books with total number of 11,763 books (print and digital) with a ratio of 16 books per student. The library also provides 528 full journals and subscribe to 5 architecture and art related databases. These include Art & Architecture Complete (Ebscohost), Arts (Proquest), Communication & Mass Media Complete (Ebscohost), Environment Complete (Ebscohost), and Safar (please update the data here too). See the table below for fall -18

Table (9) Library Collection for Architecture Program Fall 2018

college	No. of students	Print books	eBooks	Total Books	Ratio Book/student
COLLEGE OF ARCHITECTURE & DESIGN					
ARCH	589	2816	5579	8,395	14.3

Table (10) Library Collection for Architecture Program Spring 18

College	No. of students	Print Books	EBooks	Total Books	Ratio Book/student
COLLEGE OF ARCHITECTURE & DESIGN					
ARCH- Spring 18	613	2816	5579	8.395	14 total
ARCH- Fall 2017	656	2383	5579	7,962	12 (total)
ARCH- Spring 17	709	2337	5579	7,916	11 total
ARCH- Fall 2016	732	1928	9,835	11,763	16 (total)

9. Academic Partnerships

Per the general policy of Effat University, all academic programs must have academic partners, national and international. They need to have at least one agreement with one international academic partner that helps to support the academic program and keep it in touch with the latest educational developments in the field. The Architecture Department at Effat University has two agreements with two famous US schools of architecture; the first agreement is with University of Miami, and the second is with Kent State University. Every year, the Architecture Department is visited by representatives from its partners to review the status of the program in terms of its physical facilities, academic content and learning processes.

On the other hand, students who join the study abroad program travel to these universities to study one semester in them or get the chance to take summer courses abroad.

Additionally, the Architecture Program hosts the Architecture Association School of Architecture (AA) international workshop (2018-2019), and some of Effat architectural students attended those workshops. These workshops feature a rare opportunity to enjoy unparalleled access into restricted never seen before sites of Makkah and to participate with local artists, architects and professionals across many disciplines in the Gulf. It is first global architectural workshop focusing on Makkah.

The ARCH department recognizes the need for more community networking to outreach for significant community events. In collaboration with the CDO, the ARCH program has started approaching local and international

architecture firms and building construction companies to provide required advice and students' placement for internship and training to develop an active database of potential local industries and employers for example SHIHAR Consultants, National Builders, MASS Consulting Engineers, office of engineer Hussein Hassan Bairi, KUTLA Architects Edge ARCH.

On the other hand, the ARCH Department PAC Committee, which is formed of local employers and members of the architecture professions, is meeting twice a year to advise and comment on the program and other institutional activities as well as review the latest trends in the profession and possible opportunities for internship and employment for the Architecture Program Graduates.

National and international networking is established to develop collaborative relationships and feedback from the professional body among faculty and students. The department invites every semester several figures from the local and international architecture community to act as advisory panel, speakers, and jurors for design projects Assessing the ultimate program's success is performed, along with other well-structured metrics discussed later in this report, by assessing the successful students' outcomes of core subjects such as Architecture Design Studios by external jury every semester. This mechanism is essential to the learning culture of the program. Below is a list that shows some external examiners for Fall-18 –Spring 19.

External Examiner for Capstone Project

- Prof. Khaled Ali Yousef
- Prof. Ahmed Shehata
- Prof. Wael Yousef
- Dr. Mohammed Babsail
- Arch. Tarek Shalaby
- Arch. Anas Serafi
- Dr. Mona Helmi
- Dr. Hasan Waked
- Arch. Talal Samargandi
- Prof. Elsayed Mohamed Amer
- Dr. Mohamed Fageeha
- Prof. Ahmed Rashed
- Arch. Anwar Basunbol
-

External Examiner for Studio8

- Dr. Ibrahim AlBokhary
- Arch. Tarek Shalaby
- Dr. Hasan Waked
- Arch. Talal Samargandi
- Arch. Abdulaziz Albarrak

10.Academic Diversity

The Architecture Department, following the general policies and strategies of the University and the Effat College of Architecture and Design, aims to achieve diversity among students and faculty to help develop a rich its learning and teaching culture. When the program started in 2005, it had 4 faculty members, only one of them was Saudi. Hence, 75% of the faculty was international. In Fall 2018, the number of international faculty reached 25 out of 26 full-time faculty and teaching staff (excluding part-time faculty). Thus, 90% of the faculty is coming from other countries including Egypt, Jordan, Lebanon, New Zealand, Canada and USA. This shows the growth that took place in the number of the faculty and their diversity. On the other hand, the student body in 2005 included 90% Saudi nationals

and 10% international students (9 students out of 10). The international students are mainly the daughters of the expats and residents working in KSA. In Spring 2019, the overall percentage of international students at Effat University reached 16% compared to 13% in Fall 2016. The Architecture Programs, along with the College and University, continues to work towards encouraging recruitment of international faculty and students to maintain this diverse culture. Currently, there are more than 10 nationalities represented among students in the ARCH Department, including students from Yemen, Egypt, Lebanon, Pakistan, India, Nigeria, Bangladesh, Sudan. This presents a great learning environment due to the plethora of diversity of ideas and cultures. Although Effat University is a female only institution, 54% of the faculty is female, while 46% are male. Moreover, eleven years of incoming student cohorts have also varied greatly in terms of the location of residence. Cohorts seem to break down to roughly 1/3rd from those living in the city of Jeddah, 1/6th from Western Emara cities, and 1/6th from Eastern Emara cities. Thus, the cultural variety among students enriches their learning experiences, and enhances their communication skills.

11. Collaboration and Leadership

The Architecture Department takes collaboration and leadership as a framework for developing, nurturing, and empowering faculty and students as part of upholding IQRA values at Effat University. This is regulated by specific policies that require faculty and students to contribute to the programs activities, university-wide activities and also help them share in community service activities. The new workload for faculty is consisting of three main domains; teaching, research and community service. Each faculty should divide his timetable to accommodate all his activities in teaching, research and community service. The evaluation of the faculty end of the year is measuring his achievements in these three domains. For example, faculty from the ARCH Department served on many internal university committees and task forces leading to the development of Effat University strategic plans of 2007-2012, 2012-2017 and 2017-2022. They also shared in developing and enhancing the University campus plan. In addition, ARCH faculty actively contribute to the program activities and lead the efforts of the department and the college to enhance their teaching and learning environment by collaborating on tasks such as the architectural design of the new building of the ECoAD, the development of the new academic programs of the Bachelor of Design and the Master of Urban Design in the Effat College of Architecture and Design, and the establishment of the Smart Building Research Center. Leadership opportunities are also encouraged and exercised among faculty throughout the administrative positions that are assigned to them if they choose to uphold and based on the leadership skills and capabilities they present in their service to their program and college. These include becoming an advisor, coordinator, director, chair or dean. In this way, the University and the College help the faculty of the Architecture Program exercise their leadership skills in running their own program and benefit from their involvement in all activities that help to enhance the teaching and learning culture for them and their students.

On the other hand, students of the Architecture Program, in addition to their representation in some of the governing bodies and committees, also collaborate with the University's Deanship of Student Affairs to enhance the learning culture and student life by participating in building a democratic educational environment for students through Student Government and Student Shura, which are governing bodies run by students for students. Students also participate in the activities of several students' clubs and volunteer in serving their campus community as well as the community outside. Students get value points in return for these collaborative activities that are recorded, either as part of Effat Ambassador Program or their extra-curricular activities' records to fulfill the Effat Ambassador Passport requirements. All the policies for calculating these points and their recording in the students' passports and transcripts are announced in the Student Catalog and presented to students through university orientations. Furthermore, the university helps students to enhance their leadership skills through the Enhancement Centers that are established under the Deanship of Students Affairs, to support all students especially those who are academically challenged. As mentioned earlier, the departmental advising support academically challenged students by guiding them to receive extra educational assistance from the Deanship of Student Affairs through ESP (Educational Support Program). Such students are registered in this regular program to improve their skills particularly in English and Math by running

dedicated classes. The Enhancement Centers at Effat University provide guidance and support to all students throughout their academic journey and empower them with the skills needed to achieve their goals. They also encourage support from colleagues through the peer- tutoring program where senior students volunteer to support younger ones in their studies. This is another way for encouraging collaboration and developing leadership skills among students.

12. Professional Opportunities

Effat University considers its alumnae employability as the main indicator to evaluate the world-class education it prides itself in offering. The University, College and Program work together to increase employment in the community for their students by continually analyzing the employment trend in the market area with the support of the Career Development Office (CDO), in order to help create jobs for graduates as well as identify new places that can hire Effat students. The professional experience course (internship) also introduces students to the available offices, firms and associations that are looking for new candidates and educate them to the norms of working in the real world. Many of the internship of Architecture Program students end up with their employment.

Effat University internship handbook provides all Effat students with information related to internship. The summer internship is designed to give students the opportunity to develop skills in different areas of architecture and to practice projects related to the Effat curriculum. The summer internship is comprised of two components. The first component includes 120 hours of formal training and supervised project work. This formal training takes place during a 5-6 week period at an approved organization. The second component takes place during the subsequent semester in the course ARCH 557: Professional Practice. Additional details about the course will be displayed in the visiting team room.

The visibility of Effat University alumnae employability is demonstrated in the geographical distribution of its working graduates, where 45 % of graduates are employed in the Kingdom of Saudi Arabia, 2.38% in UK, 4.05% in USA, 1.30% in Canada, 6.39% in GCC countries, and 8.6% in the other countries. Almost 57% of ARCH graduates are working, 7% are making their graduate studies, 19% are seeking job, and 17% are not reachable because we have many international students and some of them return to their countries. These percentages reflect the extent to which Architecture Program at Effat University strives to make a difference and participate in the socio-economic development of the Kingdom of Saudi Arabia at the national and international levels.

13.Stewardship of the Environment

Since its inception, the Architecture Program at Effat University has recognized the need for students and graduates that are keen about the environment as a whole. Whether dealing with the natural or the built environment, faculty at Effat Architecture Program emphasize respect for diversity, nature, and heritage. All courses from junior to senior levels endorse these values, and this could be easily read in course specifications and syllabi. Topics for research and/or design problems reflect this as well. The Departmental Council and the Academic Affairs Committee also encourage all instructors to incorporate real life design problems into the syllabi. This helps students, future graduates, to beready for handling future realistic contexts.

The expertise and background of the majority of the faculty is in the field of sustainability, environmental planning, and design. This gives more credit to the work they do with students as well as in the field of scientific research. The latest "Sustainable Campus Initiative," is a clear example of the commitment to the immediate and wider context that architecture faculty and students live in. This initiative includes emphasizing sorting waste and encouraging students to sort their waste among paper, glass and organic wastes.

The architecture curriculum contains some theoretical courses that emphasize the environmental aspects in the design like ARCH240 (Architecture, Culture, and Environment) and ARCH453 (Energy & Design), in addition to dedicated studios to apply the adaptive architecture and environmental aspects.

14. Community and Social Responsibility

ARCH Department strategic plan states the importance of serving the community for which architecture performs it activities. There is a chance to serve the community through the help in developing the campus and offering art courses to university wide students and staff as well as members from the community as needed. All activities involving the community are planned and organized in collaboration with the Provost Office, Communication & Public Relations Management as well as the Executive Education and Community Service Institute (EECSI). In fact, one of the seven major centers for serving the community under the EECSI is coordinated by the College of Architecture and Design. The mission of the **Effat Art, Architecture & Design Center (EAADC)** is to "provide quality and professional training services on Art, Architecture, and Design that enable trainees to achieve their educational & Professional development goals." The center organizes several workshops (free and with minimal fees) to serve the community of students, trainees, and local community. The workshops cover a wide spectrum of varied disciplines such as introducing new software, improving skills, exploring new trends, etc. The center has partnered with the Saudi Arabia Society for Culture & Arts (SASCA) and the Saudi Umran Society and managed to offer training on it in 2018-2019. Some of the workshops and training courses have been offered to the community like the below:

Table (11) List of the Workshops and Training Courses Offered to the Community

Activity Type		Outcomes	Remarks
Executive Education	Annual Planning	Implementation of the Annual Plan	
	Course Offerings	Adobe Photoshop	10 students completed the course offered in 14-Oct-18/4-Nov-18
		Special Preparation Interior Design	Postponed to SPRING19 to replace the instructor
		Adobe Illustrator	10 students completed the course Offered in 15-Oct-18/14-Nov-18
		Basics of Interior Design	6 students completed the course offered in 17-Oct-18/7-Nov-18
		In Design	9 students completed the course offered in 17-Nov-18/2-Dec-18
		After Effects	Postponed to SPRING19 to replace the instructor
	Courses Development	Automotive Design Course	Preparing the Course Description
	Program Development	Graphic Design Diploma	Preparing the program description for approval by UC
	Recruitment	Dr. Reem AlSabban	Interior Designer
		Ms. Manal Shanabla	Graphic Designer
		Maryam Mousa	Interior Designer
	Collaboration	M.O.U. with Saudi Society of Culture & Arts (SASCA)	Starting 2 activates through the collaboration (Photography Competition, 1001 photos of Makkah Book Competition)
		Effat Certified Autodesk Training & Testing Center	60% completion, Communicating the international Autodesk company, receiving and analyzing the offer, preparing comparative analysis submitted to Effat testing center
		SCE	Preparing courses proposal according to SCE requests

		Adobe, Accreditation of Effat University as a certified Adobe Training Center	• Offer approval. • Getting approval on the part-time instructor contract
Community Service	**Annual Planning**	Implementation of the Annual Plan	
	Workshops /Events	In Design Workshop	Oct. 3rd, 2018
		SASCA event	Oct. 18nd, 2018
		Parametric Workshop	Nov. 19th, 2018
		SCE	Oct, 24th, 2018
	Facilities	Effat hall	Working in collaboration with SASCA to start offering an art play at Effat hall for public
Consultancy	**Annual Planning**	Consultancy manual	60% completion, Revising and updating Effat consultancy manual to be approved by UC
		Enhancing the city image of Jeddah	Team coordinator
		Emarah of Makkah, Makkah Gates Landscape initiative	Team established and Submitting the 1st report and the conceptual framework.

ARCH Department in collaboration with the Career Development Office has also established a good start for approaching local and international architecture firms and building construction companies to provide any required advice and consultancies. In addition, all Architecture Program students are supported in serving their community by emphasizing handling design problems and research topics that deal with real community issues. This is evident throughout most courses, with higher emphasis in graduation studios and the internship.

I.1.2.2 Social Equity

Effat University is a multicultural environment with members – faculty, researchers, staff, and students – from every continent. These members engage collaboratively or individually in different activities and at different hierarchical levels. Thus, it is of utter importance in such a multifaceted community that all members recognize and respect not only their rights and responsibilities, but those of others in the communities – national and international – they interact with. All members of Effat University – faculty, researchers, staff, labor and students – full, part-time, or visiting are responsible for their own behavior and are obliged to conduct themselves in a manner that upholds the key principle of social equity and integrity as reflected in IQRA Core Values, the Characteristics of Effat University Members, the Ethical Code of Conduct and the Legacy of Queen Effat. The Architecture Program, following the ethical values of the University, fosters the values of openness, honesty, tolerance, fairness, and responsibility in social, moral, and academic matters. Also, all the Architecture Program members must keep in mind that the integrity and reputation of the Program, College and Effat University with regard to each and every undertaking are of equal importance and must be protected.

'Tarbawyyat' (تربويات) is the name of the pillars that make up Effat University Code of Ethical Conduct. Tarbawyyat is the plural of 'تربية', which is associated in Arabic with educating human beings to a standard of manners and equipping them with the necessary knowledge and skills to lead a successful role in the communities they inhibit based on positive ethical values. Inspired by this all- inclusive, holistic noun, the Architecture Program under the Effat

University adopted eight fundamental pillars into what it refers to as Tarbawyyat Effat. Two of these important pillars which have been mentioned at the beginning of this report are the pillars that refer to integrity and social equity which are;

- Seventh Pillar: امانة (Amanah) Ethics and Integrity
- Fourth Pillar: بنيان مرصوص (Bunyan Marsūs) Cooperation and Collaboration without Discrimination.

Thus, the Architecture Program following the University's does not tolerate fraud, theft, embezzlement, harassment, discrimination, violence, favoritism, or nepotism, conflicts of interest, corruption in all its forms, misappropriation of University property or funds, or violating any of Effat University codes and policies. The University, College, and Architecture Program have the right to seek prosecution against individuals who violate codes and policies and/or other disciplinary actions.

Moreover, being an educational institution that endeavors to achieve excellence, the Architecture Program, under the umbrella of Effat University, is convinced that effective communication, interaction and outreach, collaboration and partnerships are all sources of inestimable value to all members at Effat University, and to society at large. All members of the Effat family, therefore, embrace a culture of collaboration characterized with maximum individual commitment and contribution, tolerance, modesty, flexibility, creativity, value-adding, acceptance of others, and recognition, believing in the unity and harmony between all mankind. It places high emphasis on cultural sensitivity, especially in balancing collaborative and individual interests and activities. The University regulates such interests and activities through a number of policies in its Policies and Procedures Manual. Activities that represent a case of failure to meet these regulations and/or considered incidents of misconduct may result in enforcing disciplinary action including the possibility of dismissal of the student and/or staff member. All the supporting documents that are available for the faculty and staff regarding integrity and social equity will be displayed as well in the visiting team room.

I.13 Response to the Five Perspectives

A. Architectural Education and the Academic Community

Saudi Arabia continues to grow as one of the leading emerging economies in the world whose 10th Plan of Development has laid great emphasis on diversifying its resources of income and developing a knowledge-based economy. Now, the country is also looking ahead towards its **Vision 2030**. The Saudi Vision 2030 is built around three themes: *a vibrant society, a thriving economy, and an ambitious nation*. The vision is thus driving the whole country to take pride of national identity, adopt high ethical values that stem from the religion of Islam and develop the new generations on love of their heritage to help build the new cities and fill them with young people who know how to take care of themselves and others. Higher education is an important arm in fulfilling this vision. The Architecture Program at Effat University is also sharing in working towards this agenda by enriching the academic life of the community of the Architecture Program which comprise of its faculty, students and staff who contribute to the development of the university's learning and teaching, scholarship, university service, and community engagement.

Concerning the architectural education provided to Effat Architectural students, the faculty of the Architecture Program provides students with the type of architectural education that can help them build a thriving economy and nurture an ambitious nation. This is done by developing a vibrant community of innovative architects and designers that uphold essential ethical values that stem from Islam and Effat IQRA values to qualify them to become the responsible leaders of the future in the field of architecture. As mentioned earlier, the Architecture Program at Effat University has a strong liberal arts foundation as it provides students with 42 credit hours of a wide choice of courses in the humanities, sciences, and languages under the General Education Program (GEP) to help them become critical thinkers, globally aware citizens and life-long learners. The courses offered in the GEP are organized under four categories each of which support the 4 IQRA values and help to develop the 4 Characteristics of Effat Graduates.

The full list of all architecture courses available in part II.2.3 and table (47 to 50) Curriculum study plan.
As can be seen in the curriculum of ARCH program, the courses provided a good range of theoretical and practical courses. Even theoretical courses like "History of Architecture" are twined with critical and practical design work to make sure that Design Studios are the core of the training provided to the architecture which is culminated by the comprehensive design studio to produce a full project and a Professional Practice course that bring the students closer to the market.
The government of Saudi Arabia continues to support and empower women education and employment as per the Kingdom's 10th development plan. In the new initiative for the Kingdom of Saudi Arabia **"Saudi Vision 2030"** in its second theme, the thriving economy aims to increase women's participation in the workforce from 22% to 30%. The Architecture Program at Effat University is supporting this great initiative as it was the first to launch the Architecture Program for women in the Kingdom starting 2005 to offer professional training to female architects entering this specialized labor market and thus contributes to the increase in the number of female architects. The female faculty members who are educating Effat architectural students themselves are models of pioneering architects in their own fields and communities. The male faculty who are hired to teach the Architecture Program at Effat University share the same belief of empowering young female architects to enter the working force. The curriculum of the program of architecture was developed, and is continuously revised, taking this point into consideration. In fact, the whole degree offered is considered a professional degree that is leading to graduating practicing architects. Review of the courses and all course syllabi as well as the internship module in the Professional Practice course and various activities undertaken by students with the support of their faculty show the emphasis on the practicality of the degree to help prepare female architects to work in the field of architecture. All the graduates of the Architecture Program –Saudi citizens and international resident- can apply for membership in the Saudi Council for Engineers immediately after graduation. Also, international graduates of the Architecture Program can apply for membership in the Architecture Agencies in their home country.
With Effat University transition from a college to university status in the year 2009, the faculty of the Architecture Program was encouraged to contribute to scholarship by developing their design ideas and research projects or working collaboratively with members from the other departments at Effat University or externally on research. The 2012-2017 research strategic plans at the University, College and Departmental levels aimed at encouraging meaningful research activities, offering assistance to faculty conducting research and evaluating this intellectual contribution annually as part of faculty performance evaluation which assumes 60% of the total required for promotion of professorial rank faculty members.
The goal was to create a research culture and make high-quality research practice as a built-in component of the departmental activities. To achieve this strategic goal, the ARCH faculty is supported by a number of major institutional policies and their related guidelines, procedures and evaluation systems which were set by the Deanship of Graduate Studies and Research and the Research and Consultancy Institute to foster an increase in the quantity and quality of the departmental research outputs and ensure research sustainability. These policies include, for example, policies on (inter)national collaborations, visiting researchers, Incentive Policy, Researcher appointment Policy, Publication Awards Policy, sabbatical leaves, research with human participants, balancing faculty workload and time allocated to research, honorary research chairs, and conference participation grans and research grants. The implementation of these policies at the departmental, college and institutional levels are assessed according to a number of approved KPIs which include:

a) The number of publications per faculty per year with the ultimate target to achieve one indexed publication per year.
b) The H Factor with the target to achieve an H factor ≥ 5.
c) The percentage of budget spent on research. The target for this KPI is 5% of funds to be spent on research per institution and college.
d) The number of publications per graduate students 0.4/ year.
e) The number of conferences held per year, with the target to hold at least one conference per year per college.
f) The level of satisfaction of conferences held at Effat University (target is 80% by 50% of participants).

g) The level of contribution of research chair/research centers funds to research output with a target of 30%.

With the support of the Architecture faculty, the ARCH Program has set more specific goals, objectives and activities to enhance its faculty research contributions. These were as follows:

- To engage faculty with a lead role to publish research outcome for both applied and academic purposes.
- To work with students (undergraduates and graduates) to coordinate selected topics from their assignments or theses to co-author conference papers. This can be in the format of short or long paper submissions.
- To participate in architectural competitions with different arrays to demonstrate innovation and also to capture useful lessons learned about processes.
- To establish a collaboration method in-house and externally to seek collaboration between researchers.
- To encourage joint research proposal applications with internal faculty and other external institutions across disciplines with a view to enhance the collaborative research output in terms of level and quality.
- To obtain research grants. This is usually done through the internal grant schemes offered by the Graduate Studies and Research as well as seek external grants from well-known research bodies.
- To identify value-added Applied Research areas.
- To foster cross-disciplinary collaboration among internal (University) and external (practice) partners.
- To consider establishing a well-organized research Centre in the Architecture Department.

In 2018-2019, the College of Architecture and Design refined its research directions and aligned more closely with the Saudi Vision 2030 as well as with the research caliber of the members of the ARCH Department. These directions and initiatives are as follows:

Sustainability & Green Research:

- Energy efficiency of buildings,
- Human Comfort,
- Environmental Impact Assessment

Urban Design:

- Smart Cities,
- Urban development, and regeneration
- Urban Heritage Conservation, construction Technology & Project Management,
- Strength and durability of construction materials,
- Smart building materials,
- Compressed Earth Construction,
- Project management.

History & Theory:

- Heritage Conservation
- New Theories in Architecture & Design
- Architecture and Design pedagogy

The faculty of the Architecture Program have benefitted from utilizing all the research resources made available to them including the most up-to-date library resources of books, databases, and journals, adequate laboratory space and equipment, research funds offered internally or externally, workload reduction policies and sabbatical leaves. The program also maintains an adequate budget for conducting research and providing research support based on need at a level consistent with institutional and departmental policies.

Some of the major achievements of the architecture faculty in terms of research in the last five years were the establishment of the **Smart Buildings Research Center** and the research labs and research groups associated with it. The Smart Building Research Center was established in 2013 and opened by HRH Princess Lolowah Al Faisal, Vice Chair of the Board of Trustees and General Supervisor of Effat University. It was directed by Dr. Zaki Mallasi, who was also the head of the Computational Design Lab in the smart building research center. This research center is currently directed by Dr. Mady Mohammed, who is the head of the Environmental Design of Buildings Lab in the smart building research center.

Smart Building Research Center

Saudi Arabia 2030 Vision is built around three themes: a vibrant society, a thriving economy and an ambitious nation. The first theme: A Vibrant Society represents a society with Strong Roots, Fulfilling Lives, and Strong Foundations. This first theme is vital to achieving the Vision and it acts as a strong foundation for economic prosperity, developing KSA cities to offer high quality of living, and achieve environmental sustainability. **The Smart Building Research Center (SBRC)** works under the overarching framework of the first theme and aims to offer scientific and practical solutions to the pressing problem of "Climate Change" in the environmental conditions of our time, in the urbanization of future cities and communities, and in the building construction methods and possibilities. The contribution of SBRC will fill a significant gap in the scientific discourse of this area in KSA and will draw the center's main goal and objectives, as well as the formation of its structure.

The Smart Buildings Research Center also houses the Environmental Design of Buildings Lab **(EDoB Lab.)**; the vision of this lab is: "EDoB lab aims at establishing a high quality research related to the built environment that can lead the intelligence of the building industry to meet the Saudi Vision 2030" While its mission is "To facilitate the early stages of design for buildings through providing scale modelling assessment for different design ideas. This achieves the required environmental analysis of buildings to cover the department's students, faculty and researchers activities. In addition, this is to be highly utilized as part of the Architectural Consultation Unit." In terms of Research Grants, many faculty are working on internal grants. Dr. Mady Mohamed (with a group of CoAD faculty) won an external research grant worth 164,000 SR in 2017 from King Abdel-Aziz City for Science and Technology (KACST) for his research "Investigating the adaptability of the traditional building techniques in Jeddah's new residential buildings." It is clear from these samples of research that the department is concerned with investigating topics that aim to enhance and sustain the local environment in Jeddah and Saudi Arabia. Moreover, his research proposal (with a group of Effat faculty) titled "Green Assessment System for Saudi Cities and its Implications on quality of life" applied on the Social Call of the RDO – MoE, has been shortlisted in the first phase.

Another example of an active researchers in the Architecture Program is Dr. Khaled Elsawy**.** He is one of the highly cited researchers who has valuable research contributions in the Structural Engineering field. Also, Dr Mohamed Kashef is one of the highly cited and lead researchers. He has valuable research contribution in the area of urban design.

Many members of the Architecture Program participate in and attend conferences. The Chair of the Department Dr. Khloud Moumani and some other faculty members are regularly participating in international conferences, juries and workshops. Some of them visited foreign universities and have developed long term academic exchange programs, like the case with the University of Miami, Kent state University, and Paris Malaquais, which have developed into formal partnerships.

A complete report about the intellectual contributions and the research areas covered by the faculty of the Architecture Program at Effat University in the last five years are available in the semester reports of the Architecture Program and the Research and Consultancy Institute. Numbers show that successes of the establishment of research governance and framework have been demonstrated by the continuous growth of research and scholarly activities, in terms

of quantity and quality. The number of total publications (journals, proceedings, books or book chapters) has been increasing as it was only 4 in 2012-2013 and became 24 in 2016-2017 (11 in Fall 2018 "We still do not have the final output for Spring 2019" 2018-2019). The quality of research has also been on the rise, which is reflected in the increase of publications that are peer reviewed or in indexed journals. (Out of the 11 publications in Fall 2018, 2 papers are ISI indexed while 10 out of the 11 are SCOPUS indexed).

One of the major undertakings of the Architecture Program to enhance research and scholarship in the academic year 2016-2017 was expanding the **Annual Architectural Exhibition Memaryat** to become an annual international conference. The goal of this big step is to make this annual conference as a platform for researchers to help the internal academic community of the Architecture Program engage with the wider community around it, nationally, regionally and internationally, to become updated with the latest trends of research in the Architectural profession. The **1st Memaryat International Conference** titled "***Architecture of the Future: Challenges and Visions***", was held on 18th and 19th of April 2017 and aimed at addressing challenges, visions, and prospects of built up environments in the future. It invited futurists to identify new problematic and architectural rupture, tension and erosions in order to plot a new future direction for architectural built environments. Out of the 94 papers received 44 were accepted and presented in the conference. The conference was honored by very important keynote speakers. These included Professor Mahjoub Elnimeiri from Illinois Institute of Technology, Chicago. The Conference also featured another prestigious Keynote Speaker, Professor Robert W. Marans. Professor Robert W. Marans is a research professor emeritus at the Institute for Social Research and Professor Emeritus of Architecture and Urban Planning in the Taubman College of Architecture and Urban Planning at the University of Michigan.

The 2nd Meymaryat International Conference titled "***Architecture and Urban Resiliency***", was held on 18th and 19th of April 2018 at Effat University. The conference focused on the exploration of the multifaceted paradigms of the built-up resiliency which are complex in nature and involve multiple-terms effects. The conference revolved around two central themes that constituted focal points for participants to initiate networking, workshops, roundtable discussions and inspirational presentations. These two themes included Resilient Buildings and Structures: Challenges and Solutions, and Resilient Cities: Challenges and Solutions.

The conference was honored by very important keynote speakers. These included **Professor Hisham Elkadi**, who currently holds the position of the Dean of School of the Built Environment at the University of Salford in the United Kingdom, a very successful and highly ranked school within the discipline. In the time he has been at Salford, Professor Elkadi demonstrated a capacity for strong and strategic leadership, relationship building and creating and implementing a model for Smart Urban Futures. He has contributed to regeneration of a number of cities including Geelong, Australia, Rome, Belfast, Salford and Manchester. His contribution to the conference was significant.

The second Keynote Speaker, **Professor Ahmed Rashed,** is the former head of the Architecture Department at the British University in Egypt, and the founding director of the Centre of Sustainability and Future Studies (CSFS). His profession is Architecture and Urban Planning/Design.

The 3rd Memaryat International Conference titled "***Architecture and Urban Safety and Wellbeing***", was held on 24th and 25th of March 2019 at Effat University. The conference examined the formation and presentation of knowledge as well as the ethical considerations and potential risks, developing solutions, expertise and discussions with respect to important future development concepts: Architecture and Urban Safety and Wellbeing. Keeping up with technologies to adapt cities, buildings, and structures for Safety and Wellbeing challenges was the leading idea-motive of the conference. The stated objective points to the necessity of a multidisciplinary approach to this matter, identification and establishment of relationships between issues of technological development, environmental protection, and social change. Consequently, the conference program and research were based on the knowledge of several academic disciplines: engineering and technical sciences, cognitive sciences, humanities and social sciences. The

conference was honored by very important keynote speakers. These included:

Prof. Mark Gillem, who is an academic expert in architecture and urban planning, especially related to reinvigorating postindustrial cities and brownfields, was the First Keynote Speaker. At the University of Oregon, Mark holds a joint appointment within the departments of architecture and landscape architecture where he teaches sustainable urbanism, which is an ecological approach to architectural and landscape design that balances social and environmental needs. He is the director of the PhD program, the urban design lab, and the International Association for the Study of Traditional Environments.

The Second Keynote Speaker, **Arch. Ali Shuaibi**. is a Saudi Arabian architect and planner, and the co-founder of Beeah Planners, Architects and Engineers, based in Riyadh, with projects in Saudi Arabia, Oman, Yemen, Pakistan and Djibouti. Mr. Shuaibi teaches design at King Saud University, and is co-editor of the Urban Heritage Encyclopaedia. Several of his projects have received national and international awards, including the Al-Kindi Plaza at Hayy Assafarat, the diplomatic quarter in Riyadh, which received an Aga Khan Award for Architecture in 1989 and the Architectural Project Award of the Organization of Arab Towns in 1990. With Beeah, he is currently at work on the National Museum in Riyadh, the Institute of Public Administration in Jeddah, and the Embassy of Saudi Arabia in Tunis. Mr. Shuaibi was a member of the 1992 Aga Khan Award for Architecture Master Jury and the 1995 Award Steering Committee.

The Third Keynote Speaker, **Arch. Atef Alshehri,** is an architect, consultant and urbanist. His practice and research agenda focused on the cultural and urban history of cities in the MENA region. His current research addresses the confluence of urban history, heritage and development of cities in the Arabian Peninsula. He is the recipient of several research awards, such as the Fulbright fellowship at the University of California-Berkeley and the award of the International Islamic Manuscripts Association (TIMA), of Cambridge, UK. His professional experience covers a wide array of strategic and cultural development projects in Saudi Arabia and GCC region in collaboration with leading international firms in the field. Atef studied architecture at King Fahd University of Petroleum and Minerals, and holds a Master of Architecture degree with Honors from Washington University in St. Louis.

The following pictures show some of the activities of the **3rd Memaryat International Conference.**

It is expected that the future Meymaryat International Conference will continue to feature prominent speakers of higher caliber as the ones described above to enrich the experience of the academic life of faculty and students at the Architecture Program at Effat University. This very well supports the new directions of the institution, the college and the program as the new strategic plan of 2017-2022 gives more emphasis on producing meaningful research to help the university and its faculty move into the next stage of their research development by producing further quality research and thus support the development of a thriving economy as specified in the Saudi Vision 2030.

Figure (4) Different Shots from the 3rd MIC

The undergraduate students of the Architecture Program are also encouraged to be involved in **quality research projects** besides their capstone projects which they conduct with the support of faculty members and which can lead to ***the publication of undergraduate papers, conference papers or published papers, they are also encouraged to share in the University research competition forums for the undergraduate students through the RCI annually***. (These are two examples of undergraduate collaboration with faculty in publications)

1. Aida Nayer, Ola Shaikha, StormWater Management: Jeddah Wadi's potentials, 2st International Conference on Urban Planning – ICUP 2018, Proceedings ISBN 978-86-88601-36-8, 2018
2. Mohamed, M. Badokhn, Deema. Enhancing the Energy performance for Youth Hub and Students Center, a poster presented at Saudi Arabia Smart Grid Conference, Hilton Jeddah, 12-14 Dec. 2017.

Part of the university support to the Architecture program is the special budget that has been assigned for the learning resources for the Architecture program to empower the learning environment through outstanding information access and collections. The architecture department has also initiated the idea of holding an **Architectural Book Fair** to encourage the students to build up their own book collection to promote their academic experience. The first Architectural Book Fair was launched in Fall 2016, and is held every semester.

The ARCH Program also encourages and intensively supports students to contribute in national and international competitions. In the academic year 2017-2018 and 2018 - 2019, many students participated in different competitions and some of them won. Some examples of the submitted architectural competition are

applying for a design competition (African School Project – Banga, Malawi) with three students (Noran Kalkatawi, Ahad Khalil, and Waad Ali) with Dr. Mady Mohamed and applying for the World Architecture Award (One of the best five students' projects all over the world) three students (Omnia Aljehani, Maghfera Alsamman, Samaher Qari) under the supervision of Dr. Mady Mohamed – instructor and coordinator of Studio-8 – Fall 2018. Also, many students presented research papers in national and international conferences.

Students are encouraged to participate in national and international design competitions and studio projects. Some recent examples of the participations, awards and recognitions won by the Architecture students are as follows:

- A team of four members, **Tala Fagera, Omima AlNaami, Ajwaa AlHarbi, and Raheem Sweed,** won the second position in the architectural design award for 2017 of the DecoFair Annual Competition. The award is judged by industry experts including leading international architects, interior designers, and real estate developers. Talal Samarkandi, manager of the competition, said: "We set up awards in three categories: the first one is the furnishing award in which every furnishing designer can participate and compete, the second award is for interior designs, where the scope is about any commercial project that has a space of more than 150 square meters, and the last one is the architectural design award, which aims at highlighting new creative ideas to solve the housing problem". The title of the last award is "Easy housing" and at the end of the day many excellent projects were displayed that could be adopted by the Ministry of Housing.
- The Architecture Department also encourage students to compete on the international level. Since Spring 2016, our students started to participate in international competitions **RIBA Presidents Medals Student Award.** In the period of (Fall 2017- Fall 2018) many students participated, for example, **Sara Bakhsh & Lujain Al-Hibshi** participated with their Capstone projects**, Renad Ba-AbdAllah** with her Capstone thesis**,** and **Sara Alsaffar** with her Studio 4 project.
- Two teams composed of **Shahad Ouyuni & Haneen AlMojaled,** and **Weam Kufia & Zahia AlRaddadi** participated at Rifaat Ghadergi International Competition 2018: Baghdad Design Center.
- Master students are always encouraged to participate in research activities and to submit to Scopus journals and national and international conferences. In one of the courses (MSUD 362) taught and supervised by Dr. Haitham Hussain two students, Hatoon Jamjoom and Ghadeer Alawy, have submitted and published a research paper in a Scopus indexed journal. Two other students, Zeina Baydoun and Sema Refaie have presented two research papers in the fifth international conference of Heritage Conservation and Site Management, and their papers will be published this year (2018-2019). Rawan Shawesh has published a paper in MIC 2019 with the title of "Outdoor Thermal Comfort" and currently working on another paper to submit it to the international journal of "Architectural Science Review" with the title of "Assessment of outdoor Thermal Comfort in the Hot Arid Region".

Community service activities by faculty are also encouraged and recognized to enrich the academic community at Effat Architecture Program. The annual evaluation of faculty members has one section of the evaluation dedicated to community service. Community service activities, which are also reported through departmental Semester Activities and Quality Report (SAQR), are most of the time coordinated with the Management of Communications and Public Relations (MoC&PR) and Executive Education and Community Service Institute (EECSI). Each year, faculty members fill out and submit a portfolio of achievements that lists the faculty member's contributions to the areas of teaching, research and community& university services. The Annual Faculty Portfolio is part of the performance evaluation process. Also, contributions to the community assume 15% of the total required for promotion of professorial rank faculty members. The Semester Activities and Quality Report produced by the Architecture Program records the activities undertaken by its faculty which are either for serving the university like serving on governing bodies, committees, task forces, university volunteer work or they are external community service activities like providing training to the outside community, sharing in community projects and community initiatives, etc.

Examples of faculty members from the Architecture Department at Effat University who are active in community service include for example Dr. Mohamed Fekry, who did so many services rendered to the Community as listed below:

- Appointed as a guest Lecturer in other Saudi Universities:

Islamic Architecture Department, UQU, Apr. 2018

- Participating as an evaluator for Graduation projects in other Saudi Universities:

King Saud University, Spring 2018

- Reviewer for academic researches and research projects for other Saudi Universities:

UQU

Taif University

- Participating in Local and International Conferences:

2nd International Conference on Islamic Heritage2018, Wessex Institute of Technology, Session Chair

2nd Memaryat International Conference MIC2018: Architecture and Urban Resiliency, Effat University, Co-Chair of Scientific Committee & Session Chair

- Reviewer for International Journals:

International Journal of Learning, Teaching and Educational Research

International Journal of Sustainable Development & Planning

Global Association of Research

- Member of the executive committee of Prince Khalid Al-Faisal Chair for Upgrading Informal Areas in Makkah Region.
- Member of the Scientific Advisory Committee of 2nd International Conference on Islamic Heritage Architecture and Art, WIT, April 2018
- Co-investigator in research projects concerned with community service:

The role of legislations in upgrading urban environment of slums areas in Arab communities, Research project supported by KAFCUIA

Re-use of Historical Buildings In the Holy city of Makkah, Research project supported by the Research Institute, UQU

Investigating the adaptability of the traditional building techniques in Jeddah's new residential buildings, Funded by KACST

- Preparing & fostering of memorandums of cooperation between Effat University and local community Organizations:

MoU between Effat University and Jeddah Chamber of Commerce

MoU between Effat University and Saudi Arabia Society for Culture & Arts (SASCA)

- Participating in Dar AL-Ulom initiative International Competition
- Collaboration with SASCA in preparation an initiative in "كيف تكون قدوة" initiative and it is titled: 1001 pictures of Makkah
- Collaboration with SASCA in preparing and activating an initiative to enhance the visual image of Harameen Road by a designation from HRH Prince Khaled Al-Faisal
- Supervising graduate students proposing community projects

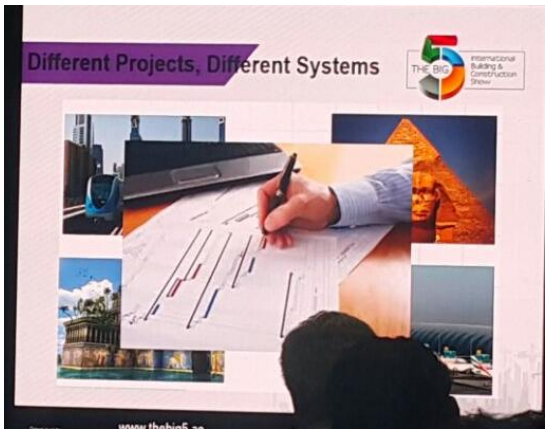
Bus Stop Proposal of Improvement Project by Raneem Jalal (SPRING18)

Madenati Platform: Public Participation-Based Model by Hatoon Jamjoom (SPRING18)

- Coordination for the signing ceremony with the Society for Culture & Arts (SASCA)

Students Activities:

- In Spring 2018, integrated process in management is explored by inviting PM for EU Campus projects to provide for experience from onsite visit to the construction project of the faculty residence and the finishing phase for the student affairs building.
- Lecture by lead project Manager, Faisal Al Mohammady is presented on the demonstration of the king Abdallah Sports City Project life cycle, in Effat Hall attendees from architecture program and specifically enrolled students in ARCH 556 Project Management.



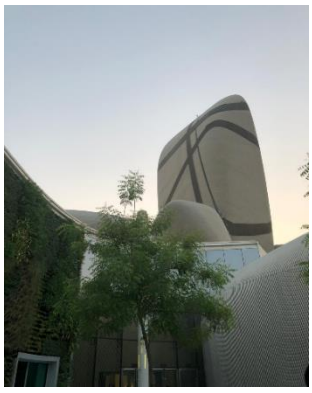
Students are encouraged to attend Big 5 Saudi Arabia, Jeddah, March 2018, the largest construction exhibition and gathering for different specialties in the field from international entities, Gulf Countries and Saudi Arabia. They also attend workshops and lectures related to the aspects of management, presented by professionals. Faculty members presented two talks entitled:
First, Speaker: Aida Nayer, Ph.D. Associate Prof. Architecture Program, Effat University.
Topic: Contract risk management: EPC Fidic contracts as a case study
Another talk by Dr. Mohamed Al Surf, Ph. D., Assistant Prof. Architecture Program, Effat University. Topic: Sustainable Housing in Saudi Arabia

- Site trips are organized to help students explore the different trends in project management relevant to project site activities and progress performance in addition to the organization of working forces starting from client representatives, consultants and project management team as we well as contractors for different construction activities.
- Collective Visit with 14 students of this course was arranged to visit ABUDHABI International Airport terminal visit, as well as PM on Effat Construction sites, for the purpose to be introduced to large-scale construction projects in the GCC and competitive teams leading BIM industry.
- The demonstration involved the CCC Team in the site office and tour visit incorporated integrated BIM systems within the Project life cycle as well as organization of engineering team members involved.
- Students were encouraged to attend and report on BIG 5 – UAE November, project management presentations related to the trends applied in pm systems.

A collective visit with 14 students from this course was arranged to visit Riyadh Metro Project- for the purpose to be introduced to large-scale construction projects in the Kingdom and competitive teams led by Riyadh Development Authority.

- The demonstration involved the Financial District Main Station designed and developed by ZAHA Hadid, The visit incorporated integrated systems within the Project life cycle as well as organization of engineering team members involved.
- In Fall 2018, a collective Visit between Four Sections of this course was arranged and hosted by ARAMCO-Saudi Arabia for the purpose to be introduced to large scale construction projects in the Kingdom and competitive teams lead by Architect FAWZIA, Head of Architecture Department, Dahran.

The demonstration involved the construction strategies and integrated systems such as Building Information Modeling within the Project life cycle as well as organization of engineering team members involved.



In Spring 2019, Extended educational activities were organized in Riyadh by major consultants in the field of Architecture and Construction Management.
Presentations by Professionals Mr. Ernie, Facilities Management Team PM
Effat Construction Site Visit. All four sections were having safety inductions and instruction on site progressive activities and project team.

Collective Visit between Four Sections of this course was arranged to explore Riyadh-Saudi Arabia for the purpose to introduce the students to large scale construction projects in the Kingdom and competitive market.

Construction Sites Visited:
King Khaled International Airport Terminal 3 and 4 (GACA) and Riyadh Metro (ADA)
The demonstration involved the construction strategies and integrated systems within the Project life cycle as well as organization of engineering team members involved.



The ARCH Program also builds strong relationships with **professional partners** for recommendation to internship placements of its students and also involves these partners in reviewing and setting improvement plans for the Program, through the Program Advisory Committee (PAC). The PAC consists of people recognized in society for their contribution in academia and industry and meetings are held with them at least once a year.

Table (12) Program Advisory Committee (Architecture Department)

	Name	Organization	Affiliation
External Members	Dr. Nabeel Kushak http://nabeelkoshak.com/main/	UQU	Vice President of Business & Innovation
		Makkah Techno-valley company	Vice-president
	Dr. Bassam Ghulman https://uqu.edu.sa/baghulman http://www.saudieng.sa/English/AboutSCE/Pages/BoardOfDirectors.aspx?SessionId=5	Saudi Council of Engineers	Vice-president
		Al-Harameen high-speed rail	General Manager
	Arch. Loai Hakeem	Hakeem Consultants	
Internal Members	Dr. Mervat El-Shafie	College of Architecture & Design	Dean
	Dr. Kholoud Moumani	Architecture Department	Chair
	Dr. Mohammed Fekry	Architecture Department	Assoc. Prof.

The ARCH Program maintains good relationships with industry through the Internship program, students' events, and competitions, PAC meetings, inviting guest speakers from the industry. Moreover, external members from the community (industry and local universities) are invited by the instructors each semester to co-lecture in their class, to judge projects, etc. and students from other classes and majors are invited to attend. Usually, the industry invitees make suggestions and proposals to enrich the students' educational experience, by adding the practical implementations that serve the community and industry. Indeed, involving the people from industry and other universities in the Program events and projects provides good exposure for the Program's graduates and gives a

chance to enlarge their network. Communication is not restricted solely to industry and universities but also to the high schools in the region. High school students are welcome to come to the university and can seek help and support from the ARCH faculty. Also, the ARCH Department invites high school students, their families, and friends to the Open House events organized by Effat University.

The ARCH students are also very active in serving the community inside and outside Effat University. In fact, the University requires its students to complete a community service component as part of fulfilling their value points' requirements as part of the Effat Ambassador Program and/or their extra-curricular activities. Therefore, many students volunteer in the organization and hosting of events at the university and departmental levels such as Memaryat Annual Exhibition, Career Day, and Open Houses. This is in addition to other volunteer work like visiting charitable foundations and contributing to sustainable projects on campus or outside. ARCH students have also participated in internal and national competitions like the MTV competition. Furthermore, alumnae students are always welcome to visit the Department and speak to students about their experiences. For instance, one of the ARCH program alumnae, Maisan Mamoon, was invited as a guest speaker in the ARCH annual exhibition to talk about her professional experience after graduation.

Also, the University presents annually at the graduation ceremony the Effat University Award for Excellence in Community Service to encourage all Effat University faculty members to be active in this area.

All in all, the academic community at the Architecture Program of Effat University gives great attention to developing the intellectual contributions of its faculty and students. It encourages them to contribute to the development of their communities through community service and civic engagement activities. It also gears all its teaching to empowering women as future innovative and leading architects. This is to support the overall mission of the program, college, university, and the country at large.

B. Architectural Education and Students

Effat University's Vision and Mission of the fourth strategic plan (2017-2022) are focused on preparing inspirational and effective leaders of international quality who contribute to national and global progress. This is achieved by providing them with innovative education, which is mainly shaped by the core ethical values of the university (IQRA Values) and the legacy of its founder (Queen Effat), and thus creating a culture of broad inquiry, intellectual engagement, and valuable societal impact.

Having set its mission to achieve this aspiration, the University designed its goals for the strategic plan 2017-2022 accordingly. The strategic goal pertinent to Student Administration and Support Services clearly demands "To be at the forefront in attracting and retaining a diverse body of students and continue graduating agents of change through providing a transformative learning experience designed to help graduate entrepreneurs create future opportunities and be ambassadors of Queen Effat Legacy." That is, to recruit the required number of students at the required level and retain them, in addition to cultivating excellence through curricular as well as extra and co-curricular activities, which ultimately reflects in the quality of students and graduates, who become the agents of positive change in their communities. The Architecture Program upholds a mission that consistently support the University's mission (see section I.1.1. above) in "preparing professional leadership and future qualified architects and urban designers with excellent architectural education who can enrich the profession through research and practice, can contribute to national and international progress of architecture and share in building the future of their country by interweaving Core Values into an innovative and comprehensive architecture education."

The Architecture Program (ARCH) is the largest program in Effat University (EU) by size of its faculty and students. It was the first of its kind in offering Architecture to women when it was first established in 2005. It opened the door for developing other architecture programs for women in the kingdom. The overall response to the Architecture Program in the Saudi society was promising and it showed great potential in sustaining its growth and maintaining reasonable numbers of students and maintaining an ability of about 26% increase every academic year, which was fulfilling the target of a total capacity of the ARCH program 650 students by Fall 2014. The program proved to provide strong applied and interdisciplinary education to produce creative, highly disciplined, and critical thinkers

capable of leading the contemporary architectural environments of their communities with strong understanding of both local and international market needs.

The Architecture Program at Effat College began in the academic year 2005-2006 with an enrolment of 10 students, 9 of them were Saudi. In the academic year 2006 - 2007, 14 students enrolled in the program. This steady increase in the number of students was maintained until 2012-2013 when greater numbers of students were enrolled following the introduction of the governmental scholarships for Saudi students entering private universities under the King Abdullah Scholarship Program. The growth of the students' number in Fall 2013 required a good attention from the ARCH Department management. An assessment plan and transitional strategy were discussed and implemented. As a result, an aggressive recruitment plan was followed and a major facilities improvement plan was set to action. The Architecture Program has received a great support from the ECoAD and EU during the academic years 2013-2014 and 2014-2015 to continue providing its students the same quality of education.

In the academic year 2015-2016, when the Saudi scholarship program was limited to only continuing students, the Architecture Program witnessed a decrease in the number of entrants. However, the total number of students continues to be in the good range of similar programs all over the world, however, the program is working on achieving its capacity as planned. The below chart shows the growth of ARCH Program student population from Spring 2013 till Spring 2019

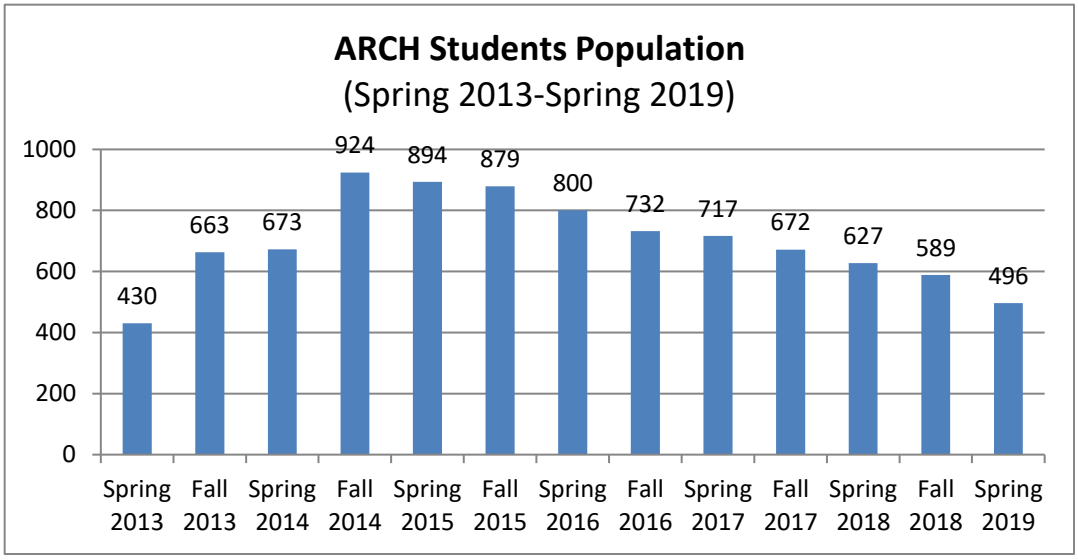


Figure (5) ARCH Program Student Population from Spring 2013- Spring 2019.

When the Architecture Program started in 2005, it was a 148 credits four-year program. In 2009, the new 171 credits Architecture curriculum was introduced after being approved by the Ministry of Education (MoE) and National Commission for Academic Accreditation and Assessment (NCAAA). A national reviewer (King Fahd University for Petroleum and Minerals (KFUPM)) and international reviewer (University of Miami, School of Architecture) also supported the new curriculum with their review reports. MoE accepted the updated curriculum with no comment. The goal of the updated program was to help graduate professional architects with the all the required skills and capabilities of a leading architect. This is done not only through the architectural courses, but also through the General Education Program, the extra-curricular and co-curricular program (Effat Ambassador Program) to help give the students a well-rounded learning experience to develop them as ethical, sociable and professional individuals who can handle the challenges of the world ahead of them. In Fall 2018, the program has been updated by revising the pre-requisites and credit hours of a number of courses (Please check the updated plan in section 3.for more details), and the new plan was approved by the Ministry of Education and its implementation started in the same semester. This new plan, which includes 10 design studios, will improve student experience and will be achieved through the delivery of a streamlined

portfolio of design studios. In addition, some pre-requisite courses have been added that are enabling, consistent, and transparent to all students. The updated architecture program would enable a more agile program structure with an increased potential for interdisciplinary, including the possible integration of the program courses and other kinds of innovative learning activities. That aims to analyze current offerings to establish and validate a set of indicators that will help the transition to a more responsive, flexible and efficient taught portfolio for the program.

Updating the pre-requisite matches much more with the necessary requirements of different courses according to the CLOS. Also, the update included changing the number of credits for ARCH 571 to become ARCH 471 Architecture Design Studio -9, and ARCH 572 to become ARCH 472 Architecture Design Studio-10, with 5 credit hours for each course. This change will allow students to start the design process in the design studio -9 after completing the studies they continue on developing the design of the project in the following term with a solid base in the design studio -10

Effat University is a multicultural environment with students from every continent. They engage collaboratively or individually in different activities. Thus, it is important in such a multi-faceted community that all students recognize and respect not only their rights and responsibilities but also those of others in the community. All Effat University students, including the students of the Architecture Program, must follow the Effat University Code of Ethical Conduct to assist them in identifying and resolving ethical matters that might arise in the course of their association with Effat University and their Architecture Program. The Effat University Code of Ethical Conduct 'Tarbawyyat' (تربويات) is a guiding rather than prescriptive manual of the general principles governing human interaction. 'Tarbawyyat' (تربويات) is the name of the pillars that make up the Effat University Code of Ethical Conduct. Tarbawyyat Effat is derived from the Arabic word for 'educate.' Effat University adopted the following eight fundamental pillars as seen in the following figure:

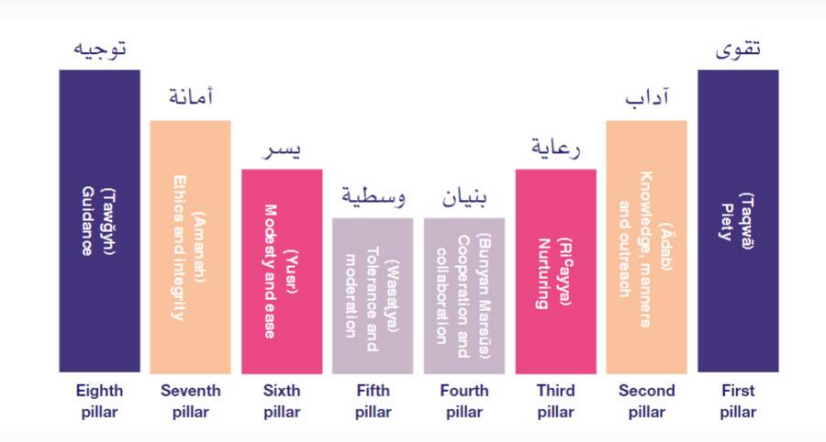


Figure (6) Eight Fundamental Pillars of Tarbawyyat Effat

The Code is established in accordance with other policies that Effat University and the Architecture Program has in place. Breaching the Code might result in disciplinary action. All students are oriented about the codes as soon as they register for their major, and they are continually reminded of it through their departmental student meetings and regular meetings with Student Affairs as well as their curricular and co-curricular programs.

In the curricular program, students get to learn through the design studio courses the main skills of architectural design. Students are exposed to bothtraditional and technological educational methods. However, a great part of their education is depending on developing computer labs and architecture software in order to support students' development. Therefore, in 2016-2017, the Architecture Program worked on another cycle of development and review of its curriculum to enhance its Design Studio courses and other important courses to ensure giving its students the most updated and quality education as promised in the department's and program's mission.

The program review undertaken in 2016-2017 was reviewed by a national reviewer, King Fahd University for Petroleum and Minerals (KFUPM. The national reviewer helped to develop the program by benchmarking it with 14 other prestigious architecture programs all over the world. These included Cornell University, Pratt School,

Syracuse University, Southern California Institute of Architecture and KFUPM itself. The curriculum review included minor changes to bring the Effat Architecture Program closer to these benchmarked programs in terms of content, quality, and modes of delivery. The minor changes were made to the Program to match with internationally architecture education and thus enhance Effat students' education to become at bar with their international colleagues. In addition, the program was assessed against the requirements of the Saudi national accrediting body, the National Center for Academic Assessment and Accreditation (NCAAA). King Fahd University also checked the program against the requirements of the National Architectural Accrediting Board (NAAB). 14 of the benchmarking programs included 13 top NAAB accredited programs from the USA, and one program form Saudi Arabia, KFUPM, which is also accredited by NCAAA since 2014. The 13 international programs were selected from the top 20 undergraduate Architecture Programs in 2015 and 2016, as reported by Design Intelligence (DI) of USA. It is important also to note that Effat Architecture Program has acquired full national accreditation since 2010 and received full re-accreditation in 2017 for another seven years.

The review of the architecture program was also conducted to get it prepared for achieving Substantial Equivalency from NAAB. In 2017-2018, the second visit of the NAAB visiting team was conducted, and valuable feedback was received from the external reviewers to enhance specific aspects of the delivery of the program, which the Architecture Program worked on improving to enhance the students' learning experience. Several meetings were held immediately after we received the NAAB visit two report. These included meetings with the courses' coordinators, and then other meetings with all the course team for reading carefully the NAAB visit report and discussing exactly what is needed to be updated in each course. The ARCH program faculty worked with all the units to provide clear evidences to make sure that it is all covered, thought the update of the course content or assignments, collaboration to enhance students' skills, then we summarized all of these action in a detailed action plan. Steps were in action in Fall 2018, then further enhanced and developed more in Spring 2019.

For a detailed report on the progress made regarding this since last site visit, please refer to PART THREE below.

The Architectural students also benefit from the **Effat Ambassador Program (EAP),** which is a co-curricular program that is meant to be a student development program that allows every student to fulfill the University's core values of IQRA through the demonstration of the four Effat University Graduate Characteristics. The following are the EAP learning objectives mapped to the IQRA values and corresponding to Effat Graduate Characteristics.

Table (13) Effat Ambassador EAP Mapped with IQRA Values

Graduate Characteristics		
Ibhath U*ndertake life-long research*	Itqan: Excellence and Professional (اتقان).	Effat graduates contribute to organizations through the practice of excellence and professionalism
Qiyam *Ethical social and educational values*	Ihsan: High Ethical Values (احسان).	Effat graduates practice and promote high ethical values in both professional and personal environments.
Riyada *Responsible and creative leadership*	Stewardship (الراعية).	Effat graduates make positive and responsible change in both professional and non-professional organizations, and in their own lives.
At-tawasul *Effective Communication and reaching out to others.*	Ambassador Potential (سفيره).	Effat graduates are the ambassadors of Queen Effat's through the responsible representation of country and culture, both locally and globally.

The following are the learning outcomes for the Effat Ambassador Program that all Effat University Students, including Architecture Program, must complete:

Table (14) Learning Outcomes of Effat Ambassador Program (EAP)

IQRA Values	Graduate characteristics	EAP intended learning outcomes
Ibhath Undertake lifelong research	Itqan: Excellence and professionalism (المتقنة)	I1. Search effectively for information from different disciplines I2. Demonstrate independent and lifelong learning skills I3. Solve problems in a creative and/or innovative way
Qiyam Ethical, social and educational values	Ihsan: High ethical values (المحسنة)	Q1. Practice integrity and ethical values Q2. Demonstrate an understanding of, and respect for, others' culture and values Q3. Demonstrate pride in cultural heritage and tradition Q4. Commit to health and wellbeing for oneself, one's community and the world
Riyada Responsible and creative leadership	Stewardship (الراعية)	R1. Demonstrate responsible and reflective leadership skills R2. Demonstrate emotional intelligence when facing complex situations R3. Demonstrate enthusiasm, confidence and the desire to excel R4. Demonstrate citizenship skills
At-tawasul Effective communication and reaching out to others	Ambassador potential (السفيرة)	A1. Cooperate and work in teams from different disciplines and backgrounds A2. Communicate effectively in written, oral and visual forms A3. Reach out effectively to others A4. Engage in activities to serve the community A5. Demonstrate an awareness of global issues and the challenges facing the world

To pass the EAP, students must complete a total of 99 hours in their first four years of their study, produce a student portfolio and undergo assessments which contain evidence of, and the student's reflection on, how she achieved the graduate characteristics and earned the four-level Effat Ambassador's passport.

The breakdown of the 99 hours of study required is listed below, based on the topic areas that all Effat students, including Architectural students, need to cover:

Self-Discovery and Positive Personality (12 hours)

Students take 12 hours in the Self Discovery and Positive Personality component. This component is an exploration of skills including goal setting, and stress and time management alongside deeper questions of spirituality, self-reflection and personal improvement.

Research and Lifelong Learning (14 hours)

Students must take 14 hours in this segment. The aim is to instill in them one of IQRA's most important values: the desire for continuous learning, supported by the skill to seek information using a diverse range of sources. The course covers the techniques needed to identify sources of information, evaluating that information, and drawing meaningful conclusions from the information. Students also learn how to create their own learning plan, establish a research methodology and implement it.

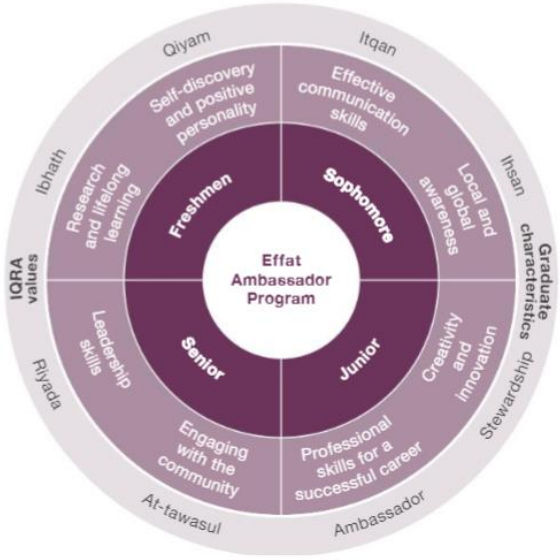


Figure (7) Components of Effat Ambassador Program (EAP)

Effective Communication Skills (12 hours)

Students take 12 hours in effective communication and cooperative skills development. This component is a dynamic exploration of interpersonal communication skills. The students actively acquire communication skills through an ethical cooperative process that includes methods of communication, effective communication, and professional and academic communication

Local and Global Awareness (12 hours)

Students are required to take 12 hours to explore their preconceptions about other cultures, as well as create awareness of their cultural heritage, and how it affects their world-views, values and assumptions. They explore aspects of cultural values and differences, which may affect cross-cultural interactions. They analyze the dynamic changes taking place in the region and around the world, to better develop their sense of interconnectedness and global responsibility. They also extensively explore issues of social and environmental concern alongside the importance of religion, personal values and culture in creating solutions for a more sustainable future.

Creativity and Innovation (12 hours)

Students are required to take 12 hours in creative and innovative thinking that will enable them to apply their skills to their studies. Students produce an 'Innovative Solution' to an issue of their choice and create a plan for its implementation and its intellectual property protection.

Professional Skills for a Successful Career (12 hours)

Students are required to take 12 hours in professional competencies. This component help them develop their workplace skills through a series of practical 'hands-on' sessions covering five major professional areas: job interviews, career management, people skills, change management and ethical and legal responsibilities.

Leadership Skills (12 hours)

Students are required to take 12 hours to prepare them for leadership positions both on campus and in their community. Students learn how to become effective leaders, solve problems and adapt strategically to the situation and input, capitalize on new opportunities, and navigate the ever- changing landscapes of professional and personal life.

Engaging with the Community (13 hours)

Students are required to take 13 hours of community service to address issues related to community building, social responsibility, the use of civic resources, and humanitarian values – such as commitment to social justice and philanthropy. Students are expected to examine the connection between the individual and society through direct

engagement with the community in order to implement Effat core values (IQRA); to exert change and to achieve civic responsibility as future leaders.

Every semester, the Architecture Program along with the Deanship of Student Affairs and its Enhancement Centers Administrative Staff evaluate the students' achievement of the skills acquired by the Architectural students to assess how they are progressing towards the attainment of the Effat Graduate Characteristics.

In addition to the disciplined Effat Ambassador Program, the Architecture Program as well as the Student Life under the Deanship of Student Affairs, offer Architecture students different extra- curricular opportunities to develop themselves and become active in their academic surrounding as well as the external community. These activities include offering social events and sharing in clubs' activities organized by the Student Government, to workshops, lectures, motivational speeches, conferences, and trips. The undergraduate students of the Architecture Program are also encouraged to be involved in **quality research projects**. Besides their capstone projects which they conduct with the support of faculty members and which can lead to ***the publication of undergraduate papers, conference papers or published papers, they are also encouraged to share in the University research competition forums for the undergraduate students through the RCI annually***.

Part of the university support to the Architecture program is the special budget that has been assigned for the learning resources for the Architecture program to empower the learning environment through outstanding information access and collections. The architecture department has also initiated the idea of holding an **Architectural Book Fair** to encourage the students to build up their own book collection to promote their academic experience. The first Architectural Book Fair was launched in Fall 2016, and is held every semester.

The ARCH Program encourages and intensively supports students to contribute in such competitions. In the academic year 2017-2018, many students participated in different competitions and two of them won. In addition, many students presented research papers in national and international conferences.

Students are also encouraged to participate in national and international design competitions and studio projects. Some recent examples of the awards and recognitions won by the students are as follows:

- Team of **Tala Fagera, Omima AlNaami, Ajwaa AlHarbi, and Raheem Sweed** won the second position in the architectural design award for 2017 of the DecoFair Annual Competition. The award is judged by industry experts including leading international architects, interior designers, and real estate developers.
  Talal Samarkandi, manager of the competition, said: "We set up awards in three categories: the first one is the furnishing award in which every furnishing designer can participate and compete, the second award is for interior designs, where the scope is about any commercial project that has a space of more than 150 square meters, and the last one is the architectural design award, which aims at highlighting new creative ideas to solve the housing problem". The title of the last award is "Easy housing" and at the end of the day many excellent projects were displayed that could be adopted by the Ministry of Housing.
- The Architecture department also encourage students to compete on the international level. Since Spring 2016, our students started to participate in international competitions **RIBA Presidents Medals Student Award.** In the period of (Fall 2017- Fall 2018) many students participated, for example, **Sara Bakhsh & Lujain Al-Hibshi** participated with their Capstone projects**, Renad Ba-AbdAllah** with her Capstone thesis**,** and **Sara Alsaffar** with her Studio 4 project.
- Two teams: **Shahad Ouyuni & Haneen AlMojaled**; and **Weam Kufia & Zahia AlRaddadi** participated at Rifaat Ghadergi International Competition 2018: Baghdad Design Center.
- Master students are always encouraged to participate in research activities and to submit to Scopus journals and national and international conferences. In one of the courses (MSUD 362) taught and supervised by Dr. Haitham Hussain two students **Hatoon Jamjoom and Ghadeer Alawy** have submitted and published a research paper in a Scopus indexed journal. Two other students, **Zeina Baydoun and Sema Refaie** have presented two research papers in the fifth international conference of Heritage conservation and site management and will be published during this year.

Community service activities by faculty are also encouraged and recognized to enrich the academic community at Effat Architecture Program. The annual evaluation of faculty members has one section of the evaluation dedicated to community service. Community service activities, which are also reported through departmental Semester Activity and Quality Report (SAQR), are most of the time coordinated with the Management of Communications and Public Relations (MoC&PR) and Executive Education and Community Service Institute (EECSI). Each year, faculty members fill out and submit a portfolio of achievements that lists the faculty member's contributions to the areas of teaching, research and community& university services. The Annual Faculty Portfolio is part of the performance evaluation process. In addition, contributions to the community assume 15% of the total required for promotion of professorial rank faculty members. The Semester Activity and Quality Report produced by the Architecture Program records the activities undertaken by its faculty which are either for serving the university like serving on governing bodies, committees, task forces, university volunteer work or they are external community service activities like providing training to the outside community, sharing in community projects and community initiatives, etc.

Student Life offers clubs covering a wide variety of interests available for students to join or attend. Those clubs combine both University and Academic Clubs under the supervision of the Student Government (SG) President. Leaders and members of clubs in alignment with the SG President have the independence to use their creativity to make the club unique and distinguished. One of the active clubs created by the Architecture students is the Student Green Building Club. Another one that was established Fall 2018 is the Islamic Architecture Circle. It is a circle that discusses thought and practice under the historical umbrella of Islamic Architecture. As a first event, the club organized a sketching competition among the students. Below are some photographs of the event.

Figure (8) Activities of the Islamic Architecture Circle Club

Associations are also available by Departments and Colleges. Students of the Architecture Program have established a chapter for Effat University under the American Institute of Architecture Students (AIAS) since 2016. They organized many activities through this chapter like drawing skills workshops, digital and visualization workshops. In addition, they organized field trips to King Abdullah Economic City, the Mannequin Challenge and Trivia competition.

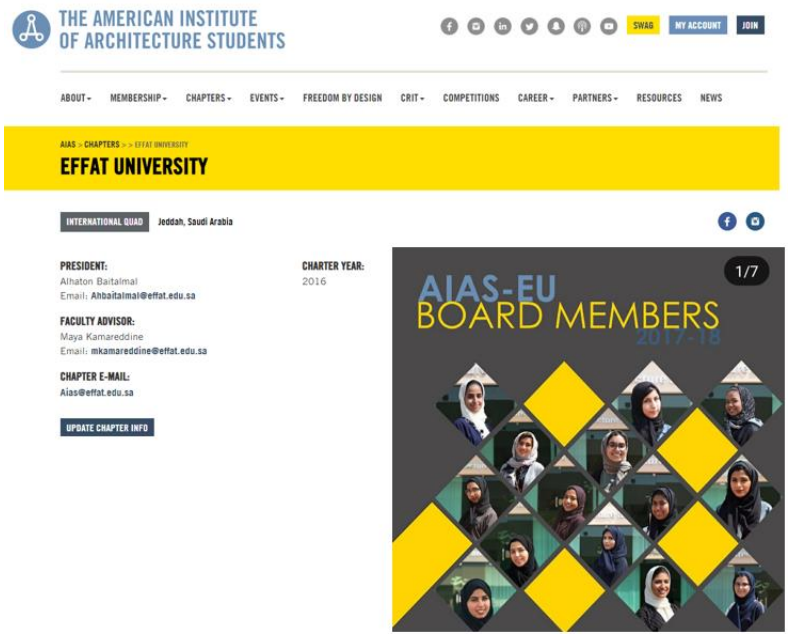


Figure (9) Effat University Chapter-American Institute of Architecture Students

Throughout the 2017-2018, the students of the Architecture Program organized under the supervision of the Chair of the Department, student committee advisor and AIAS-EU chapter advisor many activities, public lectures, trips, and workshops. Below are some details of some of these important activities.

In Fall 2017, the Students Committee organized an Open Day and invited all Architecture students to welcome the new semester. Also, they organized lectures given by Architecture students and alumnae such as a lecture presented by one of the successful Alumnae, Arch. Maysan Mamoun, in which she explained how the students can start their practical life.

Figure (10) Students Committee activities

Under the patronage of HRH Princes Lolowah Al Faisal, the Vice Chair of the Board of Trustees and General Supervisor of Effat University, the Students Committee belonging to the Architecture Program invite all Effat students every year to participate in a photography competition with a different theme every time. In Fall 2017, the fourth photography competition was held under the theme "Colors in Our Life". In Fall 2018, the fifth photography competition was held under the theme "Driving Ethics". The fifth competition was also opened for other female students from all Saudi universities. The winning photos were exhibited in the competition's exhibition.

In Spring 2018, the Students Committee organized many trips. For example, a trip was done to old Jeddah City to understand the heritage of old Jeddah. The trip was supervised by Ms. Hidaya Abbas and Students Committee. Another trip was organized in collaboration with AIAS-EU to attend the Global Tall Building Workshop held in Dubai City. A third trip to Istanbul City was organized to learn about the architecture and history of the city.

Also in Spring 2018, the Students Committee in collaboration with HBRC in Egypt organized a waterfront workshop. Part-1 of the workshop was hosted in Egypt and part-2 was hosted in KSA. The workshops in parts 1 and 2 examined the interchangeable relationship between the waterfront activities and users. A challenge was put forward by re-designing existing locations for waterfronts in various countries with different aspects, related to social conditions, urban criteria, and climatic changes. The following photos are part of these two events.

Extra-Curricular activities are organized in alignment with assessment methods applied by linking theories and concepts learned in class with practices as well as stimulating the students to improve their communication and analytical thinking skills. Some examples are given below:

In Spring 2017, a site visit was planned for the El Haramein Railway project in Rabigh Saudi Railway Authorities. A tour was prepared to allow the students to visit the construction site of the station. In addition, a presentation related to the project management as a FIDIC contract environment was offered. The presentation also highlighted the transition phase towards operation and systems testing and commissioning. A smaller group of students visited the project of Jeddah Economic City, and the construction site of the Kingdom Tower.

In Fall 2017, the architecture students visited the new international airport in Jeddah, which is considered one of the largest airports in the Middle East. The owner representatives from the GACA prepared a tour in the different zones of the project showing the progress in work activities' in accordance with the project design complexity. The Project Manager, Dar Al Handassah, presented a full demonstration of the organization of the project management systems adopted to manage the high quality and security levels required for this typical type of project along with change orders implications in time and cost management.

An extended visit to UAE was organized towards the end of the fall 18 semester where the students explored the construction management, technical complexity and activities progress of the Louvre Museum in terms of the water level in the creek as well as the domed envelope. Dubox Precast concrete factory was the second destination of the architecture students where the CEO of Dubai Municipality demonstrated the fast tracking approach in manufacturing and assembling prefabricated units. The benefit of attending the BIG 5 Dubai exhibition and talks allowed the students to expand their background knowledge regarding Gulf countries.

In spring 2018, a public lecture event was held at Effat Hall to expose the students to a larger scale construction project in the Kingdom, which is King Abdullah Sports City. The lecture is organized by course instructor and active students that organized case based analysis on the largest sports facility in the Kingdom, the lecture entitled: Meet the Senior Project Engineer of the Al Jawhara Stadium, by Engineer Faisal Mohamed, lead engineer, Aramco, in the construction phase of Al Jawhara stadium project.

Students were also encouraged to attend the presentations by construction professionals in Big 5-Jeddah, which is considered one of the most important annual exhibitions for the construction industry professionals, as well as

check the updates in the construction market in terms of materials and companies.

Also, field trips were organized for students in many courses including the Building Construction Course and the Project Management Course to engage students with real construction sites and expose them to more real cases. The main aim of organizing extracurricular activities, including seminars and construction sites' visits related to large-scale projects in the Kingdom and Gulf countries, is to improve the students' management skills as shown in the photos below.

Figure (11) Students Meet Construction Professionals in Big 5-Jeddah

Students of the Architecture program also had the opportunity of using the sports' facilities and training sessions of the university and enjoying playing pool, air hockey, badminton, basketball, handball, jogging, gym exercises and swimming. They had the opportunity of joining a variety of sports classes, including self- defense, swimming (in the half-Olympic-sized pool available at Effat University), yoga, zumba, aerobics, and aqua aerobics classes, to name a few. These classes help students maintain their fitness, which is essential for their future as individuals and as architects.

Effat architectural students, especially those who are challenged academically, also benefit from the services of the Enhancements Centers through the Educational Support Program (ESP), the Center of Excellence for Writing and Speaking (CEWS), the Center for Communication and Rhetoric (CCR), and the Independent Learning Center (ILC). The students also can receive support from professionals through the Student Counseling Service and Effat Clinic, which are provided for free and confidential in order to enhance their physical, emotional and mental wellbeing and health.

All the above curricular, co-curricular and extra-curricular activities and other students' services available to the students at the Architecture Program at Effat University are planned to ensure that students graduating from Effat University are well prepared as holistic individuals personally, ethically, socially, and professionally for the world ahead of them. The program also assesses every batch of graduates to ensure how far its graduates are achieving these qualities.

Success of the Architecture Program shows that it is becoming a major player in the Saudi professional market. **Graduates** from the Effat Architecture Department are sought after to be employed in the local and regional architectural firms. The Architecture Program is proud of its graduates and their professional achievements. For example, the first group of graduates in 2009- 2010 included **Aljohara Al-Saud** who became partner at Henning Larsen Saudi Arabia in 2015 after her successful involvement in the design of the major project of King Abdullah Center in Riyadh, while **Maysan Maoun** has founded her own architecture firm 'Moreyat' in Canada after she completed her master of architecture in Carleton University in 2013 and Post-Professional Master of Architecture in McGill University in 2016. Also, another of the program's graduates, **Mona Flehan**, has completed her Master of Architecture in the Southern California Institute of Architecture in Spring 2014, and currently is still working at the Saudi Aramco since more than 2 years. On the other hand, her colleague **Sondus Ashi** opted for staying for work experience in Hawaii, same as **Dania Zuhiry** who stayed for work in San Francisco after completing their master of architecture in the same institution. **Badia Masoud**, who graduated in 2010 and completed her master degree in 2014, is currently completing her PhD in the Universidad Politécnica de cataloña, Barcelona, Spain. While her colleague **Maryam Abonomai** preferred to start work in Barcelona after she completed her Master of Advanced

Architecture and City Project at the Universidad de Alcalá. Many of the following graduates from the program have completed their Master of Architecture in prestigious international institutions. For example, **Sara Serafi** is doing her PhD in the University College of London after completing her Master of Architecture in 2015 in the same institution. Sara is currently working as an Assistant Heritage Consultant at Atkins, London, UK. **Anwar Basunbul** has completed her Master degree on Sustainable Design from Philadelphia University, USA, and she will start her Ph.D. at the same university in fall 2019. **Mai Mousli** has also completed her M. ARCH in the American University in Beirut, and currently participating in the design of a major residential project near Makkah city. Once the Architecture Program offered the Master in Urban Design program in Fall 2015, three ARCH graduates joined and graduated in Spring 2017. In Fall 2016, five ARCH graduates joined the master program and will complete it in Spring 2018. Many graduates started work in architecture firms after graduation to gain professional experience before seeking graduate studies. For example, **Salwa Samarqandi**, is working at the architecture office of Zuhair Faiz since her graduation in 2014, while **Nouf AlBakri** is working in Kinan and participating in the design of a large size development projects in the north of Jeddah. Also some of the International students opted for staying and work in Jeddah. For example, **Lara Al-Saud** - Jordanian- is working as an Operations Manager at Numou Investment Group, while **Amani Elsaadi**- Lebanese- is working as an architect in the Jeddah Economic Company, participating in the design and construction of the Kingdom Tower, one of the tallest under construction buildings worldwide. **Yasmin Soliman** and **Nadia Goher** –both are Egyptian- are working in Adel Architecture Office, one of the major architecture offices in Jeddah, and the new Effat Campus Plan Development consultant. **Rawan Aldajani** now owns her jewelry firm under her name, **Yara Abdulwhab** started a new position as Architect at HMA Engineering Consultant, **Lojain Kattan** started a new position as marketing officer at UCIC. Architecture offices in other Saudi cities like Riyadh, Dammam, Alkhobar, Makkah, Gazan, and Madinah are also employing some of Architecture Program graduates. The following URL presents a group of 254 of the Architecture Program in Effat University graduates on LinkedIn, https://www.linkedin.com/school/15135194/alumni/?keywords=Architect
Graduates of the Architecture Program at Effat University are the Saudi women pioneers in this career, and they opened the door for many other women to reach out for their dream to become architects. This has also led to opening many architecture schools across the country accordingly. In Dec. 2017, Effat University in collaboration with Saudi Umran Society published a book titled: "**Pioneer Young Saudi Women Architects**". This book is dedicated to Effat graduates, who believed in the vision of Effat University to empower women in Saudi Arabia and offer new programs for study. This book is not intended to specifically talk about architecture education, nor is it proposed that the reader will be fully acquainted with Effat University graduates; rather it is a statement of appreciation for the Saudi pioneer women architects of this generation, who are writing a new page in the history of their nation.

C. Architectural Education and the Regulatory Environment.

Saudi Council of Engineers (SCE) is the body responsible for licensing engineers (and Architects) in Saudi Arabia. SCE aims to promote the engineering profession and do whatever may be necessary to develop and upgrade its standards and those practicing it. All graduates of the Architecture Program automatically register in the Saudi Council of Engineers as engineers with a specialty in architecture. This gives them the opportunity to benefit from all the services offered by SCE.
The SCE offers the professional registration for architecture graduates, which gives many benefits to them including:

- Assessment of academic qualifications and practical experiences of engineering practitioners, maintaining continuous professional development in order to improve the skills of engineers and following up with the developments in the field of specialization,
- Providing and applying the best professional practices by engineers to achieve the protection of society and ensuring its well-being,
- Creating a registry of engineers with validated qualification level and professional experiences.

The regulations of the SCE are similar to the regulations of the other countries in the Middle East and beyond. Most of the expatriates working in the fields of engineering, including architecture, have to register in the SCE to be officially accepted to work in KSA. All faculty members in the ARCH Department has affiliation and are registered in their own regulatory bodies in their home countries. Since many of the faculty in the ARCH Department have worked in the Saudi market, or have experience of the profession in the regional and international market, they enrich the program with their professional experiences and provide guidance and examples to students in the ARCH Program. Most of the Architecture Program graduates are members in the SCE, but only as "Engineers". Many of them are looking forward to become Associate Engineers after 4 years of work in an architecture office. Due to the short history of the program's graduates since 2009, only Aljohara Al-Saud was able to reach the registration as "Associate Engineer" and hence became partner at Henning Larsen Saudi Arabia in 2015.

The students of the ARCH program at Effat University are well prepared for practicing the profession and getting the SCE license. In addition to all the courses offered in the program and the co- and extra- curricular activities mentioned in the previous section, the ARCH Program emphasizes the importance of student internship. The internship is a prerequisite for the course titled Professional Practice (ARCH 557) (3 credits). This course is an introduction to the principles of professional practice and the summer internship experience is an integral part of it. The course includes portfolio development and writing an internship report. ARCH students need to do their internship in an organization where they can practice what they learned and acquire new skills related to their field. Internship planning, implementation, and evaluation are performed by the site supervisor, the faculty member responsible for the ARCH 557 course, and the Department Chair in collaboration with the university Career Development Office (CDO). The CDO is responsible for contacting the suggested companies to place students, conducting orientation sessions for the students before they join the company. They also help in collecting and filing the students' and the site supervisors' evaluation forms at the end of the internship.

A history of internship placements is kept in the alumnae report and satisfactory placements as evaluated by the faculty members responsible for internships are considered for future planning. As discussed in the section on Architectural Education and the Students, the activities through the year introduce students to the variety of opportunities that await them upon graduation. Thus, when all architecture students participate in the Professional Practice course, they gain valuable exposure to the profession and the real world of architectural practice and this training in many cases open the door for employment for some of them. In addition, joining the SCE helps them to continue to be in touch with the developments in their profession and get the professional development they may need after graduation to keep up with the growing requirements of the profession.

D. Architectural Education and the Profession

The undergraduate program of the Architecture at Effat University has the following courses which are meant to prepare students for the profession and profitable employment: Design Studios, Project Management, Working Drawings, Building Structures and Materials, Facilities Management and Professional Practice. There is also professional training, which is part of the Professional Practice course, that helps the students to be exposed to real-life professional contexts as a summer internship in an architectural firm for a minimum of 120 hours before they graduate. Other courses are geared towards understanding the current market and how architects need to respond to it in their designs. These include courses like History of Islamic Architecture, Saudi Traditional Architecture, Comparative Architectural Thoughts, which all expose the students to varied cultures and traditions in design to be considered in their own designs and to understand the varieties of design traditions that reflect specific cultural beliefs and social trends. This helps develop the critical thinking abilities of the students and instill in them the respect for the different design trends that reflect these varied cultures.

The comprehensive design studio in studio 8 gives the students the ability to apply what they had learnt throughout their previous courses and act as they are in a real architectural design office. However, there is always a difference between the classroom coursework and the real-world architectural practice, as well as the management of projects in class and the management of similar projects as part of the professional culture in the workplace. This has been

addressed by the Architecture Program at Effat University by revolving most of studio exercises around real projects with real sites, programs, and clients. It has also been addressed by always having instructors for studios from the profession, who are, or at least have been, involved in real life projects to have the solid background of discussing with the students the likely problems faced in the workplace, from the point of view of design as well as the point of view of clients' expectations and the larger context of the profession in general. Another strategy used by the program to overcome this possible limitation is using professionals as part-time instructors who either handle the whole studio or work as co- instructors with other Effat faculty to train the students and give the current perspective of the profession as have been exposed to them in the current market. Exposure to such experiences and discussions with professionals in the field help learners understand the need to respect the environmental conditions that impact the design, the expectations of the clients and the need to make innovative design contributions to cater for the needs of the community as well as progressively develop the profession.

The study of architecture is concerned with complex, interdisciplinary issues. Some matters are primarily individual and practical, such as the basic human need for shelter and the desire to contrive efficient, adequate forms for the patterns of daily life. However, the practice of architecture today requires coordinated contributions from a variety of fields. Therefore, the study of architecture at Effat University investigates the principles and applications of history, theory, drawing, and structures. Additional courses in technology, art, the humanities, engineering, the physical and social sciences, and management will help lay the foundation for the rest of education experience. Students of the Architecture Program are therefore trained to work in collaboration with variety of professionals from different walks of life to be able to produce a comprehensive design solution that take into consideration different elements like the history of the site, the social and emotional needs of the people inhabiting it, the geographical, geological and economic information of the site, the weather conditions affecting the site throughout the year, the functionality aspects of the building, the preferred architectural style in the neighboring environment, etc. To be able to grasp all this information, students learn to make their own detailed research in different areas of study and learn how to consult with different professionals and laymen/laywomen. Their success in getting the required data and using them to their own benefit lies in their ability to search for information, be attentive to all details, collaborate with others from other professions and open to variety of opinions, yet be able to make a final good choice that gives the best design solution possible. To acquire these skills, students are required to work with other professionals in the market and other colleges and departments of Effat University to finalize their projects and hence build these skills by practice throughout their learning experience at the Architecture Program. This is usually culminated in the comprehensive design studio, internship and final capstone project.

The Architecture Program also invites many professional keynote speakers to present to the students' real-life project, such as the infrastructure in the Middle East, which is the Riyadh Metro Project, where students experienced Design and Build Delivery method by three different consortiums for the infrastructure works, main stations. The visit is guided by Al Riyadh Development Authority, presentation given by the project manager and coordinator to demonstrate the project plan progress. Another Visit is organized to the Haramain Railway Project, FIDIC Contract. The tour was organized for the main station in Rabigh to understand the challenges and risks during the construction, and operation phases. This helps the students become familiar with current projects and architectural trends in the market as well as the challenges practicing architects face in managing such projects and the innovative solutions they provide to make their buildings have a positive impact on the environment. One of the interesting public lectures that was given to the students was a lecture by Cameron Sinclair, who is a Co-founder of the Architecture for Humanity, a nonprofit that seeks architecture solutions to global crises and acts as a conduit between the design community and the world's humanitarian needs.

In addition, to prepare students for the profession, the ARCH department (and college) invites working architects and design professionals for projects' reviews and juries. It is customary, and almost mandatory, to have professional and practicing architects as external jurors in senior studios. This also enables the local and regional firms to scout for talent and offer employment to graduating students.

The external jurors that have been invited included:

- Prof. Khaled Ali Yousef
- Prof. Ahmed Shehata
- Prof. Wael Yousef
- Dr. Mohammed Babsail
- Arch. Tarek Shalaby
- Arch. Anas Serafi

Faculty and students receive many invitations to attend lectures organized within the University campus. The planned times for those lectures are during the activity time, which is taking place on Mondays and Wednesdays from 12:30 to 14:30. The following are some examples of the lectures that were presented during the last semesters through the Meet the Professional guest lecture series:

Fall 2018:

- Eng. Fawaz A. Alharbi- Wednesday 28th Nov. 2018

Spring 2019:

- - Eng. Nidhal Taibah - Wednesday 13th March 2019
- - Eng. Mohamed Nour - Monday 1st April 2019

Table (15) Example of Lectures Provided for Faculty during Fall 2017-Fall 2018

Time	Event	Speaker
12:30 – 1:00	Orientation overview **Faculty Forms**: Faculty Workload & Time-Table Course Syllabus Course Specification Course Report Annual Faculty Portfolio Faculty Performance Evaluation	**Dr. Malak Alnory**, Provost, Office of Provost **Mashael Al-zahrani**, Assistant Director, Office of the Provost
1:00 - 1:30	**Human Resource Services**: Faculty Pay Slips, Professional Development Leaves, Ranks, Contract Renewal, Ethics and Integrity, and General Services	**Ms. Tamara Saleh**, Coordinator, Management of Human Resources
1:30 – 1:45	**We Innovate!** : Research at Effat General Policies, and Research Centers	**Dr. Akila Sarirete**, Assistant Professor, Dean of Graduate Studies and Research
1:45 – 2:15	**Empowering Student Success**: Students Centers and Ambassador Program	**Dr. Malak Abunar**, Assistant Professor & Dean of Student Affairs
2:15 – 2:45	**IT Services**: Introduction to the Banner System, Advising System, Promotion System and Blackboard	**Moodi Alsaib**, Director General for the MIETS and Facility & Equipment
2:45 – 3:15	**Quality Assurance at Effat University**: Introduction to the Deanship of Quality Assurance, Role and Functions, Surveys Assessments and Reports.	**Dr. Ahmad Attia**, Associate Professor & Director of Quality Assessment
3:15 – 3:35	**Library Resources**: Databases, Journals, eBooks and General Services	**Ms. Shaheda Banu**, Public Services Manager, Effat Library & Cultural Museum
3:35 – 3:55	**Testing Center**: The Role of the Testing Center at Effat University	**Ms. Iman Al-Moarawi**, Executive Manager, Testing Center

As mentioned earlier, the Annual **Memaryat Exhibition**, among other things, is a departmental effort to continually connect the alumnae and the student body with professionals and connect professionals with Effat architectural students. Every year, the architecture students collaborate with the faculty and staff to raise funds for the exhibition by visiting different private architectural firms. They also work diligently together to arrange the space of the exhibition and display the works and work out the benefits of donating firms. Effat University, the College and the Department put all its efforts in publicizing the event with the support of the Management of Communication and Public Relations to ensure that the exhibition is visited by interested professionals, other students and faculty from other universities in Jeddah and beyond, members from the Saudi Council of Engineers, media representatives, etc.

Figure (12) Students Meeting the Professional

E. Architectural Education and the Public Good

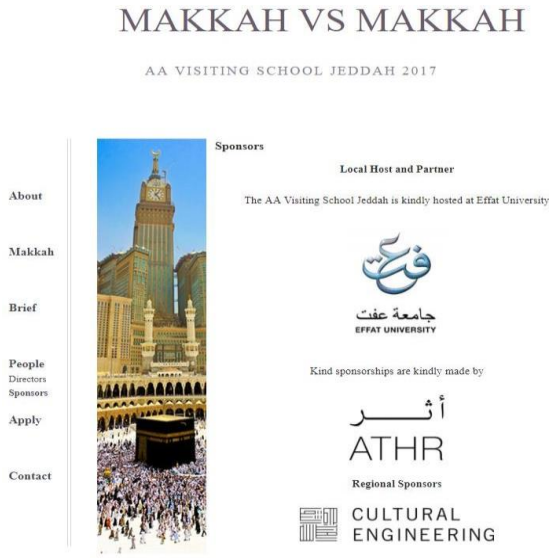
The Architecture Program, as part of its mission, states that it aims to provide students with excellent education to help them become "qualified architects and urban designers" that "can contribute to national and international progress of architecture and share in building the future of their country." Hence, it is fundamental that all the architectural education offered to the students of the Architecture Program would help them at the end serve the public good. This is one of the founding principles of the Architecture Program as mentioned above (I.1.1 - 11. Collaboration and Leadership). Both faculty and students consider in all their academic courses and design studios the need to consider the needs of the community they are working in and the importance of preserving its environment, energy, beauty, economy, etc. The students are also taught how to make designs more related to nature to belittle the harmful impact that their design may have in future. They are also made aware of the ethical requirements of the profession to enhance their understanding of the positive and negative impacts of their designs, so that they would be able to make the most appropriate and ethical architectural decisions. They also need as future leading and practicing architects to understand the importance of balancing between the requirements of clients' expectations and the public requirements so that both would go in harmony. They also learn that it is their duty to educate the clients, if they have to, to make them aware of the harm they may cause nature and themselves by going against it. These discussions are always part of courses that tackle these issues like ARCH556 Project Management and ARCH557 Professional Practice course. Some design projects done by the architecture students included designs of hospitals, schools, airports, community centers, high-rise buildings. Students develop a portfolio for their project starting from first year until graduation, which are meant for the public. While others projects revolved around buildings for individuals or

for commercial purposes like residential houses, supermarkets, malls, etc. In all cases, students are invited to discuss their views about these designs and how they need to consider their environment and how to keep it intact, and yet serve their major function.

The Architecture Program also encourages involvement in large community projects that help improve the environment. In the academic years 2010-2012, the Architecture Program shared in the Bani Malak and Al Bughdadyia Districts Project for Urban Development in collaboration with the Jeddah Development and Urban Regeneration Company (JDURC). The project, led by **Dr. Abdel-moneim El-Shorbagy**, involved architectural faculty and senior students, who worked collaboratively on a real-life project that aimed at revitalizing two of the old districts in Jeddah. The project involved meeting the authorities and inhabitants of the site to know their views and expectations. This was followed by making all necessary research and drawing for urban designs that were provided to JDURC and the Jeddah Municipality for implementation.

More recently, as part of the involvement with the AA Visiting School, the Architecture Program at Effat University hosted a collaborative project with the AA School, London, UK, which aimed at holding a series of international design workshops about the holy city of Makkah starting Fall 2015 and up to Fall 2017. The project has helped both faculty and students to get involved in a large scale project to study and develop one very important site in their community, Makkah. Besides its value in engaging students and faculty in a community project important for them, the international workshop, which allows other students from all over the world to join helps to make students engage with other international architecture students and professionals on important possible conservation projects. Those projects are part of training Effat students of the importance of civic engagement and commitment to global and environmental issues, which are values that the Architecture Program at Effat University is instilling in them.

Below is a new community project that the architecture program faculty and students were involved in the last years 2017-2018 and 2018-2019.



Under the patronage of Emirate Holly Makkah Region, an initiative of developing and designing the entrances and main paths of Makkah City was issued as a competition between different universities. Accordingly, the students of Effat University have participated in this competition with creative ideas and designs. The following 7 sites were proposed:

Al Dawarek Roundabout;
Makkah Highway Street;
Makkah Entrance on Makkah –Jeddah Highway [A] and [B];
The Extension of Jeddah- Makkah highway street:
From parking zone until the monument of the "Holly Book"
Al Madinah Al Munwarah Road and Ayesha Mosque:

The Entrance of Makkah from Al Madinah:
The students were divided into groups then they selected the site they would work on. They started their designs and reviewed their work with the supervisor of the competition "Dr. Samaa Badawi". Their work was presented to the provost to evaluate it and choose one of the projects to be proceeded to Makkah Province. All the students were acknowledged and received certificates from Effat University.

In the Urban design course, fall 2018, students were encouraged to participate in an urban design competition that was announced by Jeddah Municipality through the academic term to improve the "Fish Lake" area in Jeddah. The course's curriculum involves a design project that its nature and requirements are similar to the competition requirements. To enroll the students in such a competition, it was necessary to follow some steps:
First, the ideas were discussed then proposals were evaluated. Students agreed on having the "Fish Lake" land redesign as a course project and they were given the option of let join the competition or not.
Second, the faculty Dr. Alshimaa contacted the municipality to coordinate the dates and time to be sure it is suitable for the course outline and project time and number of groups, etc.
Third, they transformed the competition brochure into a project question paper that follows the standards and fit to course project scale and requirements.
The students were hesitated and afraid to compete, it was a big challenge that needs real encouragement and motivation, which the faculty successfully gave them.
Five groups out of six who joined the first stage of "Initial Idea", and then only three groups who decided to continue and submit the final proposal and present on the municipality theater in front of a big group of jurors from professionals and academicians from different universities and many audiences. Students were happy, thankful, and proud.
We are glad that one of Effat students' groups won the competition after being shortlisted as one of the three finalists, and finally came first through public voting by the residences of Jeddah.

Moreover, students are encouraged to participate, as groups or individually, through their co- curricular program, the Effat Ambassador Program, and extra-curricular activities to share in different community activities, whether inside or outside of the university. These include being members of specific clubs like the Green Club, the Design Club, the Photography Club, IQRA Club, QURAN Recitation Club, the Green Building Club. Students can also be

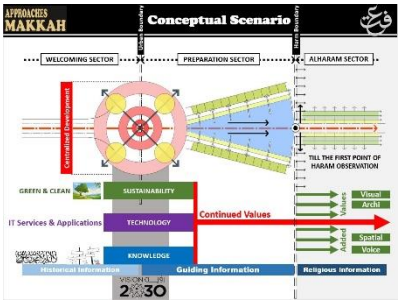
active members in different committees, like Memaryat Student Committee; and becoming members in association like the AIAS; becoming members of sports teams; volunteering to be student representatives in governing bodies and formal committees; supporting university-wide events like Open House, Career Day, Memaryat Conference and Exhibition, Learning and Technology Conference, Graduation Day, etc. Students are also rewarded by value points for sharing in social campaigns. Examples of such activities are like sharing in the "Be a Role Model" Campaign, which was inaugurated by HRH Prince Khaled Al- Faisal, the Governor of Makkah Region, in 2016-2017. Students are also contributing to community movements, like supporting the election of women in Shura Council and local councils, being part of UN Youth groups, and participating in an activity for a cause, like walk for raising fund for women education or breast cancer awareness, etc.

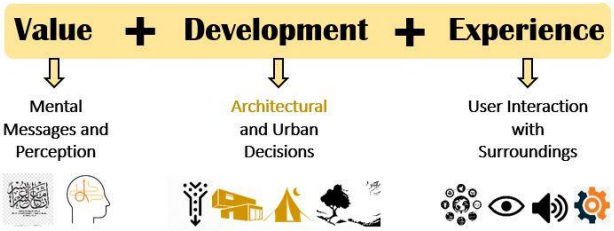
Another project was **Makkah Approaches Development.** It was requested by Makkah Province to present a proposal for the development of Makkah Approaches from the surrounding entrances: Jeddah, Aljomoum, ALhada, Allayth. The development requirements include but not limited to:

- Design gates on the entrance roads.
- Vegetation (on both sides of these roads and in-between lanes).
- Urban development for the areas surrounding these roads at the entrances.

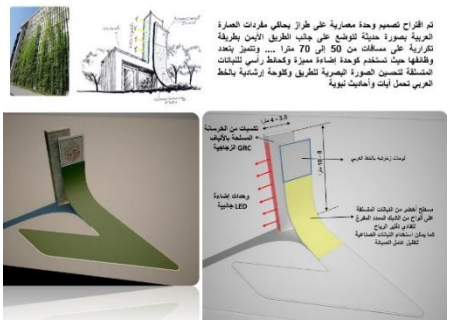
The concept behind the presented proposed development was - as shown in the figure below - to divide each approach into three sectors: welcoming sector, preparation sector and Alharam sector. Each sector has its own design theme as follows:

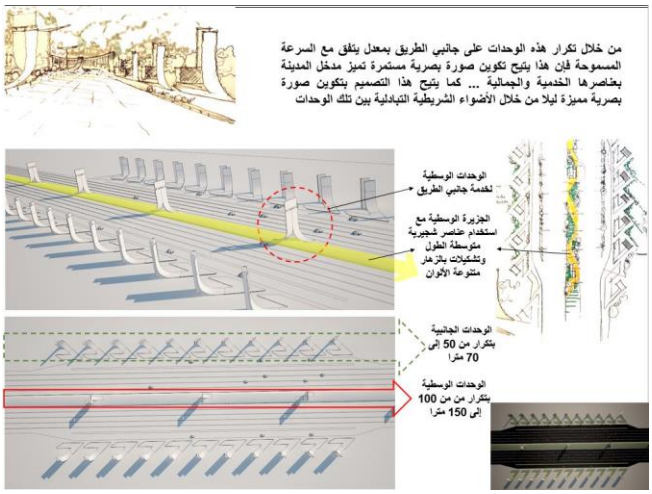
1. Welcoming sector: the first point of the approach that is characterized via three pillars: sustainability (using green and clean applications), technology (using it services and lighting elements), and knowledge using announcements and guiding boards.
2. Preparation sector: the second layer of the approach that will prepare users gradually before entering the third sector through the same former three pillars on both sides of the roads.
3. Alharam sector: The most important sector that has a different identity derived from the value and ethics of Alharam in terms of visual, architectural, and spatial aspects till the first point of observing Alharam.





The proposed design and concept was based upon a vision composed of three main features: Value of Makkah, development and user experience. The below figure presents these three features.
Some detailed drawings were presented to illustrate the proposed design items on the architectural and urban level.





It is believed that opportunities offered by the Architecture Program and other supporting units like the Deanship of Student Affairs, as mentioned above, help Effat Architectural students become aware of their duty as citizens of the world to contribute to the collective development of their immediate surrounding as well as become leaders in enhancing the global environment to the best of their abilities.

I.1.4 Long-Range Planning

The Architecture Program, similar to all other programs offered at Effat University, develops its strategic plan every five years to set the program goals, which are in line with the overall goals of the college and institution (See section I.1.1.2 above). The previous strategic plan that was conducted by the Architecture Program covered the period from 2012- to 2017 and was titled "to Excel and Lead". The strategic plan includes a detailed list of the ARCH goals and objectives, each with an action plan, the required resources and the target date for achieving each objective. These goals adhere to all the 11 standards of quality set by the national accrediting body in Saudi Arabia (i.e. National Center for Academic Accreditation and Assessment- Education Evaluation Commission) which ensure that planning covers all the major functions of the institution. One of the most important aspects planned by the ARCH Department is the forecast of number of students and subsequently the faculty recruitment, facilities' development and equipment upgrade, which are also connected to financial planning over five years to ensure that all supporting services are available to provide quality teaching and learning. Implementations of the strategic plan are monitored per semester based on a number of Key Performance Indicators (KPIs) and the outcomes are evaluated to decide on improvement plans, which are recorded and followed up in the program Semester Quality and Activities Report (SAQR).

Some of the key performance indicators that have been used in the 2012-2017 strategic plan for assessing the performance of the program in achieving its mission, goals and objectives are outlined in the table below. The KPIs used for measuring the program performance were also aligned to the national accreditors (NCAAA) 11 standards of quality.

Table (16) KPIs for Measuring ARCH Program Performance in Relation to the Strategic Plan (2012-2017) Related to NCAAA 11 Standards of Quality

Standard	KPI
1. Mission, Goals & Objectives	Degree of awareness of the stakeholders of the mission, vision and goals of the program.
	Compliance of the major decisions of the governing body (i.e. departmental council) with the mission of the program and in turn of the institution.

	Number of times mission, goals and objectives of the strategic plan of the program were reviewed against the mission and goals of the college/institution.
2. Program Administration	Degree of involvement of the program's administrators in key projects that help in developing and improving the program's services
	Degree of completion of the action plan of the program.
	% of awareness of students, faculty and staff of the institution's/program's ethical code of conduct
	Number of incidents of breaching the Effat ethical code of conduct/program's code of conduct
	% of the completion of the development of the program's policies and procedures manual.
	% of satisfaction of all stakeholders of the policies and procedures of the college (including the organizational charts and job responsibilities)
3. Quality Assurance	Students overall evaluation of the quality of their learning experience
	Proportion of courses evaluated by students every semester
	No. of quality assurance processes undertaken by the program (% of active and inactive)
	% of staff involved in the quality activities undertaken by the program during the semester.
	No. and qualifications of staff to ensure quality and promptness of services.
	No. of performance indicators monitored per semester and level of performance achieved in them.
	No. and quality of national and international institutions against which your unit is implementing benchmarking to adopt best practices.
	No. of meetings held by the program with internal independent evaluators offering the program an independent verification of the standards of students' achievements.
	No. of meetings held by the program with external independent evaluators offering the program as independent verification of the standard of student achievements
4. Learning and Teaching	GPA distribution of the graduates
	Achievement of program ILOs by the graduates
	Student satisfaction with their learning
	Employment rates of graduates (all and after 6 months)
	External prizes for all students
	Undergraduate research output
	No. program development activities against planned
	No. program review activities against planned
	Satisfaction rate of different stakeholders on the different programs offered (graduates, employers, alumnae)
	No. and types of assessment used
	Grade distribution
	GPA distribution of continuing students
	% graduation projects with external reviewers

	% of W/P students who progressed out of the W/P status
	Satisfaction rate of the students about the EAP
	Faculty-Student ratio
	Overall student course evaluation (+Participation rate)
	First year completion rate (UG and G)
	Program completion rate in minimum time (UG)
	Program completion rate in specific time (G)
	Class size (Science/Theoretical/Mini)
	Faculty satisfaction rate with CET&L workshops
	Faculty attendance rate to CET&L workshops
	% PhD holders
	% part-time faculty
	% specialization areas covered by current faculty/program
	% students placed for internship from those who are eligible
	Satisfaction rates of Students/Employers about the internship
	No. partnerships/ (1)
	Evaluation of existing partnerships
5. Student Administration and Support Services	Number of new students who; applied for the program, were admitted to the program, enrolled/registered in the program, are transfer students
	Quality of newly admitted students; average High School GPA, average Qiyas score, and average TWE and TOEFL
	% of accuracy of end of semester audit of students' records kept by programs
	Number of students involved in disciplinary action and code violations.
	Percentage of students who file appeals
	Academic advising (Ratio of advisor to advisee)
	% of student satisfaction with academic counselling, career planning and advice.
6. Learning Resources	Number of book titles held in the library as a proportion of the number of students in the program
	Number of electronic collection items as a proportion of the number of students in the program
	Number of periodical subscriptions as required by the program.
	No. of faculty and staff members making use of the access systems to print and digital collections in their teaching and research.
	Number of orientations and information literacy sessions provided for students and teaching staff by the library.
	Student and faculty evaluation of the adequacy of the library services
7. Facilities & Equipment	Number of accessible computer terminals per student for your program
	% satisfaction on adequacy of facilities and equipment for the program (e.g. buildings, green areas, playgrounds, classrooms, labs, studios, chairs, desks, computers, printers, website information and accessibility to e-learning resources, etc.)

	% satisfaction with management and administration of facilities
	Average overall satisfaction (by students, faculty and staff) with IT equipment and educational services (.e. hardware, blackboard, banner, Wi-Fi, access to website and intranet, etc)
8. Financial Planning and Management	% of compliance to the financial plan/budget set for the program
	% satisfaction of cost centre managers with the financial management process.
9. Employment Processes	% of teaching and staff positions unfilled at the start of the semester.
	% of teaching staff leaving the department this semester for reasons other than age retirement
	% faculty and staff participating in professional development activities this semester.
	% satisfaction with professional development activities.
10- Research	% of research active faculty in the program.
	Number of publications (#/yr) in international reviewed journals by full time faculty under the program.
	Number of citations in refereed journals per FTE faculty under the program.
	Proportion of full time members of teaching staff with at least one refereed publication during the previous year under the program.
	Number of faculty or students who participated by giving papers or reports/posters in conferences under the program.
	Research income from external sources in the past year as a proportion of the number of full time teaching staff members of the program.
	Number of memberships of (inter) national scientific organizations of members under the program.
	Number of collaborative research projects (national/ international) under the program.
	% of program budget allocated for supporting research needs and equipment
11- Community Services	% of satisfaction of stakeholders with the program public information in print and on the website, intranet, and social media.
	Number of professional services offered by the program per semester.
	Number of community / executive education programs provided by the program per semester.
	Proportion of teaching staff and other staff actively involved in community service activities.

By the end of the strategic plan in 2016-2017, the overall performance of the Architecture Department/Program reached the target and above, based on the KPIs used to achieve the 11 strategic goals of the Architecture Department/Program. The determination of the ARCH department to improve its quality resulted in achieving the majority of the set targets for goals and objectives as the performance exceeded the target which was 70%. The development of the ARCH program over the past years witnessed a healthy growth of students, faculty, staff, physical space, learning resources, computer labs and technological resources, financial resources, research output, academic and professional relations, and community engagement. The program also managed to get its full national re-accreditation. Achieving international accreditation (or substantial equivalency) and expanding research output are areas for future development and have been added to the new strategic plan as will be explained below. Below are more details about the achievements regarding each of the goals:

Goal 1: Achieve and maintain a highly recognized architecture program in the kingdom and worldwide.
Through the continuous review and update of the website page to show the department activities and achievements, such as accreditation and faculty research output, international relations, conference and workshops, and success stories of winning awards and competitions, the program projected a very positive image to all students and community members and helped in creating a high public trust in the program nationally and outside.

Goal 2: Create an encouraging, well organized, and productive work environment to maintain a high performance rate of both faculty and students.
The continuous efforts to provide positive work and learning environment to both faculty and students by improving policies and procedures, work and learning satisfaction levels and maintaining a family environment in the workplace has resulted in increasing levels of satisfaction levels by both students and faculty levels (around 75%). This is evidenced by the high retention rates of both faculty and students which normally reach 85% and above.

Goal 3: Gain and maintain national and international accreditation in order to gain place among the top universities in the Kingdom.
The Architecture Program achieved full accreditation from the national accrediting body (NCAAA) from the year 2010-2017 and then achieved full re-accreditation for yet another 7 years from the year 2017 to 2024. The level of the quality of all the processes of the department, academic and administrative, has increased in all ways. The Architecture Program is seeking international recognition from NAAB through achieving substantial equivalency. The current report presented to NAAB is part of this effort.

Goal 4: Maintain and achieve high quality teaching environment, ensure the provision of all academic and services resources, and prepare to offer a postgraduate study.
More than 450 credit hours are offered every semester for students to cover their needs and to ensure that they are following their five-year learning plan successfully. On the other hand, annual revision of all action plans related to learning and teaching allows the department to cater for the changes faced in implementation. This involves reviewing course offerings, faculty recruitment needs, required software license renewals, further lab experiments and resources required, etc. All actions taken according to the ARCH Strategic Plan has been clearly and continuously communicated to all concerned parties with reports on the positive levels of performance and recommended improvement plans. Monitoring of implementation of the program is done regularly through course reports, Department Council minutes and decisions, semester activity and quality reports, faculty and students' surveys and annual program reports. Evidence of the success in achieving this goal is that development of the new architecture program to be implemented in 2017-2018 and the establishment of the Master Degree in Urban Design.

Goal 5: Increase the recruitment rate of new students and maintain the retention rate of continuing students.
There has been always an increase in the number of students admitted to the Architecture Program due to its attractiveness to many students, while maintaining the same high level of admitted students. The program has healthy retention rates. An obvious increase in student numbers happened when government scholarships were offered to Saudi students entering capable private universities like Effat University. Currently, numbers are returning to their normal estimates after the government started to limit the scholarships to continuing students only.

Goal 6: Managing and updating the necessary learning resources to faculty and students.
In 2014-2015 the new Effat Library and Cultural Museum opened for students, and from this date till now the number of book titles successfully increased to reach and go beyond the target KPI for the number of available library resources to number of architecture students. Also, the increase of number of Computer Labs and PCs gave students the needed resources to work on their projects on campus and the department achieved its targeted ratio.

Goal 7: Sustain the safety, adequacy, and functionality of the workshops and labs, and construct a new building to be attached to the existing one to cater to the increasing number of the students.

The levels of the satisfaction of cleanliness and security of the campus and Architecture Building have always reached a level above 80% for both faculty and students, which is the target. The Architecture Building was also renovated and expanded to a new neighboring building and now every student in the department has her own space area throughout the semester. Overall, the increase in number of studios, labs and computer PCs raised the satisfaction rate of students and faculty towards the functionality and adequacy of the computer labs.

Goal 8: Work on different means of fundraising to support the equipment's purchases, faculty research, exhibition, publications, and the construction of the new addition to the architecture department.

The Architecture Department successfully increased its revenues that support through the increased numbers of students admitted every semester. It also shares in diversifying the income of the department through running sponsorship campaigns and offering community programs and consultancies. The Photography courses offered through the EECSI and Bani Malek and Al- Bughdadiya Project are cases in point. More still needs to be done to increase the revenue of the Architecture Program in future through obtaining more sustainable sponsorships and offering the services of the program to the wider community.

Goal 9: Increase the professional development of architecture administrative staff and faculty with administrative duties.

The Architecture Department succeeded in hiring qualified faculty sharing their knowledge and expertise with the students and lowering the ratio of faculty to number of student in classrooms. The ARCH department faculty and staff are involved in offering and receiving professional development. They make use of all the professional development opportunities offered by the Center for Excellence in Teaching and Learning, Deanship of Quality Assurance, Deanship of Graduate Studies and Research, Management Human Resources and all external trainings offered by the same entities. Some of the workshops and training attended by the architecture faculty in 2015-2016 and 2016-2017 include blackboard workshop, strategic planning workshop, testing center workshops, key performance indicator workshops, advising workshop, assessment strategy workshop, problem base learning workshop and project base learning workshop and final exams workshop. A record of all these workshops will be available in the visiting team room.

Goal 10: Encourage faculty and students to be involved in scholarly research activities.

For research, continuous support is offered to the faculty to enable them to increase their publications and participation in conferences as well as travel grants and sabbatical leaves are offered to faculty upon application to the Research and Consultancy Institute. For example, Dr. Mohamed Fekry obtained a conference participation grant in 2016, Dr. Mady Mohamed won a research grant of 20,000 SAR and Dr. Mohamed Shokry was granted a sabbatical leave for one year (2017-2018). The introduction of the new Master Degree in Urban Design is expected to increase the number of publication of the department by students. Still more effort is to be exerted in future, to increase the quantity and quality of the research output of the Architecture Program faculty and students.

Goal 11: Sustain, strengthen, and develop positive and interactive relationships with the community.

The ARCH department has succeeded in achieving positive and active relationship with its local community. Architecture Design Studios at senior levels tailor students' semester projects to serve their community needs. For instance, Design Studio-6 (with Urban Design focus) participates in national competitions for settlements regeneration, while Design Studio-7 (with focus on the design of public buildings) participates in offering real projects, some offer innovative ideas. The successful yearly events that are organized by the ARCH department mirror the ARCH program activities and achievements. The Annual Memaryat Exhibition, taking place every spring semester, celebrates the innovation and achievement of the ARCH students throughout the academic year. The

yearly exhibitions are accompanied by awards ceremony for innovative projects and various lectures and workshops conducted by faculty members and national and international professionals.

New Strategic Plan 2017-2022

In 2016-2017, the Architecture Program developed its new 5-year strategic plan from the period 2017 to 2022, which is titled "Embracing Research". The strategic plan of the Architecture Program was also aligned to that of the College of Architecture and Design and Effat University. It is clear that the new directions of the new strategic plan are to put more emphasis on research and intellectual contributions of faculty and students.

The Architecture Department in its new strategic plan is aiming to continue graduating architecture students that are able to be up to international standards and serve their country the Saudi and help to achieve the Saudi vision of 2030. "Saudi Arabia's Vision 2030" was adopted as a methodology and roadmap for economic and developmental action in the Kingdom of Saudi Arabia. In its aim to grant the Kingdom a leading position in all fields, Saudi Arabia's Vision 2030 sought to identify the general directions, policies, goals, and objectives of the Kingdom. "Saudi Arabia's Vision 2030" encompasses -in a number of domains-strategic objectives, targets, outcome-oriented indicators, and commitments that are to be achieved by the public, private, and nonprofit sectors. The Architecture Department believes that Effat graduates should be part of building the future of their country and thus the Architecture Program aspires to prepare female architects to contribute to the vision of their countries.

The following table is presenting the vision and mission of the architecture department for the coming five years 2017-2022 and mapping it with the college and institutional vision and mission, which lay the foundation for the action plan to be followed afterwards.

The table below shows the alignment between the Vision & Mission of the University, College, Department and Architecture program clarifying the points of alignment through word analysis:

Table (17) The Architecture Department Vision & Mission for the Five Years 2017- 2022 Mapped with College & University Vision and Mission

Effat University Vision	Effat College of Architecture and Design Vision	Architecture Department Vision	Point/points of Alignment
Effat University strives to be recognized as one of the world's leading institutions in scientific discovery and innovation presenting solutions to societal challenges, and to serve as agent of change that advances inspired leaders and scholars in fulfilling Queen Effat Al-Thunayan Al-Saud's vision (God rest her soul).	Effat College of Architecture and Design aspires to be a hub for creative and innovative scholars of faculty and students who contribute through artistic, innovative, and sustainable solutions to the local and global community.	Architectural Department aspires to prepare professional architects and urban designers of tomorrow, who can contribute to national and international progress of architecture and related fields, share knowledge nationally and internationally through research and community service, develop the profession through practice and contribute to the vision of their country with respect to environmental, social and economic sustainability.	1. Significance 2. high quality scholars 3. agents of change
Effat University Mission	**Effat College of Architecture and Design Mission**	**Architecture Department Mission**	**Point/points of Alignment**

Effat University prepares aspirational and effective leaders of international quality who contribute to national and global progress by interweaving Effat University Core Values into an innovative education which creates a culture of broad inquiry, intellectual engagement, and valuable societal impact.	Effat College of Architecture and Design graduates creative and effective leaders who can compete nationally and internationally by integrating core values into the education of architecture, design, and visual media and combining academic study and practicum experience.	Architectural Department prepares professional leadership and future qualified architects and urban designers with excellent architectural education who can enrich the profession through research and practice, can contribute to national and international progress of architecture and share in building the future of their country by interweaving Core Values into an innovative and comprehensive architecture education.	1. Leadership 2. national and international progress 3. integration of core values 4. Field Experience with In-class Education.

In the process of developing the new strategic plan at the institutional, college and departmental levels, a SWOT analysis and market research were conducted and the Department Chair and faculty members set their new vision, mission and goals based on these, ensuring that the goals were reflective of the needs of the stakeholders, and are measurable and achievable (realistic). Additionally, several meetings were done at the departmental, college and institutional levels to ensure the consistency of the goals from institution level to departmental level. The table below illustrates the ARCH program's new set of goals which are closely aligned with the NCAAA standards as well as with the University and the ECoAD goals.

The Architecture Department's set of goals in 2014-2017 were closely aligned with the NCAAA standards as well as with the University and the College goals. The program goals were also aligned to all of these goals. The table below shows the mapping of the Architecture program goals for 2017-2022 with the College and University goals. The goals correspond to the NCAAA 11 standards.

Table (18) ARCH Program's New Set of Goals which are Closely Aligned with the University and the ECoAD Goals.

Effat University Goals	ECOAD Goals	Architecture Department Goals 2017 -2022
Enhance Effat University's national and international recognition by deepening its presence, impact and contribution to the social, cultural and economic vitality of the Saudi 2030 vision.	Adopting the Saudi 2030 vision in presenting Effat College of Architecture and Design as a contributor to the creative culture nationally and internationally.	Be recognized as the leading Architecture Department nationally and internationally in the education of creative, innovative architects, and future urban designers who are capable to effectively contribute to Saudi Vision 2030.
Stimulate a progressive and dynamic work environment by ensuring effective leadership principles and transparent governance	Encourage a dynamic work environment by ensuring transparent governance.	Provide a professional transparent environment that ensures participation, innovation and ethical values.

Enlarge the scope of the national and international accreditations and aspire to achieve the goals of Saudi transformational plan 2020 in getting Effat University ranked as one of the 5 Saudi Universities among the top 200 institutions in the world.	Achieve national and International accreditation for ECoAD Programs and reacha satisfactory level of national and international recognition.	Maintain the national accreditation for the Architecture Program and achieve international accreditation within the coming years.
Provide an innovative, distinctive, and high quality education, which inspires the students' broad inquiry, intellectual engagement, and service and makes Effat University widely known for its excellence in all its distinctive academic activities.	Provide excellence in all ECoAD distinctive academic activities, which inspire the students' innovative, creative, and intellectual engagements.	Provide an integrated, comprehensive and high quality architecture education, which induce students' creativity and talent by offering a diverse, interdisciplinary and rigorous curriculum led by an accomplished faculty in a comprehensive studios and classroom environment.
To be at the forefront in attracting and retaining a diverse body of students and continue graduating agents of change who will create future opportunities and be Ambassadors of Queen Effat Legacy.	To qualify the ECoAD graduates to be the Ambassadors of Queen Effat Legacy and agents of change by attracting and retaining a diverse body of students.	Attract and retain highly qualified, innovative and creative students who will be leaders of tomorrow.
Cultivate broad inquiry and dynamic learning environment that foster creativity among students, faculty, staff and external community through state-of-the-art learning and information resources and services.	Ensure dynamic learning environment that foster creativity among ECoAD students, faculty, staff and external community through state-of-the-art learning and information resources and services.	Update the learning resources that are parallel to international standards in terms of new technologies and futuristic learning facilities for optimal teaching and learning experience.
To provide and efficiently manage a modern and sustainable working and learning environment that meets the university evolving needs and future growth.	To obtain modern and sustainable workshops and digital labs that encourage ECoAD students to practice hands-on and practicum creative projects.	Provide more innovative facilities and equipment that match with the worldwide architectural education and ensures unique program delivery.
To maintain and enhance our overall financial strength and enhance the University's competitive position.	To maintain healthy financial balance by creative use of budget and resources.	Sustain the financial status of the Architecture Department through future consultancy services and ongoing student recruitments.

Maintain and enhance efforts to recruit, nurture, and retain a diverse faculty and staff in order to make Effat community a place of choice.	Enhancing ECoAD efforts to recruit, nurture, and retain a diverse faculty and staff in order to strengthen the programs.	Recruit more highly qualified and motivated academic and researchers that engage the department with the future and the international academic level.
To foster a vibrant, successful and interactive research community that generates ideas and discoveries leading to intellectual property, enterprises, socio-economic prosperity and financial wealth, thereby realizing the objectives and aspirations of the Saudi 2030 vision.	Inspiring by of the Saudi 2030 vision, the ECoAD aims to create a vibrant, creative, and interactive research community that generates artistic and production ideas worthy of implementing in the national industry.	Create a vibrant, innovative and interactive research that is apply the Saudi 2030 vision, through scholarship, research, and post- graduate programs that seek to serve the community, environment and respect Saudi culture.
Develop and support a culture of service through national and international long-term productive partnerships and collaborations that support the community and strengthen the university.	Enhance the ECoAD culture of service through national and international productive partnerships and collaborations that support the community and the college.	Develop future partnerships with national and international partners that enrich the education environment and build new bonds with the community.

Based on the abovementioned goals, a number of key performance indicators (KPIs) were identified in order to assess the ARCH program's achievements in relation to the 11 strategic goals for monitoring performance and benchmarking purposes. These KPIs are aligned with those of the ECoAD and the University's goals and the NCAAA's 11 quality standards. The following table represents the new KPIs set by the Architecture Department to measure the achievement of each goal and its smart objectives and their expected actions.

Table (19) ARCH Goals, Smart Objectives and KPI's

ARCH Goal	Smart Objectives	Actions	KPIs
Be recognized as the leading Architecture Department nationally and internationally in the education of creative, innovative architects, and future urban designers who are capable to effectively contribute to Saudi Vision	Enhance ARCH Stakeholders' awareness of the Mission Statement & Objectives	1-Advertise and circulate Effat mission statement and goals to all stakeholders through website, email, advertisement boards.	Percentage of faculty/staff awareness about ARCH mission and goals.
		2-Arrange several orientations for mission and goals every semester to all stakeholders: (students– Faculty– employers – Alumnae)	Number of orientation sessions conducted for students/faculty.
		3-Conduct a yearly survey to evaluate the internal and external stakeholder's awareness (students – Faculty – employers - Alumnae)	Stakeholders' awareness ratings of the Mission Statement and Objectives (students' awareness).
			Stakeholders' awareness ratings of the Mission Statement and Objectives (Faculty awareness).

2030.	Promoting the Architecture department in national and international level	**Education** Increase employment and ARCH graduate school enrolment opportunities for Effat graduates internationally to 20 countries all over the world.	The geographical distribution of the graduates.
		Increase the percentage of students who are taking semester abroad.	Percentage of the student who will have a semester abroad (including summer)
		Increase the countries for incoming students.	% of outbound exchange students.
		Create student e-portfolios through task stream (integrate it with ambassador).	% of students who have e-Portfolios.
		Create e-portfolios for ARCH faculty and update the webpage.	% of students who have an e-portfolio.
		Enhance faculty presence through external faculty webpage.	% of faculty members who have an updated webpage.
		Research Increase research output from the ARCH department (international journals) and activities (conferences, forums and workshops) nationally and Internationally. Increase national and international consultancy services by the ARCH department	No. of presented papers at conferences during past year per full time faculty
			Number of refereed publications per full time equivalent teaching staff.
			Number of consultancy services per year
		Community Services Maximize the participation of the ARCH department in ARCH exhibitions, events, architecture competitions, websites, press, media (radio and TV), and social media.	Number of media appearances by staff (press, TV, radio) per year.
		Maximize the contribution of the ARCH Department in the Effat Executive and Community Services Institute's Courses.	Number of continuing/executive education programs.
		Maximize the number of national & international membership for students and faculty.	Percentage of faculty who have national membership (Saudi council of engineers- etc…)

			Percentage of students who have national membership (Saudi council of engineers)
		Activate the role of the ARCH department in Enrich the architecture culture inthe kingdom	Number of ARCH events that is open for external attendees
	Increase the Socio- Economic Impact of the ARCH dep	**Education** Employ the ARCH Graduates in less than 6 month after their graduation	% of graduates from undergraduate programs who within six months of graduation get employed
		Help ARCH graduates to be entrepreneurs and to establish their private offices	% of graduates from undergraduate programs who started their own business (private offices)
		Maximize the employment of ARCH Graduates in high ranked architecture offices in the kingdom and worldwide.	% of graduates from undergraduate programs who work in a senior administration positions
		Open PhD program	No. new programs started
		# of courses with Service Learning component	2/program
		Research Improve the quality of published papers and the number of number of citation per faculty	Number of refereed publications per full time equivalent teaching staff. (ISI & SCOPUS indexed journal)
		Achieve one research output for each faculty with ISI not less than 5 H factor.	Number of citations in refereed journals per full time equivalent faculty members.
		Conferences: Elevate conference proceedings to Scopus quality Consultancies: deliver quality academic and business consultancies.	No. of ARCH indexed conferences in SCOPUS or ISA
			No. of consultancy services offered per semester
		Community Services Maximize the participation of the ARCH department in ARCH exhibitions, events, architecture competitions, websites, press, media (radio and TV), and social media.	Number of media appearances by staff (press, TV, radio)
	Align ARCH department	**Education** Review ARCH programs for UG & PG	Cycle of review (each 3 years for UG & PG)

	outputs and goals with the Saudi 2030 vision in terms of social, environmental and research contribution.	**Research** Increase the collaboration between ARCH researchers and research centers with government, nonprofit organizations and business sectors.	No. of collaboration agreements between ARCH researchers and research centers with government, non-profit organizations and business sectors.
		Community Services Requests from the practice community to utilize faculty expertise for consulting projects, broadcast forums, researcher-practitioner meetings, faculty/student consulting projects, etc.	No. of requests or invitations from external organizations or institution to our faculty.
			# of participations in competition

The rest of the KPIs used to measure the performance of the new strategic of the Architecture Department in fulfilling its 11 goals are to be provided in the room for NAAB visiting team.

The following are the results of the assessment of the KPIs for the academic year 2017-2018 measuring the progress towards the achievement of the 11 strategic goals of the Architecture Department. It is clear from the evaluation that the Department has managed to achieve the target of 70% in each of the 11 goals. However, more is expected to be achieved in terms of research output, community services as well as fulfillment of the overall mission and goals, which is understood as the department has just launched its strategic plan.

Table (20) Overall Performance of the Architecture Program Based on the Achievement of the 11 Goals (2016-2017)

NCAAA Quality Standard	Percentage of KPIs achievement
Standard 1: Mission, Goals and Objectives	**71%**
Standard 2: Program Administration	**85%**
Standard 3: Quality Assurance	**85%**
Standard 4: Learning and Teaching	**92%**
Standard 5: Student Administration and Support Services	**86.35%**
Standard 6: Learning Resources	**90.3%**
Standard 7: Facilities and Equipment	**97%**
Standard 8: Financial Planning and Management	**95%**
Standard 9: Employment Processes	**81.4%**
Standard 10: Research	**73%**
Standard 11: Community Services	**75.2%**

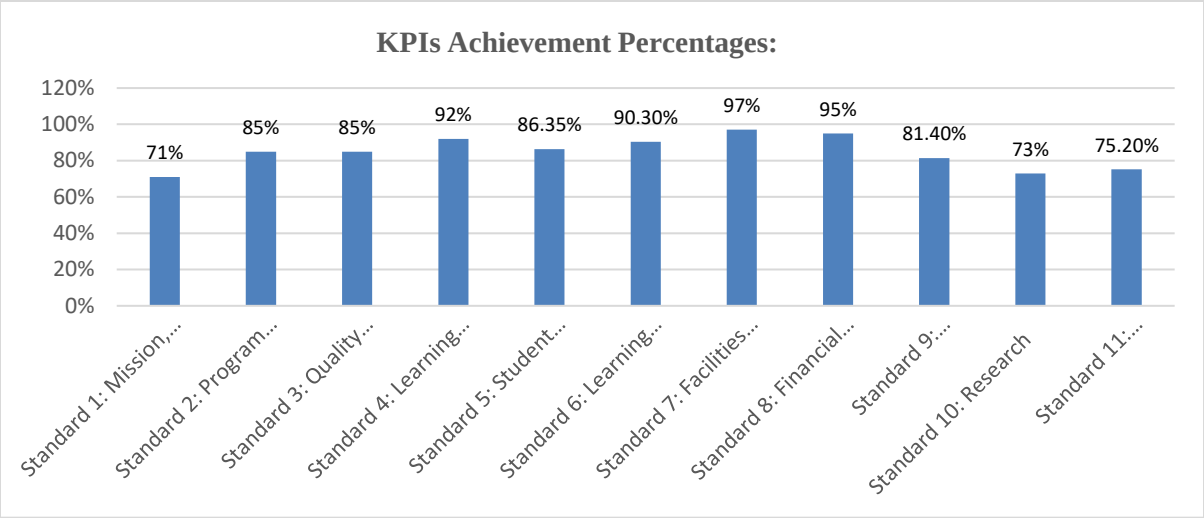


Figure (13) Overall Performance of the Architecture Program Based on the Achievement of the 11 Goals (2016-2017)

The Five Perspectives and Long Range Planning

The strategic plan (2017-2022) of the Architecture Program is also designed to fulfill the NAAB five perspectives on architectural education. Below is a brief explanation of the role that the strategic plan plays in achieving these five perspectives.

A. Architectural Education and the Academic Community: To help in enhancing the academic, scholarship and community service contributions of the faculty and students of the Architecture Program, which constitute its academic community, the Architecture Program sets goals number 4, 10 and 11 of the new strategic plan (2017-2022) to focus on offering updated programs, undergraduate and graduate (master and PhD). these offered programs will be taught by talented faculty that provide comprehensive and high quality architecture education for attracting, retaining and developing creative young female students' that can compete in the market of the 21st century. It is also planned that the faculty and students, undergraduates and graduates, would be encouraged to produce innovative and interactive research fulfills the Saudi 2030 Vision.

B. Architectural Education and Students: The Architecture Program aims in its 2017-2022 strategic plan, as per its updated mission, to "prepare **qualified architects and urban designers** of **international architectural quality**, who can contribute to the **national and international progress** of architecture majors". Goals 5 and 4 of the new strategy outline the plan of the program to continue to attract and retain accomplished high school graduates and empower them to become the leaders of the future in the area of architecture and urban design. This is also to be accomplished by cultivating in the students of the Effat Architecture Program the personal, ethical, social and professional qualities of Effat Gradates through its enriching general education program, architecture curriculum, co-curricular and extra-curricular activities.

C. Architectural Education and the Regulatory Environment: The Architecture Department has developed an informal understanding with the Saudi Council for Engineers (SCE) to support all the graduates of Effat Architecture Program, both Saudis and internationals. In addition, further efforts are to be made in the new strategic plan to help the graduates of the Architecture Program gain valuable professional experience through their Professional Practice course as well as support their memberships in national, regional and global architectural societies and/or gain further professional certifications.

D. Architectural Education and the Profession: Since its inception, the Architecture Program has delivered the program as a professional degree that prepares qualified female architects. The mission of the 2017-2022 strategic plan continues to emphasize that the program will "prepare qualified architects and urban designers of international architectural quality" through education that "engages field experience with in-class education". All goals, especially goals 1 and 4 of the strategy, work towards achieving this mission. Hence, the program will continue to train professional architects, as well as offer professional opportunities by involving professionals in teaching and delivering lectures and workshops, or engaging them as jurors and/or internship supervisors. Trips to working sites and engagement in real architectural and urban design projects nationally and internationally will also continue to introduce students to architecture in practice.

E. Architectural Education and the Public Good: The ethical dimension of architectural education is an integral part of the education offered at Effat Architecture Program. Hence, the program will continue to instill in its students the importance of community service and civic engagement through offering and participating in public exhibitions, workshops, social events, training programs, etc. under the strategic plan 2017-2022. Goal 11 also encourages faculty and students to develop partnerships with national and international partners that enrich the education environment and build new bonds with the community for the public good.

I.1.5 Self-Assessment Procedures

The knowledge of the process of the management and implementation of a Self-Study was introduced internally at Effat University through seminars and workshops and externally through training programs. This was mainly started to fulfill national accreditation requirements in 2009 when Effat University was preparing for its institutional national accreditation. The University formed a quality assurance steering committee, 11 working teams for the Institutional Self-study, and 4 working teams for the Programs' self-study. One of the working Quality Assurance (QA) committees was responsible for working on the Architecture Program's Self Study Report (SSR). The Architecture Program's QA Committee was then established in the department. The committee was chaired by the Department Chair and included all of the Department members. The committee was responsible for the preparations of the documentations and the submission of the Self Study Report. The QA committee started the Self Study process by preparing the self-evaluation scales that investigate all the aspects of the program. Dr. Mervat El-Shafie, the Chair of the Architecture Program at that time (currently the Dean of ECoAD), conducted several meetings with all faculty and staff members to be familiar with the 11 standards of quality set by the national accrediting body, the National Commission for Academic Accreditation & Assessment (NCAAA).

10 standards of NCAAA: The National Center for Academic Accreditation & Assessment in Saudi Arabia NCAAA has developed a set of standards for quality assurance and accreditation of higher education institutions and programs in eleven general areas of activity.

1. Mission Goals and Objectives
2. Program Administration
3. Management of Program Quality Assurance
4. Learning and Teaching
5. Student Administration and Support Services
6. Learning Resources
7. Facilities and Equipment
8. Financial Planning and Management
9. Employment Processes
10. Research
11. Relationships with the Community

The aim of the meetings was to evaluate each standard and sub-standard based on the collected and discussed pieces of evidence for self-assessment. Examples of such evidence included the program's strategic plan (2007-2012), the transitional plan (2009-2012), the program enrolment and budget plans, program specifications, course specifications, statistical data for students' profile, faculty profile, and results of students' surveys and assessments. Thus, an initial ARCH Self-Study Report (SSR) was prepared that helped the program evaluate its performance over the two academic years of 2007-2008, and 2008-2009 preceding the submission of the self-study, and after several edits by the different sub-committees involved in this process, the first self-study report was completed and submitted to the national accrediting body to receive full accreditation for the Architecture Program in 2010.

Following Effat University guidelines that recommended the establishment of a Quality Assurance Standing Committee in each department to continue the process of self-assessment, an ARCH Quality Assurance Standing Committee was formed in Spring 2012. Dr. Mervat El- Shafie chaired the ARCH QA committee that had a number of the ARCH faculty concerned with QA issues as members. The objective of this committee, whose membership is updated annually, is to oversee the program's quality assurance tasks and to maintain high quality standards towards the realization of the program's mission, goals and objectives. The ARCH QA committee was also responsible for conducting the NCAAA Re-Accreditation Self-Study process and writing the ARCH SSR in 2015.

Assessment and self- evaluation are participatory activities in which all faculty members participate in evaluating the program to help in enhancing its performance and improving it continuously. The evaluation includes rating the program on each of the quality standards and sub-standards set by the national accrediting body, giving explanatory notes on these ratings, collecting related evidence to support these ratings, producing a narrative that reports on the status of the program based on the analysis of this evidence and all relevant KPIs, and then finally list all recommendations of improvement and action plans for achieving these recommended developments. The latest holistic assessment done for the purpose of undertaking national accreditation included the comparison between the self-study evaluation scale that was done in 2009-2010 and the latest one done in 2014- 2015. The resulting notes fed into development plans and informed the procedures required to enhance regular practices and regulations. Throughout the process, the committee aimed at reviewing the Architecture Program's deliverables and worked on the necessary changes and improvements. The figure below illustrates the QA Committee organizational chart with its sub-committees in 2018- 2019, and the members of each committee within the Architecture Program.

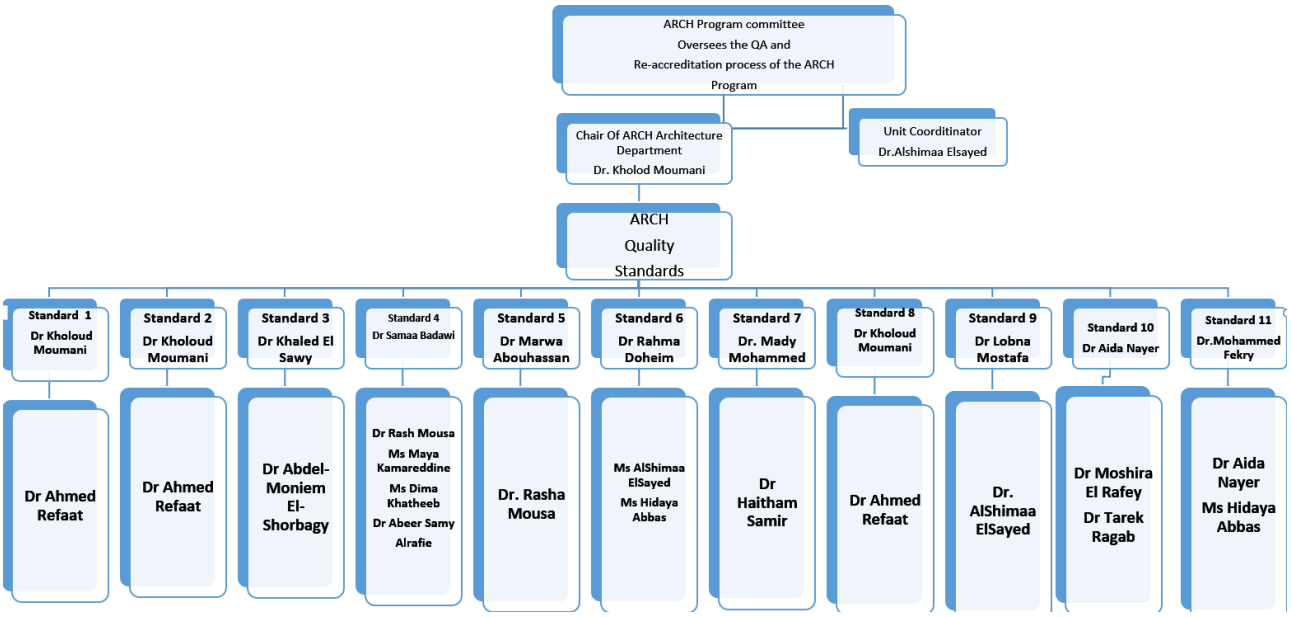


Figure (14) Formation of the Quality Assurance Committee (2018-2019)

And now we received the new development in the standard by NCAAA and that accordingly it is expected that the goals and committees will be revised accordingly in future to reflect this new update starting 2019-2020.

In addition to the SSR, the ARCH Department produces each semester a Semester Activities and Quality Report (SAQR) that also acts like a self-study of the program. The data documented in the SAQR each semester are essential to monitor and evaluate the performance of the program from all aspects. The QA committee in the ARCH Department, headed by the Chair of the Department, Dr. Samah Al-Khateeb, also monitors the teaching strategies in each course to ensure applying the student performance criteria of the NAAB in the course Intended Learning Outcomes (ILOs). In addition, the QA committee reviews the results of the institutional surveys (please see the section below) to prepare improvement plans and implement them accordingly. The QA committee was also involved in producing the application report presented to NAAB as well as the present APR. Members of the QA committee helped in collecting the institutional information that is used to support the data presented in the application and APR. In addition, the QA committee has prepared the initial text for the NAAB application, responses to NAAB report and current APR. Further review was done by the Dean of the ECoAD, and the Dean of QA and endorsed by the Provost and President of Effat University.

A. Curricular Assessment and Development

The Architecture Program at EU is the first department that offers an accredited program in architecture for female students in KSA. This is an advantage that could be considered a strength, especially with the good recognition the department has acquired within the local community. Below is an illustration (figure. 6.) of how the program is regularly assessed and developed.

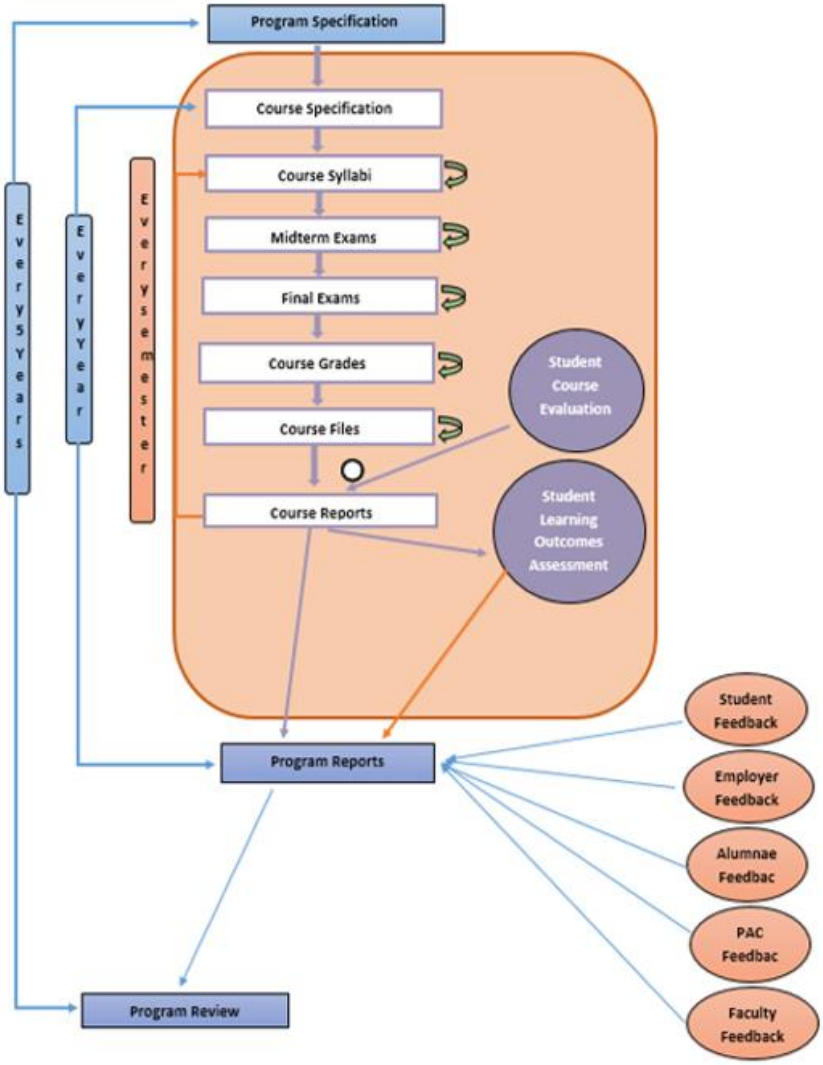


Figure (15) Program Review Process

In order to ensure that the quality of teaching and learning is continuously improving, the program evaluation and review processes follow a 5-year cycle and one-year cycle. However, the courses are evaluated every semester in order to assess the effectiveness of the teaching strategies, the assessment tools used in the course and the courses' specifications.

Faculty members report about each course they teach based on their course delivery and students results in their course report. At the end of each academic-year, the Chair of the ARCH department also reports on the program performance, through the Program Annual Report, based on the course reports received over the two semesters in the annual program report.

An action plan section at the end of the program report addresses problem areas and their possible solutions. The annual program report is approved by the Dean of the ECoAD and by the Provost. The Deanship of Quality Assurance has access to those documents in order to further review them. The Dean, Provost and Quality Assurance then send feedback about any comments, extra explanations or changes. In addition to those reports, bi-weekly meetings are held at the departmental level with faculty where several issues and topics are discussed including review of the delivery of courses and the needs for curricular improvement**.**

Students' feedback is very important for the program as well. Students evaluate their courses at the end of every semester and the results of the courses evaluation are compiled and added to the course report, the annual program reports and the SAQR which is submitted at the end of every semester. At the institutional level, student experience surveys are conducted for all students (Student Experience Survey, SES) and for senior students upon their graduation (Program Experience Survey, PES) and their feedback is incorporated in programs reviews. Faculty and Staff evaluations are solicited every Spring semester through the Faculty and Staff Survey (FSS).

Employers of internship students and alumnae are also surveyed to incorporate their feedback as well as the Program Advisory Committee members who comprise external reviewers who are professionals as well as academics and alumnae. The department also received annual report from their academic partner following their annual visit. Further reviews are conducted during the 5-year annual review by academic partners national and international to ensure that the program is updated to reflect the national needs as well as international educational and professional needs.

All the results of the above review processes help to produce action plans for improvement that are followed up and implemented to enhance the curriculum of Architecture Program and upgrade the services offered by the department to its students, faculty and staff to raise the satisfaction levels of all stakeholders, internally and externally.

PART ONE (I): SECTION 2 - RESOURCES

I.2.1 Human Resources & Human Resources Development

Effat University Community

Effat University is a community, known among its members as "Effat Family", which promotes social equity and strives to create an atmosphere free of bias and prejudice in order to prepare students to lead successful and socially useful lives in a diverse society. This sense of belonging to a family stems from a deeply-rooted religious and ethical belief that all people are coming from the same origin and created equal. Thus, they are all worthy of respect regardless of their background, color, ethnicity, religious belief, age or gender. People are only evaluated based on the value they bring to their own communities and the world. In addition, there is great emphasis on the cultural norms and values of the society in which Effat students exist. This is yet another aspect of the respect of the self and others that all Effat students, including those of the Architecture Program, learn to uphold as part of their IQRA Values. For more information, please refer to Effat's IQRA Core Values.

https://www.effatuniversity.edu.sa/English/About/Why-Effat/Pages/IQRA_Core_Values.aspx

The following constitute the principles of being part of Effat Community (Effat family) as expressed by Effat students, faculty and staff:

Our Principles of Community state that:

- As members of Effat family, we choose to be part of an academic community dedicated to those principles that foster personal and professional integrity, civility, and tolerance.
- We strive toward lives of personal integrity and academic excellence. We will encourage in ourselves, and in one another, those responsible actions that lead to lives of productive work, personal enrichment, and useful citizenship in an increasingly interdependent world.
- We commit to treating one another with civility. Recognizing that there will be differences of opinion. We will explore these differences in a courteous and forthright manner.
- We support tolerance and moderation. We encourage those of all backgrounds to understand and respect one another in a safe and supportive educational environment.
- We empathize that Islamic values that encourage respect, tolerance and love among all should be reflected in our thoughts and actions on and off campus.

This set of principles is supported by policies laid clearly in Effat Ethical Code of Conduct (also known as Tarbawyyat Effat).
https://www.effatuniversity.edu.sa/English/About/Why- Effat/Documents/Effat-Tarbawyyat.pdfc

'Tarbawyyat' (تربويات) is the name of the pillars that make up Effat University Code of Ethical Conduct. Tarbawyyat is derived from the Arabic word for 'educate'. Tarbawyyat is the plural of (تربية), which is associated in Arabic with educating human beings to a standard of manners and equipping them with the necessary knowledge and skills to lead a successful role in the communities they inhibit. Inspired by this all-inclusive holistic noun, Effat University adopted eight fundamental pillars into what it refers to as Tarbawyyat Effat: (Ṭaqwã) Piety, (Ādab) Knowledge, Manners and Outreach, (Ricayya) Nurturing, (Bunyan Marsūs) Cooperation and Collaboration, (Wasaṭya) Tolerance and Moderation, (Yusr) Modesty and Ease, (Amanah) Ethics and Integrity, (Tawğyh) Guidance.

Social Equity

The University and Architecture Program exercise all its affairs with great consideration of fairness and equity and yet with consideration to students of special needs. For example, the program is available for all national and international students with no prior qualifications other than academic standards/merits. In addition, the tuition fees, for undergraduates or graduates, are the same for all registered students, national or international. On the other hand, the program offers responsive environment to the needs of students with physical disability, and assistance to students is offered when needed and according to the university regulations for "students with special needs".

Diversity

A diverse body of students and faculty is the cornerstone of a rich and meaningful educational experience. One of the goals of the 2017-2022 strategic plan of Effat University is to "attract and retain a diverse body of students", as the institution strives to enrich its programs and continually increase the diversity throughout Effat University. As the diversity of the student body expands through increased recruitment of national and international students, resources are dedicated to ensure expansion of recruitment efforts. In Spring 2019, the percentage of international students increased to 16% instead of 13.22% in Spring 2018 and 14.48% in Fall 2018. In addition, the university and all its programs, including the Architecture Program, offer courses, services and events that are designed to increase the students' awareness and respect of such diversity on campus. For example, during the International Day held every year, all Effat students, including the Architecture Program students, celebrate their diversity by sharing their histories, traditions, costumes, dishes, songs, etc.

Diversity of the faculty body is also another facet of celebrating diversity on campus to enrich the educational experience of the students. Faculty searches are charged with selecting the individuals who will contribute significantly to the academic mission and the goals of the department, college and ultimately Effat University regardless of their ethnicity or gender. This is done through extensive notifications, national and international searches, targeted advertisements and involvement of professional colleagues. Good faith efforts are made to locate and consider a wide and diverse pool of applicants, including male and female, national and international faculty. Faculty Professional Development is also ongoing to enhance and support diversity of teaching and learning methods in the classroom as well.

ARCH Faculty Profile

The recruitment process is an integral part of the ARCH program's efforts to ensure high quality teaching and learning to its students. It starts with a clear mapping of the qualifications required for each course delivered under the program and the program's recruitment plan based on the students' and faculty needs forecasts for the 5-years period of the strategic plan. As for faculty needs, forecasts are made part of the institutional plan and are evaluated annually against the actual and the projected numbers of students and of faculty in order to ensure that the teaching needs for each academic year are effectively met.

The following table shows the composition of the faculty and teaching staff of the Architecture Program up to Spring 2019.

Table (21) Architecture Program Faculty Profile from Spring 2016 up to Spring 2019

Semester	Total no of Faculty	Full Professor	Associate	Assistant	Lecturer	Instructor	Full-time	Part-time
Spring 2016	36	4	4	18	5	5	30	6
Fall 2017	35	3	3	17	8	4	26	9
Spring 2018	37	3	4	21	7	2	30	7
Fall 2018	37	4	3	21	6	3	27	10
Spring 2019	34	5	3	19	5	2	27	7

The Architecture Program has a high retention rate for faculty as the proportion of teaching staff leaving the institution in the previous three academic years (i.e. 2016-2017, 2017-2018 and 2018 -2019) were only 10%, 3.45% and 9% respectively. Since the second visit in 2017-2018, the Architecture Department increased the number of visiting lecturers in the design studios.

Faculty Resources

All faculty are provided with their own private offices, well-equipped studios, classrooms and labs with all the appropriate teaching and learning resources. They are also provided with research resources through the Effat Library and research labs to support them in their research work. Faculty members also benefit from professional development opportunities, internally and externally, in order to help them develop their teaching and professional skills. Professional development activities include attending workshops, conferences and training sessions related to developing their teaching skills and/or becoming updated about their field of study.

The ARCH faculty and staff are involved in offering and receiving professional development. Management of Human Resources, the Center for Excellence in Teaching and Learning and the Architecture Department are supporting professional development plans. For research, continuous support is offered to the faculty by the

Deanship of Graduate Studies and Research (DGSR) to enable them to increase their publications and participation in conferences; travel grant is offered to faculty upon application. The following tables show some of the internal and external professional development opportunities provided to Effat University faculty, including Architecture Program faculty, to enhance their teaching and learning skills as well as research participation in conferences and architecture related activities:

Table (22) Examples of Professional Development Activities Offered to Faculty During Fall 2018

Event	Workshop Content	Description	Date	Timing Reason	Main Speaker
Fall 2018 Opening Faculty Meeting			September 3, 2018	Preparing faculty for the new academic year	Dr. Malak Alnory
Effat External Award Orientation			September 9, 2018	Preparing faculty for the new academic year and application to awards	Dr. Walaa Hassan
New Faculty Induction Program Day 1	• Welcoming • Human Resource Services • Empowering Student Success • Quality Assurance at Effat University • We Innovate! • Testing Center	Familiarize new faculty with Effat university	September 6, 2018	The start of the semester and academic year	Ms. Sara Ghieh Dr. Malak Alnory, Ms. Tamara Saleh, Dr. Malak Abunar, Dr. Ahmad Attia, Dr. Akila Sarirete, Ms. Iman Al-Marawi,
New Faculty Induction Program Day 2	• Faculty Forms • Library Resources	Familiarize new faculty with Effat university	September 10, 2018	The start of the semester and academic year	Dr. Eman Mohammed Ms. Mashael Al-Zahrani, Ms. Shaheda Banu
New Faculty Induction Program Day 3	• University Facilities • Introduction to the Banner System • IT Services • Blackboard	Familiarize new faculty with Effat university	September 12, 2018	The start of the semester and academic year	Dr. Amani Gandour Ms. Moodi Alsaib, Ms. Nesreen Al-Fahal Ms. Fatma Jawi Ms. Sara Ghieh
Promotion	Promotion Guidelines	Promotion guidelines	October 1, 2018	Before promotion process starts	Ms. Saly Bannani/ Dr. Tarek Ragab
Promotion	Promotion System	Promotion system	October 3, 2018	Before promotion process starts	IT Staff
Technical Workshop	Mastering Blackboard	Calculating weighted grades, Integrating the Attendance in the grade book, Creating discussion	October 15, 2018	To process mid-term grades	Ms. Sara Ghieh

		group, making announcement through black board through email.			
Quality Assurance Workshop	Requirements of Program Registration for SAQF	Introduce the new system of registering into SAQF to all faculty	October 22, 2018	Introduce the new system of registering into SAQF to all Chairs before registration launches in second semester	Dr. Eman Mohammad
Advising Workshop	Advise Guidelines	why advising students, advising process and the advising circle, important forms and documents	October 29, 2018	Before spring Semester 2018 Advising week	Dr. Amani Gandour
Advising Workshop	Advising system	Guidelines for using the system	October 31, 2018	Before spring Semester 2018 Advising week	Ms. Nesreen Al-Fahal
Research Policy	DGSR	What are the research policies, research centers and research support provided to faculty	November 12th, 2018		Dr. Akila Sarierte
IQRA Teaching & Learning Model	IQRA	Guidelines for using the system	October 31, 2018	Before spring Semester 2018 Advising week	Dr. Malak Al Nory
Best Practice in Higher Education	Best Practice in Higher Education ,Georgetown University	A discussion about the best practices in higher education	November 26, 2018	Georgetown University visiting week	Georgetown University's delegations
Testing Center Workshop	How to Have Successful Final Exams	How to approach the finals exam writing and conducting exams	November 21, 2018	Before Final Exams cycle begins	Ms. Iman Al-Marawi,
Testing Center Workshop	The Art of Proctoring and final exams process	Final exams policies and procedures, cycle of daily final exams administration, main and assistant proctors, violation and cheating, Final exams proctoring and venues schedule , and Understand Effat's final examination process	November 28, 2018	Before Final Exams cycle begins	Ms. Iman Al-Marawi,

Table (23) Examples of Professional Development Activities Offered to Faculty During Spring 2019

Event	Workshop	Description	Date	Timing reason	Speaker
HEA Workshop	Advanced Techniques for Higher Education	Jan 6th-Jan.10th, 2019	Jan 6th-Jan.10th	Introduce faculty to HEA fellowship	Dr. Julie

Dr. Sadiq Seit's Workshop	Hard Problems in Computing	Interdisciplinary Research	February 6th, 2019	Introduce faculty to new problems	Dr. Sadiq Seit
Dr. Rick Deitwiler's Workshop	Liberal Arts and Islam	Importance of Liberal Arts in Education today	February 7th, 2019	Rick's visit to Effat	Dr. Rick Deitwiler
Dr. Yoshio Yamamoto's Workshop	Research in Robotics	Introduce COE faculty to state of art in Robotics research	February 11th, 2019	Tokai University visit to Effat	Dr. Yoshio Yamamoto
Dr. Paul Gandel, Dr. Sarah Inaoue, Dr. Yoshio Yamamoto' Workshop	Best practices in Higher Education	State of the art practices in teaching	February 13th, 2019	Syracuse and Tokai University Visit	Dr. Paul Gandel, Dr. Sarah Inaoue, Dr. Yoshio Yamamoto
NCAAA Annual Program Reports Workshop	NCAAA Annual Program Reports Workshop	Sharing updates in the NCAAA Annual Program Report Forms (2019)	25th of April	Before Chairs produce their Annual Program reports for 2018-2019	Dr. Malak Al-Nory

The following table also shows samples of the external professional development opportunities provided to the faculty of Architecture Program in Fall 2018 to enable them to attend conferences and architecture-related activities.

Table (24) Examples of Professional Development Activities Offered to Faculty During Fall 2018

College	Department	Faculty	Requested Dates		Conference	Professional Development Leave	Type
ECoAD	ARCH	Dr. Mervat El-Shafie	Sep 26th , 2018	1 Day	Alula Governorate	Approved for paid leave	Business
		Dr. Tarek Ragab	Sep 26th , 2018	1 Day		Approved for paid leave	Business
		Dr. Moshira Elrafey	December 11th-13th, 2018	3 Days	SASG Grid Conference	Approved for paid leave	
		Dr. Deborah Middleton	November 14th- November 17th, 2018	3 Days	Dubai Design Week	Approved for paid leave	
		Dr. Deborah Middleton (COA)	December 4th – December 7th, 2018	4 Days	International Green Urbanism Conference	Approved for paid leave	

Faculty Time Management

The job description and faculty contract specifies the credit workload assigned to each faculty and teaching staff depending on their academic rank. For all professors and associate professors' ranks, the teaching load should not exceed 14 credit-teaching hours per semester. For assistant professors rank, the teaching load should not exceed 16 credit-teaching hours. Lecturers are assigned a maximum of 18 credit- teaching hours per semester. At the beginning of every semester, the course distribution ensures that ARCH faculty members and teaching staff are not overloaded with teaching in order to invest part of their time for research activity and career development. In addition, some

faculty may have workload reduction whenever they have an approved research or project grant to work on, for example Dr. Khaled El-Sawi, Dr. Rahma Dohiem ,

All faculty have to post an approved work schedule of 40 hours per week on their office door. This includes course load, office hours (10 hours) and committee work, student advising etc. Every faculty is assigned about 20 students whose progress has to monitor and advice in matters of performance, attendance, course prerequisites, learning, future career, etc.

The convention has been for theory courses (3 contact hours) to be delivered in 2 separate sessions on separate days. A 2-hour lecture class is followed by 1- hour tutorial and group discussion on the lecture material on a separate day. For studio classes, the total contact hour per week should be not less than 10 hours. The rest of the time of the faculty is to be dedicated to his research work and community in the way he likes. The following is a sample of the workload of faculty at the Architecture Program:

Effat University

Faculty Time-Table

FACULTY NAME: DR. MOHAMMED FEKRY MAHMOUD **SEMESTER:** FALL2018

COLLEGE: ARCHITECTURE & DESIGN **DEPARTMENT:** ARCHITECTURE

Time/Date	Sunday	Monday	Tuesday	Wednesday	Thursday
8:00-9:00	ARCH 572-03 08:00 - 10:50 (CoAD210A)	Adm. Duties (Coordinator of EUCAAD)	ARCH 572-03 08:00 - 10:50 (CoAD210A)	Adm. Duties (Coordinator of EUCAAD)	ARCH 572-03 08:00 - 11:50 (CoAD210A)
9:00-10:00					
10:00-11:00		Adm. Duties (Chair of UPAC)		Adm. Duties (Chair of UPAC)	
11:00-12:00	ARCH 571-04 11:00 - 12:50 (CoAD241A)	Office Hours	Office Hours	Office Hours	
12:00-1:00		Dept./College Council	ARCH 571-04 12:00 - 12:50 (CoAD241A)	UPAC/Scientific Council	ARCH 571-04 12:00 - 12:50 (CoAD241A)
1:00-2:00	ARCH 571-04 1:00 - 1:50 (CoAD244A)	UD641 1:00 - 3:50 (CoAD109A)	ARCH 571-04 1:00 - 1:50 (CoAD244A)	Adm. Duties (Community Service Committee)	ARCH 571-04 1:00 - 2:50 (CoAD244A)
2:00-3:00	Office Hours		Office Hours	Research Activities	
3:00-4:00	MSUD (Bahiah Bardeesi)		MSUD (Salwa Samargandi)	Research Activities	MSUD (Lubaba Fakieh)

Faculty Signature Date Department Chair Date

Comments:

Approved by:

Dean's signature Date

Figure (16) Example: Faculty Timesheet for Weekly Workload Posted on the Door of Faculty Office.

Faculty Promotion Based on Effat Promotion Guidelines (2016/2017)

The purpose of Faculty promotion is to recognize the achievements and professional development of Faculty, and their demonstrated capacity to contribute to the mission of the Department, College and University by undertaking duties at a higher level than their current appointment. Applicants are required to provide the relevant Ad-hoc Promotion Committee with a file or dossier containing all the necessary documentations.

Criteria for Promotion

Faculty members applying for promotion will be evaluated on the basis of the following:

1. Teaching (25 points)
2. Research and Scientific Contributions (60 points)
3. University, Departmental and Public Service (15 points)

While University, Departmental and Public Service should be recognized and encouraged, high quality teaching and research are of primary importance and are indispensable qualifications for promotion to higher professorial ranks.

1. Teaching

A candidate for promotion is required to demonstrate his ability to teach effectively in addition to his other responsibilities. The following factors and criteria are to be considered in the evaluation of teaching performance:

A. Demonstrated competence in the subject matter in classroom;
B. Helping students become effective communicators, independent learners and critical thinkers;
C. Mentoring undergraduate research projects and challenging and guiding individual students to reach their full potential;
D. Effective public presentations (e.g. colloquia, seminars, symposia, short courses, conferences, etc.), demonstrating leadership in the educational sector;
E. Effectiveness in the development and use of innovative methods and materials for teaching that enable student learning;
F. Guidance and leadership in students' academic activities;
G. Initiation and participation in curriculum development (e.g. new courses, new programs, etc.).
H. Effectiveness in the development and use of Instructional Laboratories (if applicable).
I. Level of participation and effectiveness in the executive education programs.
J. Effectiveness in supervising Summer Training and Coop Programs (if applicable).
K. Fulfilling teaching load, appropriate for the individual's position.
L. Book authoring

Information regarding these aspects of the candidate's teaching performance can be sought from his chair, peers, students (preferably senior), alumni and course files. It is noted that student's evaluation should not be accepted without qualification. It may serve, however, as an indicator of competence. It is not to be used as an absolute and final measure of the teaching performance. It is expected that each faculty member maintains course files that include the syllabi, outlines of materials covered, homework, lab assignments, exams, and other pertinent information. Such files should be made available to the committee on request. In the case of multiple-section courses where a number of instructors are involved, the input from the coordinator may also be sought through the Chair of the Department. In judging the effectiveness of the candidate's teaching, the committee shall consider the candidate's command of his subject; his continuous growth in his field; his ability to organize and present his materials with clarity and force; his capacity to awaken in students an awareness of the relationship of his subject to other fields of knowledge; his grasp of general objectives; the spirit and enthusiasm which vitalize his learning and teaching; his ability to excite intellectual curiosity in new students and to stimulate advanced students to original work; his personal attributes as they affect his teaching, his students, and his colleagues; and the extent and skill of his participation in the general guidance and advising of students.

2. Research and Scientific Contributions

It is a truism that the quality of teaching at the University and the viability of its graduate programs are directly related to the quality of research and scholarship of its faculty. Consequently, the university shall promote those members of faculty who are actively engaged in research and creative scholarship of demonstrable quality.

It is acknowledged that measuring scholarship and the resultant effectiveness of the candidate is a task fraught with difficulties. However, the aim is a fair evaluation of the depth of scholarship, which is directly correlated to the degree of creativity and significance of the research work undertaken. It is also related to the scholarly stature and effectiveness of the researcher in question. Evidence of creative research should be sought in the candidate's published research in refereed journals, conference proceedings, monographs, technical reports or in original, professional work such as architectural and engineering designs, and computer software.

In published scholarly work, a key ingredient is significance rather than volume. A judgement can be made by examining the quality of the journals in which the publications appeared, the use which other researchers make of an individual's publications, or by requesting testimony from other distinguished workers in the field. Since the task of choosing reviewers is rather critical, extra care is needed in the selection of peers who should be asked to evaluate a candidate's research accomplishments. Contributions in the area of coordination of knowledge such as survey articles and books are evidence of effective scholarship. Other evidence in this area includes supervision of master and doctoral theses. Moreover, articles, textbooks, reports, and similar publications normally considered as contributions

to the professional literature or the advancement of professional practice or of professional education, should be judged as evidence of effective scholarship especially, when they present new ideas or incorporate scholarly research. Evidence of scholarly stature may include service on the editorial boards of scholarly journals; invitations to give keynote addresses in conferences or symposia; membership in technical committees of international national conferences; acting as a reviewer for scholarly journals, conferences, symposia, books, and technical reports; prizes and awards received; and high level consulting work. Confidential and secret reports, software or prototypes may be evaluated by an ad-hoc committee of cleared university personnel of higher rank than the candidate. This committee shall report its findings to the internal promotion committee.

3. Journal Publications Recognized for Promotion

To ensure the quality of research for promotion, only research publications published in the following categories of journals, specified for the Effat College of Architecture and Design will be considered, without any exception:

- Only ISI listed journals shall be considered for promotion and those approved by the Scientific Council.

4. Departmental, University and Public Service

The faculty plays an important role in administration within the University and in the formulation of its policies. Recognition shall therefore be given to scholars who prove themselves to be able administrators and developers of their respective departments and who participate effectively and imaginatively in Departmental, College, and University committees. Service rendered by members of the faculty to the local community and the Kingdom, both in their special capacities as scholars and in areas beyond these special capacities when the work done is at a sufficiently high level and quality, shall likewise be recognized in the promotion process. These may include organizing short courses, national/international conferences, seminars, workshops, technical projects, authoring articles for the general public, translations, etc. Contributions might also include identifying industry needs and elaborating coherent training programs in some areas of expertise, as well as establishing a link for technical cooperation between Effat and other institutions in specific areas of expertise. Similarly, contributions to the students' welfare shall also be recognized and considered.

The following figure shows the summary of the promotion process set by Effat University. Please refer to the Effat Promotion Guidelines for the detailed process (Figure 1.a on pp 65-66)

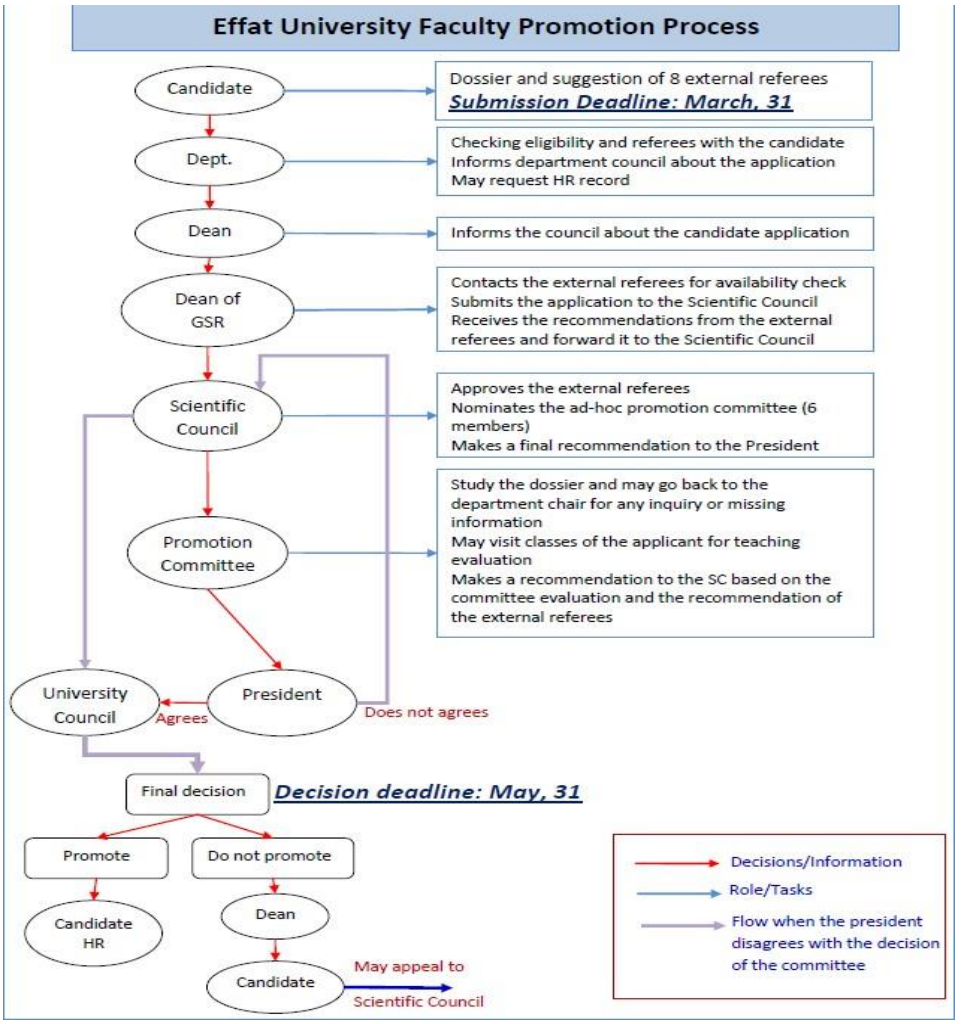


Figure (17) Summary of the Promotion Process at Effat University.

The following minimum qualifications are required for all professorial ranks of the Effat faculty, including Architecture faculty. For research, the minimum qualifications are determined on the basis of a specific number of "units". A scholarly work is to be counted as "1 unit" if it is single authored; "1/2 unit" if it has two authors. If the research was carried out by more than two individuals, it will be regarded as "1/2 unit" for the principal author and "1/4 unit" for each of the others. If another collective work is considered for promotion, then it will count as "1/4 unit" for each researcher. For journal papers, only those published in the journals specified are considered for promotion. It is understood that the minimum qualifications are necessary but may not be sufficient for promotion unless they fully satisfy the evaluation criteria for promotion.

Degree Requirement

Earned Ph.D., or equivalent degree, in the subject area from an institution whose graduate programs correspond to those of reputable universities, is required for all professorial ranks. However, in certain fields of study and in special cases, exceptions can be made (Article 12 of the "Unified Regulatory Charter for Saudi Faculty and their Equivalence"). Ph.D. degrees obtained by correspondence, during breaks/vacation periods, and through continuing education courses are not accepted as equivalent to an earned Ph.D. degree.

Assistant Professor

A candidate for this rank must show promise of successful research performance. Publications resulting from his Ph.D. Dissertation may be accepted as evidence of such promise. In addition, it is desirable that he has some teaching experience at the university level.

Associate Professor

Four or more years of successful teaching and research at a recognized University, subsequent to attaining the requisite degree, are required; of which at least a one- year service in a Saudi University is required. For candidates with an industrial or professional background, the time requirement of combined university teaching and pertinent experience after the completion of the doctorate or equivalent degree is given in section "special cases" below. An Associate Professor should demonstrate mature and independent scholarship. Research and other scholarly activities should indicate creativity, significance and effectiveness. The candidate for promotion must satisfy the following minimum requirements in Research and Scientific Contributions:

Four published and/or accepted-for-publication units; two of these units, at least, must be single authored (exceptions to single-authorship in some fields will be determined by the University Council). In determining the minimum number of units, the following categories and rules should be considered:

1. Papers in internationally recognized refereed journals; a minimum of one unit is required.
2. Papers in refereed proceedings in international conferences and specialized symposia; a maximum of one unit is accepted.
3. Refereed, published, or accepted-for-publication technical reports from specialized university research centers; a maximum of one unit is accepted.
4. Refereed textbooks and reference books; a maximum of one unit is accepted.
5. Refereed authentication reviews of rare books; a maximum of one unit is accepted.
6. Refereed translations of specialized scientific books; a maximum of one unit is accepted.
7. Refereed books and research reports published by scientific societies/authorities approved by the Scientific Council; a maximum of one unit is accepted.
8. Inventions and intellectual properties that have patents from recognized patent agencies approved by the University and commercialized products.
9. Distinguished creative activities according to a basis recommended by the Scientific Council and approved by the University Board; a maximum of one unit is accepted.

In determining the minimum number of units, it must be ascertained that Research and Scientific Contributions were published or accepted-for-publications while the candidate was at the rank of Assistant Professor.
Furthermore, it must be ascertained that material submitted for consideration for promotion must have been published or accepted-for-publication in more than one publication channel (i.e. different journal publishers and different university and scientific establishments). It shall also be ascertained that materials submitted for consideration are not exactly extracted from the candidate's MS thesis, PhD dissertation or previous publications.

Professor

Eight or more years of successful teaching and research work at a recognized University subsequent to attaining the requisite degree are required. For candidates with an industrial or professional background, the time requirement of combined university teaching and pertinent experience after the completion of the doctorate or equivalent degree, with at least four years of teaching is considered as "special cases". Candidates applying for promotion to this rank must have at least four years of service in the Associate Professor rank, of which at least a 1- year service in a Saudi University is required. Bestowal of this rank indicates a recognized scholar of authoritative reputation. It indicates that the individual has demonstrated substantial scholarly achievement, and his work in a given discipline is widely known and respected. In promotion to this rank, contributions in teaching and service are important, however, the main emphasis is on research and scholarly achievements, without which a candidate cannot be promoted to the rank of Professor regardless of his contributions in teaching and services. Thus all candidates to this rank must demonstrate that their research achievements have had a recognized impact on the advancement of knowledge in their subject area. The candidates for promotion to this rank must satisfy the following minimum requirements in Research and Scientific Contributions:

Six published and/or accepted-for-publication units; three of these units, at least, must be single-authored (exceptions to single-authorship in some fields will be determined by the University Council).

In determining the minimum number of units for promotion to the rank of Professor, the same nine categories of scholarly activities listed in Associate Processor section above (i.e. items 1 - 9) and the unit maxima for each category are applicable. However, for consideration for promotion to this rank, a minimum of two units in category "1" (i.e. refereed journal papers) is required.

In determining the minimum number of units, it must be ascertained that Research and Scientific Contributions were published or accepted-for-publication while the candidate was at the rank of Associate Professor.

Furthermore, it shall be ascertained that materials submitted for consideration must have been published or accepted for publication in more than one publication channel (i.e. different journals and different university and scientific establishments). It shall also be ascertained that materials submitted for consideration are not exactly extracted from the candidate's MS thesis, PhD dissertation, or previous publications.

The promotion process is available in the Effat Promotion Guidelines which details all the steps, forms and requirements. The faculty are also oriented about it every year nearer the time of application. In addition, the process of promotion was automated in 2017-2018 to simplify the process for all faculty members and ensure its effectiveness.

Sabbatical Leave Policy

The main objective of sabbatical leave is to provide Effat faculty with a change of atmosphere in order to pursue scholarly activities and to furnish a better environment for academic recuperation and rejuvenation.

Scholarly activities that are considered for sabbatical leave may include pursuing and extending some ongoing research, initiating research in new and diverse areas, working in industry in the area of research and development, gaining research-oriented experience or creating an architectural/engineering design or product, and, finally, writing a research-oriented book or monograph. During a sabbatical leave, the faculty member is expected to interact with academics and/or researchers at other institutions with the purpose of developing his expertise. The faculty member is also expected to contribute to the published literature in the field via reputable journals. In general, faculty members on sabbatical leave are encouraged to attend scientific meetings and conferences, and to present seminars at host institutions as well as nearby institutions.

According to EU policy # EU 4010, a full time faculty may apply for a 6-month Sabbatical Leave after serving the university for a minimum time of 3 years, and a faculty may apply for a sabbatical leave for a whole academic year after serving the university for a minimum time of 5 years. A department can have only one faculty on a sabbatical leave in any one academic year and the frequency of granting faculty a sabbatical leave is managed by the department according to its "Research Strategic Planning".

In year (2016 -2017), Dr. Mohamed Shokry received approval on his Sabbatical leave application (2017-2018) from the Scientific Council and then was submitted to Effat University Council for final approval. The applications were reviewed and the preference was made based on the policies mentioned above as well as on satisfying the following criteria:

1. The number of years the applicant has served the university
2. The annual evaluation of the applicant over the years of service
3. The relevance of the research to the interest of EU

In the year 2018-2019, Dr. Rahma Mohammed Submitted her Sabbatical leave application (2019-2020) and received approval from the Departmental Council, and then was submitted for the College Council for approval, and to be followed by the Scientific Council and then to Effat University Council for final approval.

Students

Effat University is open to applicants from all qualified high school graduates, and transfer students from universities recognized by the Saudi Ministry of Education. The admission to the ARCH program follows Effat University general admission criteria in accordance with Articles 3 and 4 of the **Effat University Bylaws for Undergraduate**

Study and Examination, in addition to some additional requirements for entry to the ARCH program. All applicants are treated equally and final admission is decided upon an interview with the Admissions & Academic Standing Committee including the department chair, the dean of the college, and student affairs dean. For more information about ARCH program admission please refer to; https://www.effatuniversity.edu.sa/English/Academics/Undergraduate/CoAD/Pages/ARCH.aspx

The admission procedures and requirements are also stated in the University **Undergraduate Catalogue**. Printed copies of the undergraduate catalogue are available to all students. In addition, it is accessible from the university website at https://www.effatuniversity.edu.sa/English/Academics/Catalogues/Pages/default.aspx
Effat University offers Scholarship Competition for Undergraduate and Graduates Programs. It opens its doors to gifted, talented and academically excellent candidates who should submit a portfolio of their achievements to qualify for a full or partial scholarship.

Student Advising and Counseling

Each student in the ARCH program has an academic advisor whose job is to provide students with consultation and academic support mainly during registration time but also any time during the semester. Students may consult their advisor, as well as the Department Chair and the Dean of the College, for any issues or concerns concerning their academic life. Given the number of the ARCH students, the students are divided among the ARCH faculty for advising.
As for career development, Effat University has a Career Development Office (CDO) that helps students in writing CVs, taking interviews, finding internship placements, and finding jobs. However, this office is not specialized in any field of study because the service is offered to all university students. Thus, the program academic advisor also acts sometimes as the student career advisor; however, Effat students are used to consulting the Department Chair for career issues. It is believed that this is a very important support to help students look for the right employer and the right career.
Effat's Career Development Office (CDO) aims to help students and alumnae to become leaders of the future and exceptional career women by preparing them for future employment and graduate studies. The CDO helps the students to gain broader exposure to opportunities beyond Effat University. Additionally, it helps students gain access to opportunities for learning and community service, with emphasis on internships. The CDO also helps students to write their CVs and cover letters and prepares them for interviews. The CDO also keeps a list of job opportunities for alumnae with a career counseling service and announce new ones as soon as received. Sometimes it helps run job interviews at Effat campus for certain companies upon request. It also helps graduates apply for full-time/part-time jobs or their transition between jobs. The CDO usually shares students' CVs database with potential employers.
Both the institution and the program have several channels for getting student feedback on their satisfaction with their learning experience. These are satisfaction surveys, focus groups, chat cafés, Tea with Faculty, Tea with Alumnae and meetings with the President at the institutional level, as well as program surveys and open-door policy at the program level. Moreover, the Student Government organizes a yearly students' meeting with the Provost to communicate their problems and concerns. All of those channels of communication provide valuable feedback that is useful to improve the program and its services while considering students' needs. Students are involved in Student Life activities as part of the Effat Ambassadors Program. Every student needs to acquire 50 value points by taking part at the various co-curricular activities and by attending EAP's workshops (provided by the Enhancement Center Office). These points are count towards 5% of the grade for every course taken in the semester.
In light of the IQRA values, all students at Effat University, and the ARCH Department, enjoy a holistic approach to education, which provide them with an opportunity to develop personally, socially, academically, and professionally. The Effat Ambassadors Program (EAP) aims at producing Effat Ambassadors that will become the future leaders in their communities. The program equips students with relevant competencies and soft skills through the participation and involvement in both co-curricular and extra-curricular activities to make them Effat Ambassadors. Being an "Effat Ambassador" means that the student learns to lead a meaningful life; become an

engaged citizen with an enhanced desire for life-long learning; focus on achievements and possession of vision and wisdom to excel. Sample of the students' EAP transcripts including the events they share in per semester are provided. Besides the departmental advising support, academically challenged students are provided extra educational assistance from the Deanship of Student Affairs through ESP (Educational Support Program). Such students are registered in this regular program to improve their skills particularly in English and Math by running dedicated classes. More information about ESP program can be found in the university website (https://www.effatuniversity.edu.sa/English/Student-Life/Why-Choose-Effat/Enhancement-Programs-and-Centers/Pages/default.aspx)

The Office of the Provost has prepared an **advising manual** that is used by all the academic units and which is available on the intranet for all faculty. This manual summarizes the main steps in the academic advising that supports academic advisors in the implementation of academic regulations as provided in the **Effat University Study and Examination Bylaws**. In 2017-2018, the advising system was automated through the Banner System to help improve the quality of advising and minimize errors in advising and scheduling. An Advisor User Manual was also developed to orient all faculty to the automated system process. The following figure shows the summary process followed in advising Effat Architecture Students.

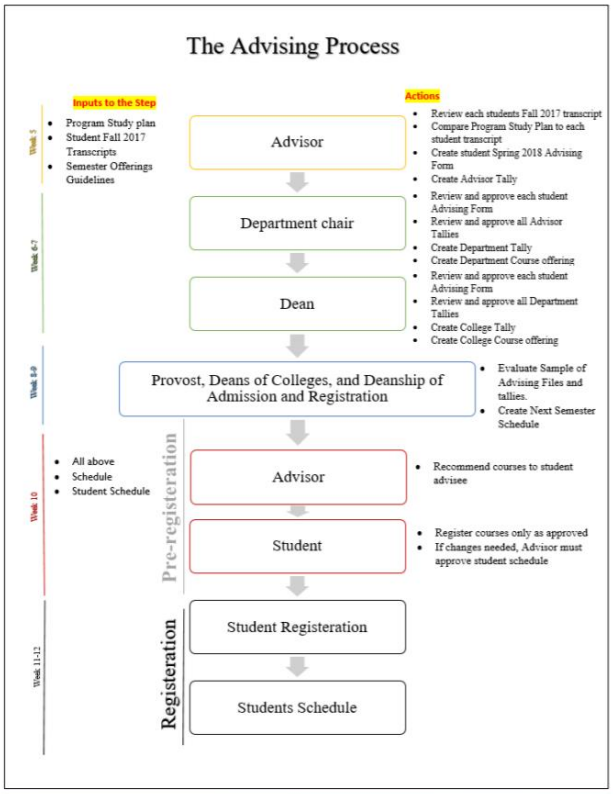


Figure (18) The Academic Advising Process

Student & Faculty Residence

The student residence building was renovated in 2009 to ensure a healthy, safe and secure environment for student residents. It has now a total of 87 bedrooms that can accommodate 110 students. Each student has her own study area for privacy and there are common lounges for students. Resident students are allowed to access the Sports Facilities (e.g. gymnasium, swimming pool) and other facilities that they need either individually or in group as long as supervised by supervisor. The following photos show some sports facilities and student residence at Effat University.



Also, there is a new faculty residence (almost 10600m^2) under construction that is expected to be completed in July 2019.

Medical and Counseling Services

Effat Clinic and the Counseling Office provide Effat University students, including architecture students, with the needed medical, counseling, and health advice services through qualified personnel. Below is a detailed description of the services offered to students:

Effat Clinic is the university' medical unit that provides a number of health and wellbeing services to all university students and employees. It is staffed by a qualified medical doctor and one medical nurse who are available around the clock. The services they provide include: regular check-ups, responding to emergency cases that are communicated through a hotline mobile number shared with students and made publically available to all university students and staff, validating medical reports received from medical institutions other than Effat Clinic for excused absences, providing health education through awareness campaigns throughout the academic year in collaboration with some prominent and specialized MDs or qualified personnel in the community. They also supervise the Center of Women Wellbeing under the Executive Education and Community Service Institute (EECSI) and offer community education programs as needed and planned.

Also, Effat Clinic is responsible for verifying the content of the medical report submitted by prospective students at the time of application as part of their application dossier. The Medical Report is an admission requirement. The medical report and any comments made by the medical doctors of Effat Clinic are saved in the student record in card-ex. Cases that require special attention are carefully monitored throughout the year by the medical staff. Medical services are provided to students and employees free of charge and through the clinical available on campus. The clinic is readily equipped with the needed medical tools and provisions necessary in cases of emergency. For example, the clinic has a golf cart that can provide for easy maneuvering on campus and access to remote buildings. The clinic also has a private ambulance car that is fully equipped to provide the needed medical support in cases that need urgent attention from an external medical institution.

Studio and Lab availability

The University's design studios & labs are available 24 hours for students. However, due to traditions and cultural norms in Saudi Arabia, female students are not expected to stay in studios and labs after 10 pm. In Architecture department 33 studios and 2 main labs and the printing center are available for students.

Academic Assistantships

Under the training program that was launched in 2016-2017, the Architecture Department has utilized the service of academic assistants that can participate in research under faculty supervision and help the faculty in some academic missions. Around 17 trainees have supported the program in so many duties and responsibilities like translating text for some required documents from Arabic to English and vice versa, coordinate the communications related to administrative duties, assisting in the NAAB documentations and printing, assisting the unit in organizing workshops, others like Eithar M. Alzurnuqi and yara subohi had a very good experience working in the EDoB Lab with Dr. Mady by:

1. Assisting the SBRC director in processing some administrative duties, such as filing-in documents,
2. Helping and supporting the students of ARCH 453 – Energy and Design to conduct their Lab. Experiments,
3. Assisting the EDoB Lab. coordinator in organizing students' workshops,
4. Assisting the EDoB Lab. and Club in managing their activities and events,

An evaluation report is submitted by each faculty and by the Department Chair for each trainee.

Lectures, Field Trips, and other Students' Resources

Please refer to section **I.1.3.B Architectural Education and Students** for details.

Participation in Professional Societies

Graduates of the Architecture Program can participate in many professional societies and committees in the Kingdom and the region. After few years of training in an architecture office or governmental agency they can become active

members in the 'Saudi Council of Engineers', which is the only formally recognized body for all engineering professionals, including architecture. Though the body is in its infancy, yet to mature into full-fledged 'Institute of Architects and Engineers' its membership is necessary for applying for governmental projects and consultancies.

Saudi Umran Society [http://umransociety.org] is another powerful Architecture and Urban Design professional society that has affiliation with the UIA [http://www.uia-architectes.org/en/qui-sommes- nous/un-reseau?tid_i18n=116]

Saudi Green Building Forum [http://www.sgbf.sa/] is one of the active professional societies in Saudi Arabia and the region. The vision of the SGBF is to "inspire people and honor places that are the blessings of our nation's legacy; our inheritance extended by green building and sustainability for safety, health and welfare of the humanity and environment for generations". Architecture students also join the SGBF students' chapter, which is placed in EU.

Saudi Council of Engineers [http://www.saudieng.sa/English/Pages/default.aspx] is the official professional agency that graduates of the Architecture Program can join automatically after graduation as mentioned earlier. The SCE is a Saudi Arabian professional body intended to promote the engineering profession, develop and upgrade its standards and those practicing it. It operates under the supervision of the Ministry of Commerce with headquarters in Riyadh.

The organization's main responsibilities are:

- Setting criteria and standards
- Professional development
- Setting license terms and conditions
- Setting rules, regulations
- Conducting examinations for obtaining professional Status

The American Institute of Architects (AIA) Middle East [http://www.aiamiddleeast.org/] is another active professional society in the Kingdom and the region. The graduates of the Architecture Program in EU can join this society and benefit from the seminars lectures and exhibitions held periodically. Although the AIA is the voice of the architectural profession in the US, it extends its collaboration with graduates from the US architecture programs and graduates from the Middle East architecture programs to provide a resource for its members in service to society. Through a culture of innovation, AIA empowers its members and inspires creation of a better built-environment. Architecture students in EU can also join AIAS in the Effat University Chapter [http://www.aias.org/chapter/effat-university/]

Also as mentioned earlier in part I.1.3, The undergraduate students of the Architecture Program are also encouraged to be involved in quality research projects. Besides their capstone projects which they conduct with the support of faculty members and which can lead to the publication of undergraduate papers, conference papers or published papers, they are also encouraged to share in the University research competition forums for the undergraduate students through the RCI annually. The ARCH Program encourages and intensively supports students to contribute in such competitions. In the academic year 2016- 2017, five students shared in these competitions and two of them won them. Also, five students presented research papers in national and international conferences as mentioned in the section before.

I.2.2 Administrative Structure & Governance

The Organizational Structure of Effat niversity

The overall organizational chart of Effat University as of Spring 2019 is as follows:

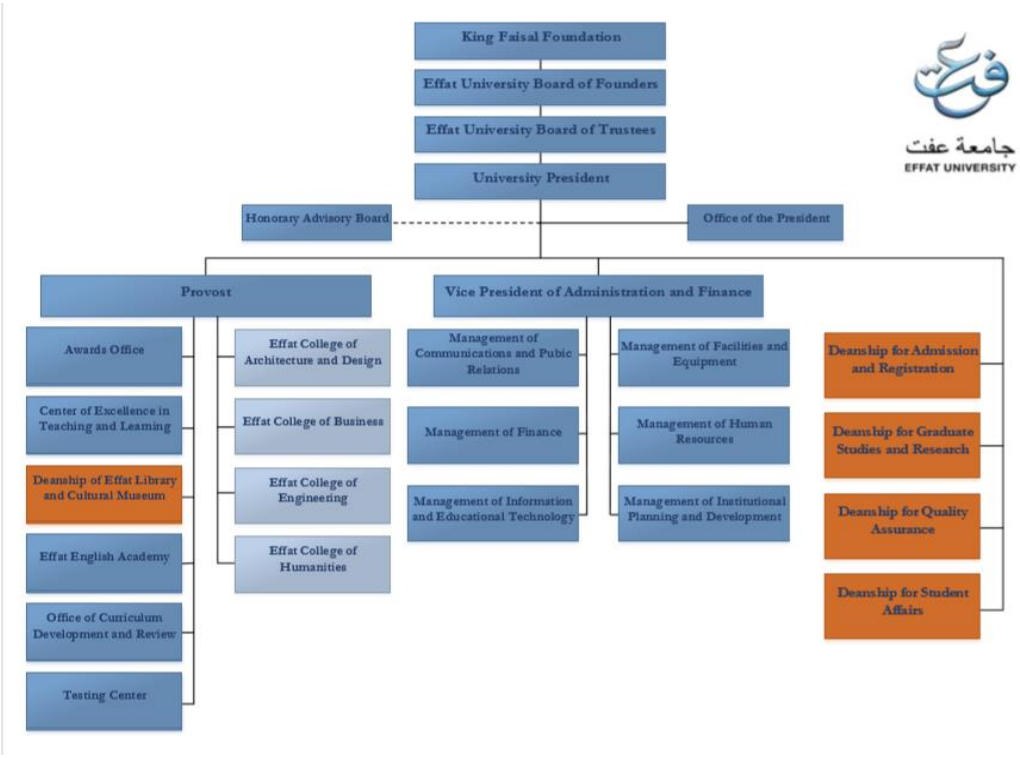


Figure (19) Organizational Chart of Effat University

The organizational chart shows the four colleges of Effat University including the College of Architecture and Design and the 13 departments springing from them, including the Architecture Department as well as the Awards Center, The Center for Excellence in Teaching and Learning, Effat Library and Cultural Museum, Effat English Academy, Office of Curriculum Development and Review and the Testing Center, which all comprise the units that are supervised by the Provost. The administrative units including the Management of Finance, Management of Human Resources, Management of Communication and Public Relations. Management of Facilities and Equipment, Management of Information and Educational Technology Services and Management of Institutional Planning and Development are supervised by the Vice-President for Administration and Finance. Other supporting units include the Deanships of Admission and Registration, Student Affairs, Quality Assurance and Graduate Studies and Research. These are supervised by the President. All in all, Effat University has 40 units, both academic and administrative.

The key decision-making bodies and advisory arms for Effat University are the **Ministry of Education, King Faisal Foundation, Effat University Founders' Board**, **Effat University Board of Trustees**, **Effat University Honorary Advisory Board**, **University Council, University Council Standing Committees, College Councils**, **Departmental Councils**, **Scientific Council**, **Graduate Studies Council, Research Council.** The university has also established ***the Administrative Assembly*** that is responsible for looking into all issues related to the administration of Effat University.

The full Description of the formation and responsibilities of these councils and committees are provided in the Governance Manual of Effat University. It must be mentioned here that the governance structure developed by Effat University has been successful in helping all units manage their work and approve their decisions as needed. The structure is becoming tighter every year. Thanks to the commitment of the top administration and leaders of the administration who are well aware of the importance of these decision-making bodies in organizing workflow.

The importance of these bodies and their role is well- perceived by all the members of university. According to the Faculty and Staff Survey conducted in Spring 2017-2018, faculty and staff (the sample represented 70% of the total number of employees) have agreed that councils, committees and meetings are important for the decision-making processes, giving a score of **4.5** out of **5**, and also agreed that such bodies discuss important issues for the interest of the institution, students, faculty, staff and labour, giving a score of **4.3** out of **5**.

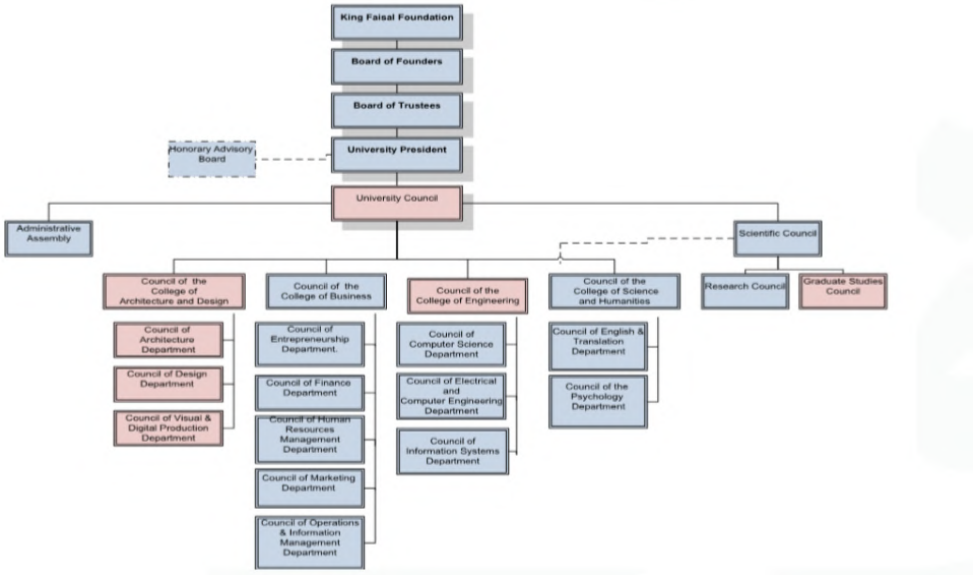
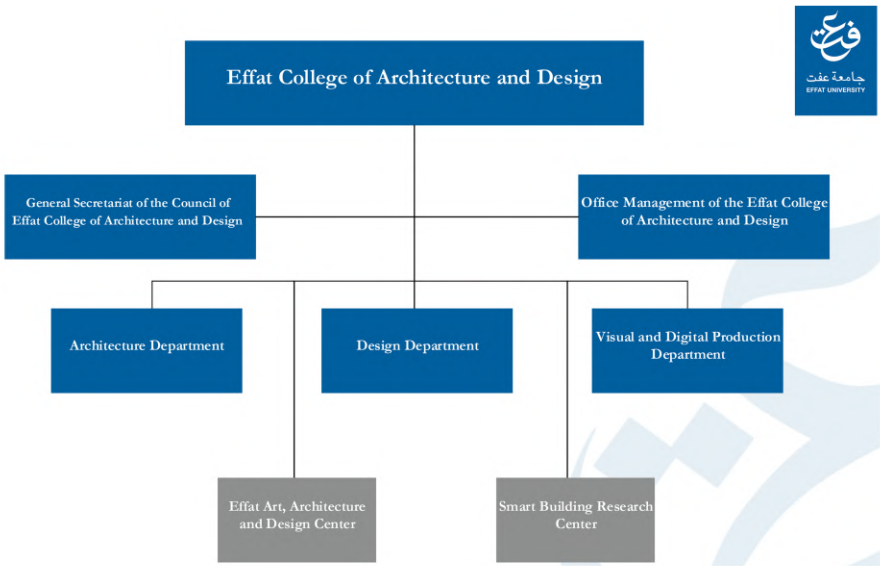


Figure (20) Update Governance Structure at Effat University up to spring 2019

The College of Architecture & Design is itself organized into three academic departments: Architecture, Design and Visual & Digital Production, in addition to the Smart Buildings Research Center and Center for Art Architecture and Design.
The ECoAD was established as mentioned earlier in Fall 2014 and since this date, the architecture department became under the College of Architecture & Design, not the College of Engineering.

The departments within the College of Architecture & Design offer the following degrees:

- Bachelor of Architecture
- Bachelor of Design (three tracks)
- Bachelor of Visual & Digital Production (three tracks)



In addition, a two-year master degree is awarded in Urban Design under the Architecture Department. In 2022, the Architecture Department will initiate a new Ph.D. program.
For more information about the master program, please refer to the link below" https://www.effatuniversity.edu.sa/English/Academics/Graduate/CoAD/Pages/MSUD.aspx

Architecture Department Governance Structure

The Architecture Department operates under the governing structure of EU, which places the department under the direct supervision of the Dean of the ECoAD and the governing authority of the EcoAD Council. The ECoAD Council is the official authority that endorses the departmental requests and confirms the approved decisions of the University Council. The Council consists of members from the three academic departments and two centres that form the ECoAD. Members of the EcoAD Council include the department chairs, representatives of faculty of each program, directors and coordinators of the different centres, and elected Secretary General for the council. The College Dean is the council chair.

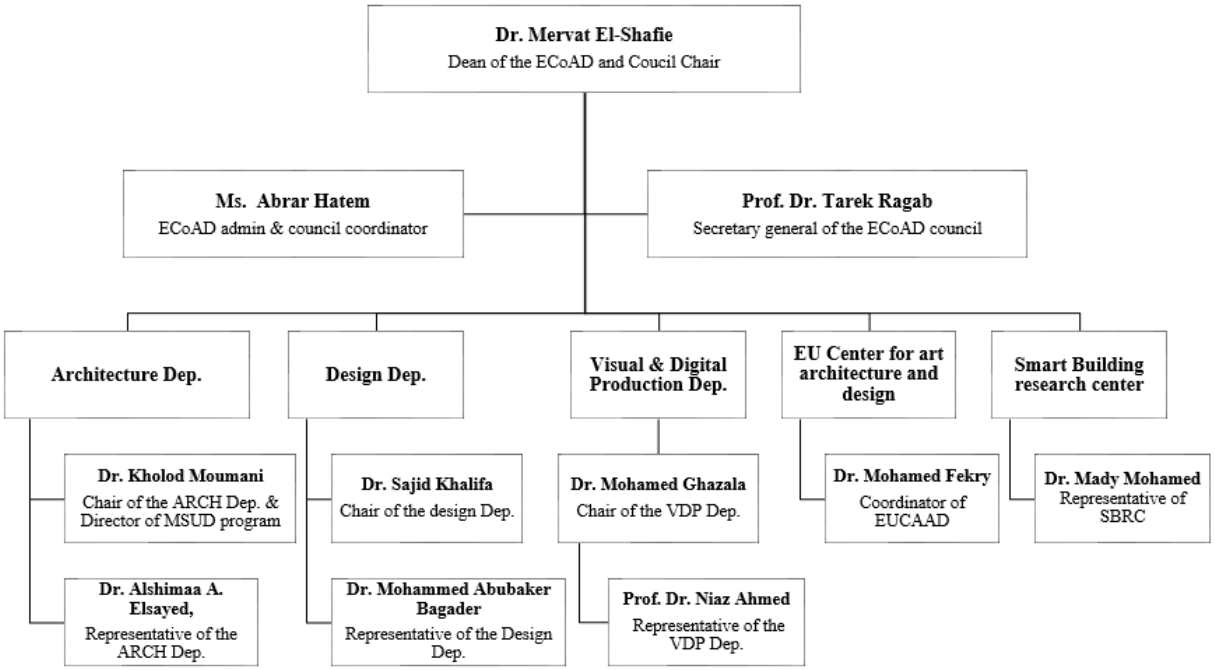
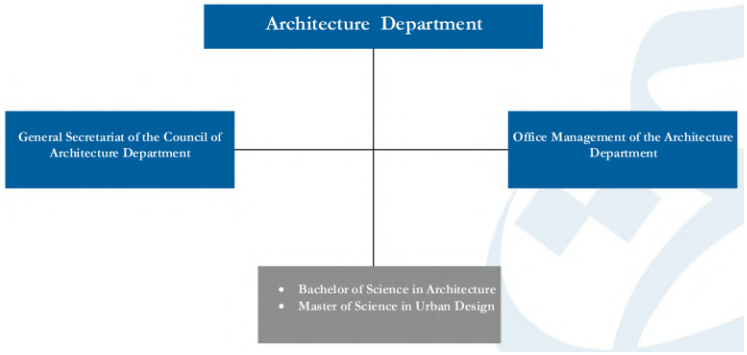


Figure (21) ECoAD Department Governance Structure

The ARCH Program governing structure is democratic, enhancing the sense of ownership and job satisfaction among the faculty. A department council is the body for decision-making, which typically happens after deliberation. Students are represented in some of the departmental committees and they are welcomed to attend some of the DC, student Weam Balgoom the AIAS –EU president attended representing ARCH students in some DC meetings.
The ARCH Department in Spring 19 includes twenty-seven full time faculty members, five full time lecturers and seven part-time lecturers in addition to two assistants. Dr. Kholod Moumani is the Chair of the Department. The Department's faculty members and teaching staff are committed to teach ARCH courses (core/elective) which represent 74% (114 credits for core and 12 credits for elective) of the 171 credits that students need to take in order to graduate. Courses from the General Education Program (GEP) and the Mathematics college requirement represent the remaining 26% (42 + 3 credits). The core and elective ARCH courses (114 +12 credits = 74% of the 171 credits) are taught by faculty from the ECoAD, while the GEP required courses and the Mathematics college requirement (42 + 3 credits = 26 % of 171 credits) are taught by faculty from the General Education Department, and faculty from the Science and Math Unite. Therefore, the program structure is multi-disciplinary with courses being taught by versatile subject specialists from the ARCH department and the General Education Program (GEP).

The ARCH program has conducted a 5-year cycle review for its curriculum. Currently, the revised and updated curriculum is reviewed from King Fahd University for Petroleum and Minerals (KFUPM) and currently under the review of the ministry of education. Limited changes were done, mainly in the pre-requisites of the ARCH major courses to fit the nature of the program. This review was done with consultation of all ARCH faculty under the responsibility of the Department Curriculum Review Committee. This committee consisted of coordinators of the studios and theoretical courses and was chaired by the Chair of the Department at that time Dr Samah El Khateeb. The University Academic Committee, which is composed of academic from all over the university, also reviewed the updated program carefully before it was sent to the external national reviewer KFUPM. All comments of all reviewers were considered and were used to enhance the updated curriculum of the program. The ARCH program is administered by the ARCH Department, as shown in the figure below

Figure (22) ARCH Department Structure



I.2.3 Physical Resources

A. Description of Facilities

For several years now since it was established in 2005, the ARCH Department has made a concerted effort to upgrade its classrooms and furnish them with appropriate equipment and technology to cater for its growing number of students. Each student in the Architecture Department has her own seat for the whole semester. Studios are divided into freshman studios and senior studios with some additional computer labs that serve students from year 3 to year 5.

The ECoAD consists of the following buildings:

- Building one (ground & first floor)
- Building two (ground & first floor)
- Smart building (printing center & open lab & some faculty offices)
- Fab Lab

The Architecture Program shares some facilities with other colleges as follows:

- College of Engineering (lecture Rooms- Physics Labs)
- College of Business (lecture rooms)

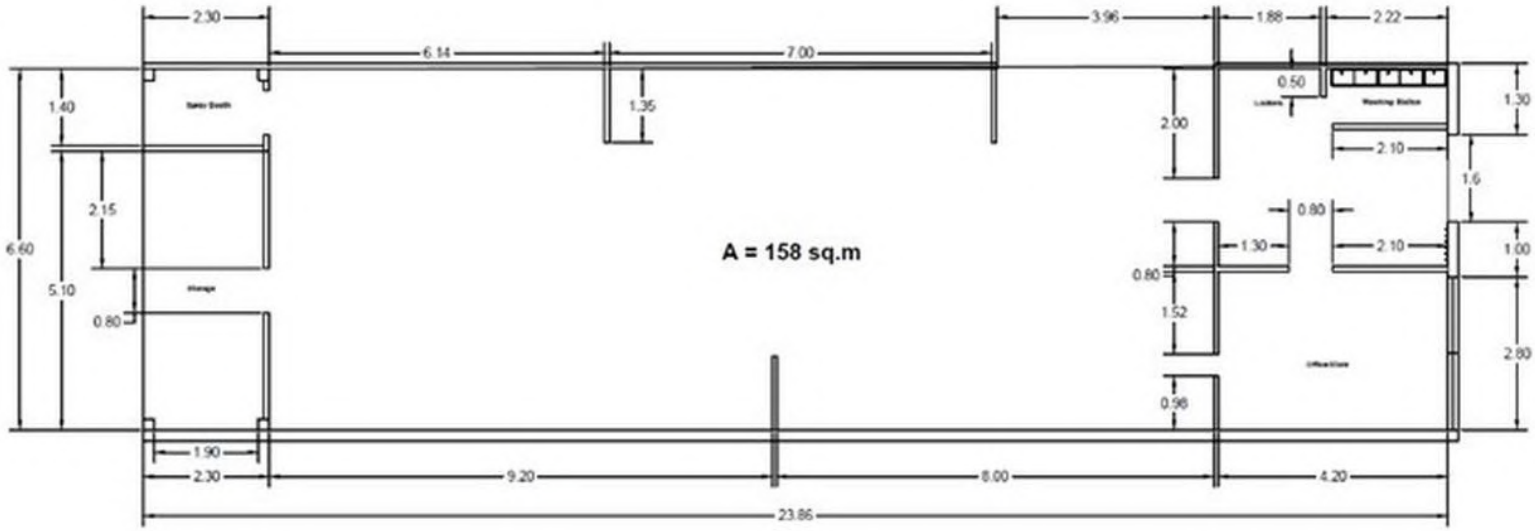
The following figures, plans and table show all the physical resources available to the program. The following map shows first the location of the university as it appears in Google map in the south of Jeddah:

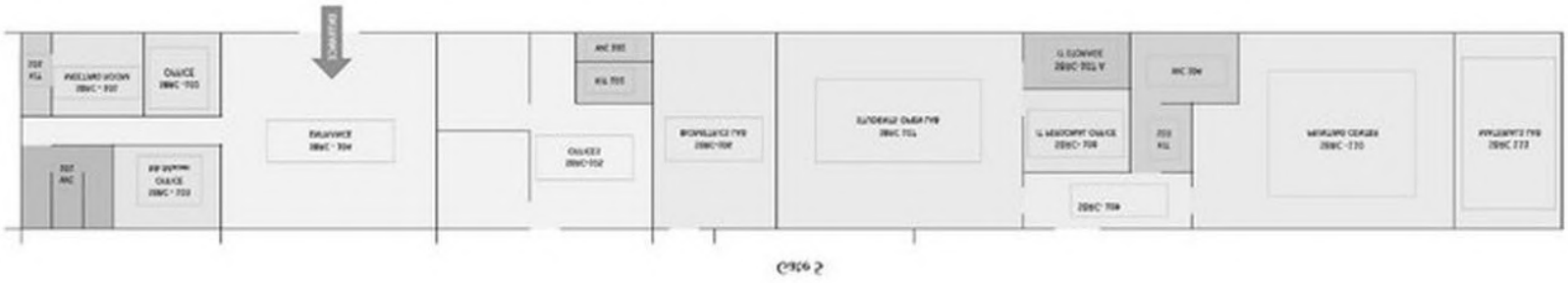
Floor Plans: Plans of the new facility and a site plan of the new campus follow. Space assigned specifically to the Department of Architecture is outlined in bold.

Figure (23) College of Architecture & Design: Ground Floor Plan – Building 1 (not to scale)

Figure (24) College of Architecture & Design: Second Floor Plan- <u>Building 1</u> (not to scale)

Figure (25) College of Architecture & Design: Second Floor Plan- Building 2 (not to scale)





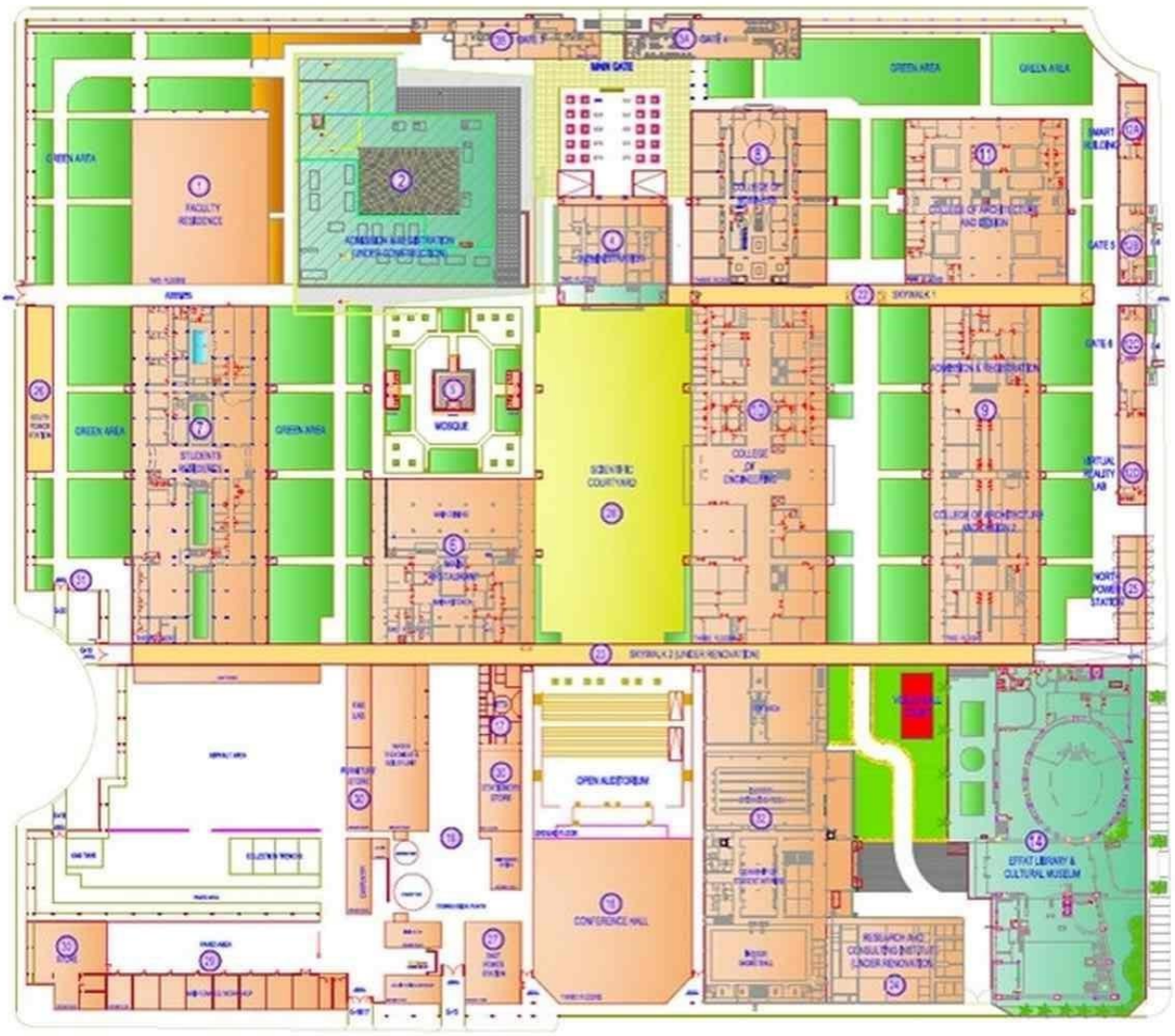


Figure (26) Campus Showing the College of Architecture and Design Building (not to scale).

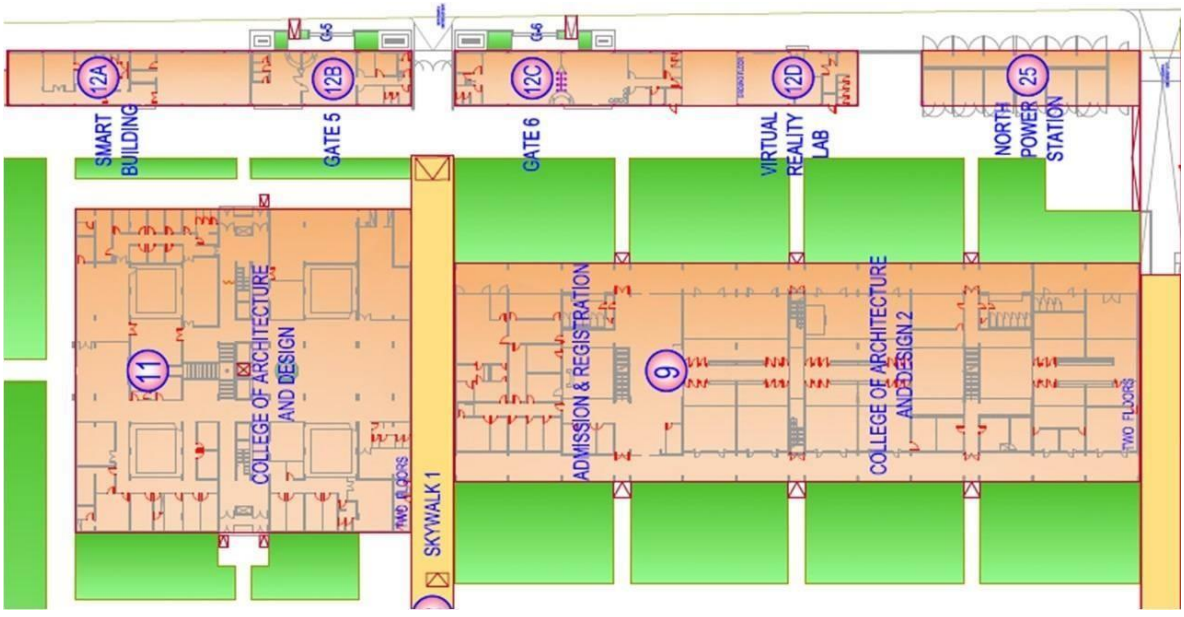


Figure (27) College of Architecture & Design (not to scale)

Figure (28) College of Architecture & Design

B. Space calculation:

ECoAD Building 1 – 3640 sq.m
ECoAD Building 2 – 5088 sq. m
Smart Building – 412 sq. m
Fab Lab – 158 sq. m
Total – 9298 sq. m or 100,032 sq.

Table (25) ECoAD Building 1 Detailed Areas

Room Number	Floor Area (Sq.m)	Functions
CoAD 100	53	Dean's Office
CoAD 100A	53	Archive room
CoAD 101	8	Meeting Room
CoAD 102	60	Administrative Assistants' Offices
CoAD 103	50	Architecture Department Chair's Office
CoAD 104	30	Faculty Office
CoAD 105	12	Faculty Office
CoAD 106	12	Faculty Office
CoAD 107	11	Faculty Office
CoAD 108A	11	Faculty Office
CoAD 108B	29	Faculty Office
CoAD 109	29	Senior Studio
CoAD 110	118	Graduate Students Lounge + Prayer Room
CoAD 111	29.05	Senior Studio
CoAD 112A	80	Faculty Office
CoAD 112B	12	Faculty Office
CoAD 113	12	Senior Studio
CoAD 114A	102	Faculty Office
CoAD 114B	11	Faculty Office
CoAD 114C	11	Faculty Office
CoAD 114D	11	Faculty Office

CoAD 115	11	Faculty Office
CoAD 116	11	Faculty Office
CoAD 117	11	Part time faculty – Office
CoAD 118	7	Faculty Office
CoAD 119	33	Faculty Office
CoAD 120	9	Faculty Office
CoAD 121	140	NAAB Meeting Room
CoAD 122	94.7	NAAB Display Room
KIT 124	74.9	Kitchen
KIT 110	5.58	Kitchen
STO 100A	11	Storage
STO 100B	15	Storage
STO - 134	15	Storage
STO - 135	5.13	Storage
STO - 136	5.13	Faculty Printing room
WC 101	4.84	Toilet
WC 102	10	Toilet
WC 103	2.88	Toilet
WC 104	3.5	Toilet
WC 105	24.5	Male Toilet
WC 130	13.5	Male Toilet
CoAD -Exhibition	7.48	Exhibition Hall
CoAD 200	335	Senior Studio
CoAD 201	78	Faculty Office
CoAD 202	12	Faculty Office
CoAD 203	12	Senior Studio
CoAD 204	78	Senior Studio
CoAD 205A	130	Faculty Office
CoAD 205B	12	Faculty Office
CoAD 205C	12	Faculty Office
CoAD 206	12	Senior Studio
CoAD 206A	127	Storage/Resource room
CoAD 206B	7.8	Storage/Resource room
CoAD 207	4.95	Senior Studio
CoAD 207A	101	Storage/Resource room
CoAD 208A	4.95	Faculty Office
CoAD 208B	12	Faculty Office
CoAD 208C	12	Faculty Office
CoAD 209	12	Senior Studio
CoAD 210	84	Senior Studio
CoAD 211	112	Senior Studio
CoAD 212	77	Faculty Office
CoAD 213	12	Faculty Office
CoAD 214	12	Senior Studio
STO 234	77	Storage Room

STO 235	6.08	Printing room /Storage Room
WC 206	6.08	Female Toilet
WC 211	42.9	Male Toilet
STO 205	7.67	Storage Room
STO 206	7.48	Printing room /Storage Room
STO-IT	4.84	IT Resource room
STO 212	41	Store room
STO -C&PR	4.95	Store room

Table (26) ECoAD Building 2 Detailed Areas

Room Number	Floor Area (sq.m)	Functions
CoAD 123	67	Registration Office
CoAD 124	67	Studio
CoAD 125	67	Registration Training Room
CoAD 126	67	Design Studio
CoAD 127	67	Educational Computer lab
CoAD 128	67	Design Studio
CoAD 129	67	Computer Lab
CoAD 130	67	Design Studio
CoAD 131	16	Faculty Office
CoAD 132 A	5	Faculty Office
CoAD 132 B	5	Faculty Office
CoAD 132 C	5	Faculty Office
CoAD 133	16	Shared Offices
CoAD 134	33	Department Chair's Office
CoAD 135 B	7	Faculty Office
CoAD 136 A	7	Faculty Office
CoAD 136 A	7	Faculty Office
CoAD 137	67	Design Interior Lab
CoAD 138 A	27	Faculty Area
CoAD 138B	7	Faculty Office
CoAD 138C	7	Faculty Office
CoAD 139	67	Design Environmental Lab
CoAD 140	67	Product Design Lab
CoAD 140A	8.5	Resources Room
STO 101	7	Storeroom
WC 105	21	Washroom
WC106	15	Male Washroom
KIT 101	4	Kitchen
HUM 101	13	Shared Offices
HUM 102	11	Faculty Office Faculty Office
HUM 103	22	Shared Offices
HUM 104	33	Office
HUM 105	40	Cardex Room
HUM 106	30	Shared Offices

HUM 107	34	Dean's Office
HUM 108	11	Faculty Office
HUM 109	11	Faculty Office
HUM 110	11	Faculty Office
HUM 111	21	Shared Office
WC101	21	Washroom
WC102	4.9	DAR Staff Washroom
WC 103	4.07	Washroom
WC104	4	Washroom
FIRST FLOOR		
CoAD 215	67	Environmental Lab
CoAD 216	60	Studio
CoAD 217	60	Studio
CoAD 218	60	Studio
CoAD 219	54	Studio
CoAD 220	54	Studio
CoAD 221	54	Studio
CoAD 222	54	Studio
CoAD 223	54	Studio
CoAD 224	54	Studio
CoAD 225	54	Studio
CoAD 226	54	Studio
CoAD 227	54	Photography Lab
CoAD 228	25	Photography Lab
CoAD 229	53	Photography Lab
CoAD 230	53	Project's Room
CoAD 231	21	AIAS Office

Table (27) Smart Building Detailed Areas

Room Number	Floor Area (sq.m)	Functions
SBRC 111	22.89	Material Lab
SBRC 110	59.58	ECoAD Printing Center
SBRC 107	63.7	Open lab

C. Digital Technology and Audio-Visual Resources

The College of Architecture & Design Building is fully IT capable, with wireless access throughout and with a wide distribution of power and data connections. This includes a grid of connections in floor boxes in classrooms and studio spaces. The new building has 21 classrooms, each provided with:

- Board
- Projector
- Overhead Projector
- PC
- 6-8 desktops in senior studios

Computer Resources

The planning process for facilities and equipment acquisition at the ARCH Department considers the following criteria:

- Meet the program's requirements;
- Be consistent with the institutional policies;
- Ensure that current, anticipated, and emerging needs are met;

It is in the program's policy to make sure that faculty members are involved in the decision making process in order to ensure that the planning and acquisition of new facilities and equipment will satisfy current, anticipated, and emerging needs.

The ARCH department Strategic Plan for (2017-2022) states the plan for the establishment of additional ARCH labs and studios according to the increase of the students' number, upgrading the software annually with the yearly license. The institutional Strategic Plan (2017-2022) states that the renewal and upgrade of hardware should be every 3-5 years.

At the beginning of each semester, faculties request the software or the equipment needed for their teaching. ARCH purchasing committee is consulted in acquisitions of equipment and software. Ensuring the adequacy of the equipment used at the ARCH Department is essential for ensuring a valuable teaching and learning experience. That is why equipment planning does not just take into consideration acquisition plans, but also servicing and replacement schedules. At the end of each semester, IT needs requests are discussed and approved by the Department Chair and the Dean and are sent to the Management of Information and Educational Technology Services (MI&ETS) for implementation. The ARCH building is taken care of by the Maintenance and Operations unit at university level and any requests for furniture or space or repairs are made through this unit.

Students, faculty, and staff satisfaction surveys at the institution level are conducted to ensure that all stakeholders are satisfied with the quality of facilities at institutional and departmental levels.

Printing Center

The Architecture Department offers a printing center to students that enable them to print from A4 size to A0 in different paper materials. All related information is in the Policy & Procedures for Printing which will be available in the visiting team room.

Software in the Computer Graphics Labs

The Maintenance and Operations Unit is responsible for ensuring that facilities respect the institutional regulations for health and safety requirements and that they are convenient for people with disabilities.

The ARCH program emphasizes the confidentiality of counseling and advising. Therefore, faculty members have private offices with a personal computer where they meet students for private consultation related to their academic or personal life. All students also have their own personal confidential account where they can access materials, grades, Blackboard content, Banner and library resources.

The ARCH Department has established multiple open labs equipped with various software needed by the ARCH students and faculty. Lab bookings are made at the beginning of each semester for ARCH courses which need regular lab sessions.

Software Installed:

1- CorelDraw X6
2- 3D Max 2
3- AutoCAD
3- CS6
4- Google. Sketchup
5- Revit
6-Microsoft Office
7- GIS

Specialized Labs

The Architecture Department supports the educational & learning process with many specialized labs that help the students to apply effectively what they learn. According to the proposed new plan for the Smart Building Research Center, there will be three main labs and three supporting labs as below:

Specialized main labs:

1. Environmental Design of Buildings Lab (EDoB Lab.)
2. Urban Design Lab (UDL)
3. Construction and Material Testing Lab (CMTL)

Supporting unites and labs

4. Fabrication Lab (FL)
5. Media Lab. (Print/Scanning Unit)
6. Virtual Environment (VM)

These specialized labs are:

1- Environmental Design of Buildings Lab (EDoB)

The aim of the EDoB Lab is to aid the early stages of design for buildings through providing scale-modelling assessment for different design ideas. It is available for Architecture students, faculty and researchers. In addition, this is to be highly utilized for all design studios and some other complementary courses such as: ARCH 453- Energy and Design, and ARCH 364-Color and Lighting principles. This las is equipped with many tools including:

- Artificial Sky/ Sky Dome: to test the quality and quantity of lighting inside the paces
- Heliodon: To test the solar penetration, and shadowing studies
- Hand Held equipment and Data Loggers to measure the different factors affecting thermal performance for occupants inside buildings
- Micro station (That includes, Solar radiation Sensor, Light sensor mounting bracket, Light sensor level, rain shields, Temperature and RH Sensor, air pressure sensor, Rain gauge)

2- Materials Lab Construction and Material Testing Lab – CMTL (Under construction)

The Architecture department has planned to have a Construction and Material Testing Lab in the soon future. This lab will be a specialized one in testing building materials to allow students and researchers to test some material in accordance to the certified Saudi or International standards in this field. However, the department developed a material showroom to allow students to identify different materials in the construction field and be able to distinguish between them, and to be able to distinctively differentiate between different structural systems. The material showroom contains sample of students' work for different structural models, and samples of different construction material (e.g. bricks, blocks, windows' frame, doors' frames, tiles, glass bricks, insulation material, painting …).

3- Urban Design Lab (UDL) (Under construction)

Effat Urban Laboratory is a cross-disciplinary center for critical and creative urban thinking, teaching, research and practice based at Effat College of Architecture and Design- Effat University, Jeddah. It is an initiative bringing together the best urban teaching, research, and lab activities at Effat build on the full spectrum of work across the Urban Design, Urban Planning and Urban Management.

4- Fabrication Lab

The fabrication Lab Provides hands on workshop to produce all physical models that are needed for further investigation in the other labs. The lab research lead is Dr. Sajid Khalifa. The Lab is equipped with several hand tools in addition to the following machines:

Projet 66+a15:a290 pro ceramic 3D printer	Epilog mini or helix laser cutter
ABS plastic 3D printer	Wood router
3 axis CNC router	Air blower
Milling & drilling machine	Jigsaw
Compound miter saw	Circular cutter
Band saw	Belt sander machine
Drilling machine	Power sanders
Thickness planer	Wood planers
Table circular saw	Power screw drivers
Air compressor	



The main goal of the model fabrication unit is to enhance the students' ability to produce professional, accurate architectural models. The laser cutting machine benefits the students in accelerating the process of model-making. Materials such as wood, acrylic, cardboard, and MDF in a maximum thickness of 12mm can be cut and engraved quickly and precisely by means of AutoCAD drawings.


Senior Studios, each student has a fixed desk all the semester


Freshman studios with drawing table, each student has a fixed desk all the semester


Student open lab


Printing center


Multipurpose hall for juries and exhibition

The 3D printers, although slower than the laser cutting machines, can produce more complicated prototypes. Students can prepare 3D files by using software such as Sketch Up, 3D AutoCad, Rhino, and 3D Max and then exporting data as an STL file to the printers. Because the 3D printers can produce more complicated shapes, students can combine larger scale models with the laser cutters and then add more detailed and complex parts via the 3D printers.

I.2.4 Financial Resources

Each college/department is provided an operational budget annually to support program operations and supplement professional development or other activities not covered by campus resources. There are no direct charge backs to the department for any services such as faculty searches, computers, equipment, copying, utilities, space, campus vehicle use, or technical support.

The management of financial planning took place once the institution started the program in 2000 (Effat College at that time). The management of the financial planning took several phases to materialize; the original and 1st plan was conducted based on a feasibility study provided by Pan Arab Research Center (PARC) done at that time.

Being planned from scratch with no historical data, it was necessary to re-plan and conduct a 2nd strategic plan that better reflects actual historical operations and current market conditions. This 2nd strategic plan was developed in the year 2007/2008 incorporating into it the plan to convert the institution from a College to a University status. Once the status of university was acquired, a transitional plan was developed which covered the years 2009/2010 to 2011/2012. The third strategic plan took place in the year 2011/2012 covering the subsequent five years 2012/2013 to 2016/2017.

To ensure accurate planning for financial resources and expenditures, all programs, including the Architecture Program, were asked to draft their own respective long term strategic plans that were in line with the University's strategic plan. Unit plans were later translated to monetary numbers, where the budget reflects the resources and associated costs.

Planning for Resources

As part of the University's planning for financial resources, projections of the number of students for each academic program were made including the architecture program. Those numbers represent the starting point for resources planning, including human resources, facilities and equipment, learning resources, IT needs, etc…, and they also serve in calculating three very important items, namely:

- Direct tuition revenue for the program.
- Direct costs of operation, being mainly the cost of instruction.
- The allocation of indirect costs

The table below shows the original forecast for the number of ARCH students for the period of 2009 - 2017, as part of the planning and budgeting process.

Table (28) Original Forecast of ARCH Students Number

	Program	Average New/Year	16-17	17-18	18-19	19-20	20-21	21-22	22-23
CoAD	BSc. ARCH	39	704	607	469	385	283	237	208

New Students	368	150	152	174	185	188	189
# of Graduates	385	435	284	413	205	239	97
Negative attrition per y	125	114	88	89	85	81	

The university, with its different programs including the Architecture Program, also has a financial risk management plan that considers the possibility of the increase or decrease of the number of students for different reasons and the financial repercussions of this is considered to avoid any possible financial risks.

As described in the University Charter in Chapter 4, Article 67, the University's financial resources are generated from a number of sources of funding. Those are:

- The Board of Trustees (BoT)
- Direct operational revenue (tuition fees)
- Donations
- Auxiliary services revenue such as housing, transportation and food services
- Research, consultancy and workshops
- Other sources of revenue (return on the University's investments is currently part of the other sources of revenue, as the investment office is currently investing in short term money market funds).

The Investment Office, established under the Management of Finance by the end of 2014, is working on establishing its investment relationships to expand and enhance its portfolio by seeking advice from different investment firms such as UBS, Al Ahli Capital, Al Khabeer Capital, SABB Capital, among others. The Investment Office is a fully operational unit starting this year in collaboration with the Financial Committee for the Board of Trustees.

The year 2012-2013 was one of the most important years in terms of formulating the University`s investment routes, as it witnessed the first phases of establishing a trading lab under the Finance Department, with a Thomson Reuters license for the investment office. Faculty and student projects and research conducted though the trading lab will provide valuable information and support to the investment office. As the University's portfolio matures, it is expected that the return from the investment portfolio will increase and go well above 4% and stands alone as a separate section. Percentage distributions for each funding resource from the total are presented in table 8 below. It is worth noting here that the reliance on operational revenue has increased substantially in 2014-2015 due to the increased number of students recruited. The Architecture Program contributes to and receives a contribution from each source of income as shown in tables (8), (9) and (10) below.

Table (29) Funding Resources for the University

Percentage to Total Income					Source of Income
2021/2022	2020/2021	2019/2020	2018/2019	2017/2018	
16%	12%	10%	6.5%	5.5%	Founder Endowment Fund
70%	75%	80%	83.5%	85.5%	Income from Activity
1%	1%	1%	1%	1%	Donation
2%	2%	2%	3%	3%	Income from Support Services & Other
0.5%	0.5%	0.5%	0.5%	0.5%	Consultation
0.5%	0.5%	0.5%	0.5%	0.5%	Training agreement
5%	4%	3%	2%	1%	Research Grants
5%	5%	3%	3%	3%	Effat Internal Investment Fund
100%	**100%**	**100%**	**100.00%**	**100%**	**Total**

Table (30) Funding Resources for the Architecture Program

Program	2012/2013	2013/2014	2014/2015
Program\(ARCH)	13,736,943	29,716,453	55,232,577

Table (31) Architecture Program Contribution to University Tuition

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Architecture Program Contribution % to University Tuition	28.8%	30%	31.7%	31%	32%	33%	Will be available by the end of the financial year

Planning for Costs

Pursuant to resource planning, the next step was to plan for the costs of operations. The major costs associated with any program are namely the costs of instruction. Faculty estimates were based on the forecasted number of students in the Architecture Program, in addition to the MoE guidelines and requirements for hiring faculty members. Moreover, other administrative recruitment needs were also planned and estimated.

Other Plans

Planning for other activities such as extra curricula activities is always accompanied by a business plan. Financial implications of the plan are conducted with the finance department and other departments to accomplish the required activities. A full detailed budget is then drafted. Some activities are shared by many programs in the university such as University Open House and Career Day. These types of activities are cross subsidized by all involved programs.

Planning for Capital Expenditures

Capital expenditure associated with the Architecture Program is mainly related to the establishment and maintenance of its labs and equipment. Again, these are set in the 5 year plan in collaboration with the concerned supporting units (Management of Facilities and Equipment, and MI&ETS, etc) and revised annually with them based on the changing needs of the program.

Shortfalls in Funding

Finally, after having drafted a full detailed budget reflecting the projected operational income and costs as well as capital expenditures, shortfalls and deficits in certain years or for certain projects were identified in advance. Shortfalls in funding are either financed by the Board of Trustees or by seeking outside Donations. Planning for donations for specific projects such as Memaryat exhibition are usually done with the help of the Advancement Office in the university.

Summary

This financial planning process takes place every five years, where the university, colleges and programs work on their strategic plan. Each program estimates its budget according to the expected needs required to achieve its goals. The budget established for the Architecture Program goes through several approvals before being granted the final approval.

Once approved, the program's budget becomes the guide of all of the financial activities in the program and acts as a performance measurement tool around which variances are evaluated and investigated annually and every semester.

Budget Delegation and Authority

The Department Chair has the authority to manage and supervise the budget and the independent accounts of the Department. Each Department has a code, called the cost center number, through which the Management of Finance communicates with for each Department. Spending is delegated to each budget owner. Certain budgeting related tasks, however, are centralized such as the reallocation of funds between expenditure items within the budget. For instance, a budget owner does not have the authority to reallocate a certain expense item unless he/she gets prior approval from the university President.

Budget expenditures are monitored by the Management of Finance through a specific set of procedures. For any payment request submitted by the Department, the Management of Finance checks the following:

- That the requested item is located in the budget.
- That the requested item's cost is within the budget limit.
- That the specification of the requested item and its estimated cost are provided.

If the three criteria are satisfied, the payment request is processed. In the case of a request for purchasing equipment, the Management of Finance seeks the best offer in the market provided that the technical specifications are satisfied. If the requested item is not available in the local market, it can be purchased from vendors overseas. After satisfying all of the above procedures, the final payment goes through for process and implementation. All programs can also monitor their financial transactions through the banner system.

Overall Evaluation of Financial Management and Planning Process

Evaluation of the Architecture Program's financial planning and management showed that the Program's budgeting and resource allocation process reflects its mission and goals, guided by its five- year plan. One of the 2012-2017 goals related to financial planning is to "*encourage faculty to attract funds through research grants and consultation services.*" Thus, the Program is encouraged to develop strategies to diversify revenue through a range of activities, to reduce its dependence on a single funding source. For example, in Fall 2015 four teams from the Architecture Program applied for small grants from KACAST (200.000 SR). One faculty from the Architecture won a large grant in 2017. Besides, other research projects that are funded by the university (ARCH department has two research projects that are funded by the Deanship of Graduate Studies and Research).

Strengths

- The program has been and is fully supported financially by the University and its Board of Founders.
- The Department's financial planning and management processes are in alignment with its program and university mission and goals.
- The Department's financial planning and management processes follow well-established and sound financial planning and management procedures

I.2.5 Information Resources

Learning & information resources are provided by supporting units including the central library (Effat Library and Cultural Museum) and the Management for Information and Educational Technology Services (MI&ETS). These information resources are adequate for the Architecture Program requirements and the courses offered within the program. The central library has a 5-year strategic plan, including a plan for acquiring learning resources for all the programs of Effat University that is linked to the forecast of students' numbers and newly developed academic programs to ensure that all programs and students are provided the adequate amount for learning resource to enhance their learning experience. In addition, faculty members provide advice on the material that is required to support their teaching and learning annually. Those recommendations are taken into consideration by the program and adequate support is provided by the concerned parties prior to every academic semester.

The program makes sure to work closely with MI&ETS and with the library to acquire the latest learning resources needed. Students and faculty and staff satisfaction surveys and course reports have sections that investigate the adequacy of resources and services provided, and the extent of usage of these services. Satisfaction levels are usually high (near or above 80%) as students and faculty are satisfied with the books and hardware and software offered.

Figure (29) New Effat Library & Cultural Museum

Library Services

The new Effat Library & Cultural Museum (ELCM) opened in October 2014. The ELCM is 7,000 m2 and has two floors plus a study mezzanine.

New Effat Library & Cultural Museum
Area = 7,000m2
No. of Seats = 600
No. of Print Volumes = can accommodate up to 60,000 volumes

Learning and information resources provided by the ELCM the Management for Information and the Information and Educational Technology Services (MIETS) are adequate for the ARCH program requirements and the courses offered within the program.

Faculty members provide advice on the materials that are required to support their teaching and learning. Those recommendations are taken into consideration by the program and adequate support is provided by the concerned parties prior to every semester.

Students have access to the resources available in the library during working hours (8:00 am to 4:00 pm). The library also opens in the evening for three days a week up to 9:00pm. The library also provides membership to several online databases that can be used by faculty members and students on and off campus. The table below provides a summary of the library resources available for the ARCH program.

Table (32) Library Collection (ARCH Program and ECoAD) Fall 2016-Spring 2019

Term	No. of students	Print books	eBooks	Total Books	Ratio Book/student
COLLEGE OF ARCHITECTURE & DESIGN					
Spring 2019	496	3064	5579	8643	17.4
Fall 2018	589	2816	5579	8395	14.3
Spring 2018	613	2816	5579	8395	14
Fall 2017	656	2383	5579	7962	12
Spring 2017	709	2337	5579	7916	11
Fall 2016	732	1928	9835	11763	16

Table (33) E-Journal Collection in ARCH program Fall2018- Spring 2019

COLLEGE OF ARCHITECTURE & DESIGN	No of e-journals
Architecture	528
Master in Urban Design (MSUD)	55

Future Plans for Improving Coverage and Services

At the end of each academic year, the Architecture Program faculty members discuss their needs for any new materials that they require to support their teaching and their students' learning. Based on those discussions, the list

of any books needed to be bought for the library and the IT requirements are identified. To do so, each faculty member provides the list of textbooks and IT needs to be used in his/her courses for the following academic year. The list is then discussed and approved by the Department Council (DC). It is encouraged that faculty would choose from the large number of updated paper and/or digital resources already available in the central library. In case the textbook chosen is not available, instructors either request students to get the book on their own or arrange with the publishers to sell the textbooks in one of the city's bookstores. Additionally, the instructor can keep one or two copies of the textbooks on reserve for the students' occasional use. If software is needed, the chair requests the MI&ETS Department to provide quotes about the estimated cost. A decision about whether to acquire the software or not is made based on the available budget of the Department. In addition, the Department Chair, the College Dean and the Finance Director approvals are needed in order to launch the order.

PART ONE (I): SECTION 3 – INSTITUTIONAL AND PROGRAM CHARACTERISTICS

I.3.1 Statistical Reports

Program Student Characteristics

The following part gives some student statistics in terms of enrollment, number of graduates and completion rate. The Architecture department had a high retention rate in the previous three academic years 2016-2017, 2017-2018 and 2018-2019 of 55%, 76%, and 99% respectively.
The following are the enrollment numbers over the last two years starting Fall 2017 up to Spring 2019.

Table (34) Student Enrollment (Fall 2017)

Registration Report - Fall 2017									
College	Major	Level	Continuing Registered	Newly Registered	Total Registered	Leave of Absence	Pending Graduation due to IC/IP (not registered)	ESP Students	Total Enrolled
ECOAD	ARCH	UG	643	7	650	9	3	4	666
		FDN1	0	2	2	0	0	0	2
		FDN2	0	4	4	0	0	0	4
Total			*643*	*13*	*656*	*9*	*3*	*4*	*672*

Table (35) Student Enrollment (Spring2018)

Registration Report - Spring 2018									
College	Major	Level	Continuing Registered	New Registered	Total Registered	Leave of Absence	Pending Graduation due to IC/IP (not registered)	ESP Students	Total Enrolled
ECOAD	ARCH	UG	607	4	611	13	1	0	625
		FDN1	0	0	0	0	0	0	0
		FDN2	2	0	2	0	0	0	2
Total			609	4	613	13	1	0	627

Table (36) Student Enrollment (Fall 2018)

Fall 2018										
College	Major	Level	Continuing Registered	New Registered	Total Registered	Leave of Absence	Pending Graduation due to IC/IP (not registered)	Finished in Summer 2018	ESP Registered	Total Enrolled
ECoAD	ARCH	UG	546	11	557	5	3	2	0	567
		FDN1	0	13	13	0	0	0	0	13
		FDN2	0	9	9	0	0	0	0	9
Total			546	33	579	5	3	2	0	589

Table (37) Student Enrollment (Spring 2019)

Registration Report - Spring 2019									
College	Major	Level	Continuing Registered	New Registered	Total Registered	Leave of Absence	Pending Graduation due to IC/IP (not registered)	ESP Registered	Total Enrolled
	ARCH	UG	470	3	473	8	2	0	483
		FDN1	0	0	0	0	0	0	0
		FDN2	12	0	12	1	0	0	13
	Total		482	3	485	9	2	0	496

Table (38) Number of Graduate from the Architecture Program from 2008-2009 to 2018-2019

Year	2008 - 2009	2009-2010	2010 - 2011	2011 - 2012	2012 - 2013	2013 - 2014	2014 - 2015	2015 - 2016	2016 - 2017	2017 - 2018	2018 - 2019
No. of ARCH Graduates	**2**	**11**	**3**	**20**	**33**	**30**	**34**	**70**	**61**	**164**	**217**

Table (39) Apparent Student Completion Rate

Students	Undergraduate Programs (Fall 2017)			Undergraduate Programs (Spring 2018)			Undergraduate Programs (FALL 2018)		
	Four Years	**Five Years**	**Six Years**	**Four Years**	**Five Years**	**Six Years**	**Four Years**	**Five Years**	**Six Years**
Male	-	-	-	-	-	-	-		-
Female	-	64.2%	-	-	37.8%			91%	
Total	-	**64.2%**	-	-	**37.8%**			91%	

Table (40) Year-to-Year Progression Rates

	2015-2016			2016-2017			2017-2018			2018-2019		
Year to Year Progression	**Number Starting**	**Number Completing**	**Percentage (%)**	**Number Starting**	**Number Completing**	**Percentage (%)**	**Number Starting**	**Number Completing**	**Percentage (%)**	**Number Starting**	**Number Completing**	**Percentage (%)**
Commenced in Year 1 and continued to Year 2	135	129	95.5%	22	20	90.9%	10	10	100%	12	12	100%
Commenced in Year 2 and continued to Year 3	148	136	91.8%	110	95	86.36%	20	19	95%	10	10	100%
Commenced in Year 3 and continued to	102	100	98%	134	125	93.2%	95	90	94.1%	19	19	100%

Year 4												
Commenced in Year 4 and continued to Year 5	73	71	97.2%	100	96	96%	125	117	93.6%	90	88	97.7%
Year 5 to (graduation)	39	19	48.7%	71	39	55%	96	73	76%	117	116	99%

Graduates' GPAs

In order to verify the standards of students' achievements, benchmarking is done internally by comparing the students' performance over several semesters (e.g. graduating students) as shown below. The figures illustrate the changes in the Cumulative (CUM) for four consecutive semesters (from Fall 2017 to Spring 2019). It is clear from the results that students' GPAs are all above 2 out of 4 and highest between 3.0 and 3.5 out of 4. In terms of the grades distribution, the grades of most of the students are usually between A+ and B.

Figure (30) GPA Distribution (From Fall 2017 to Spring 2019)

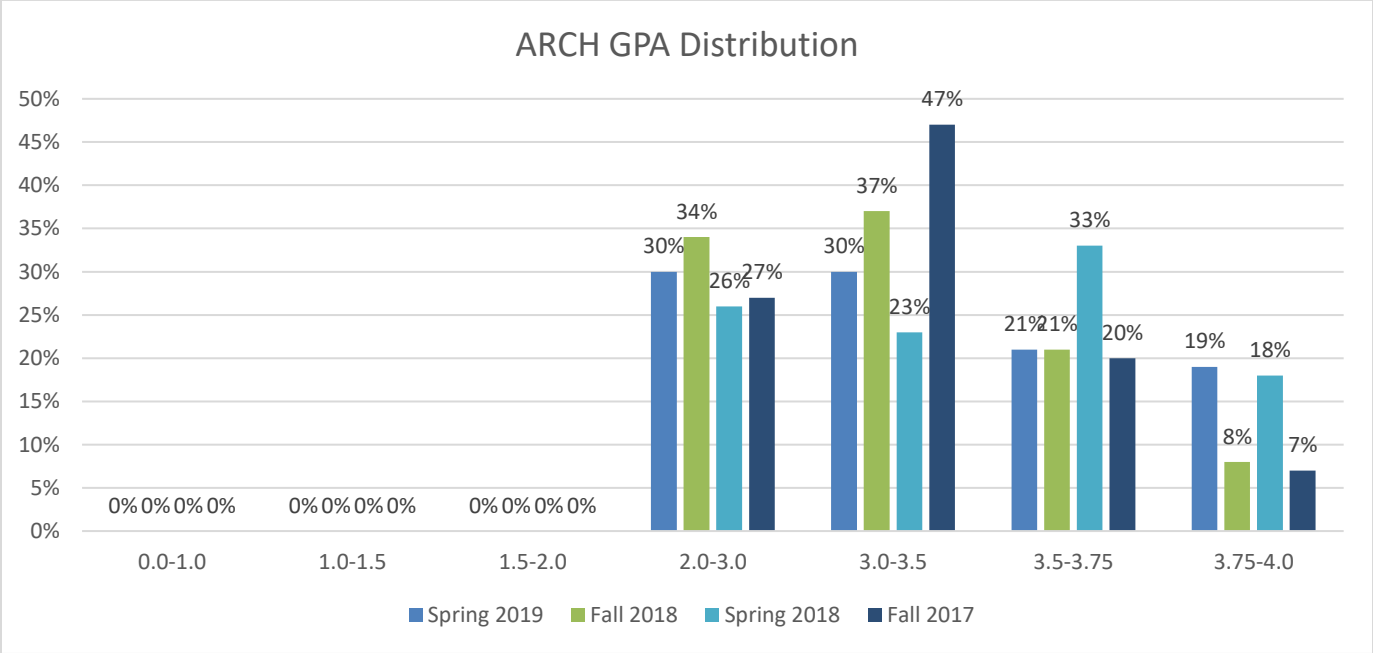
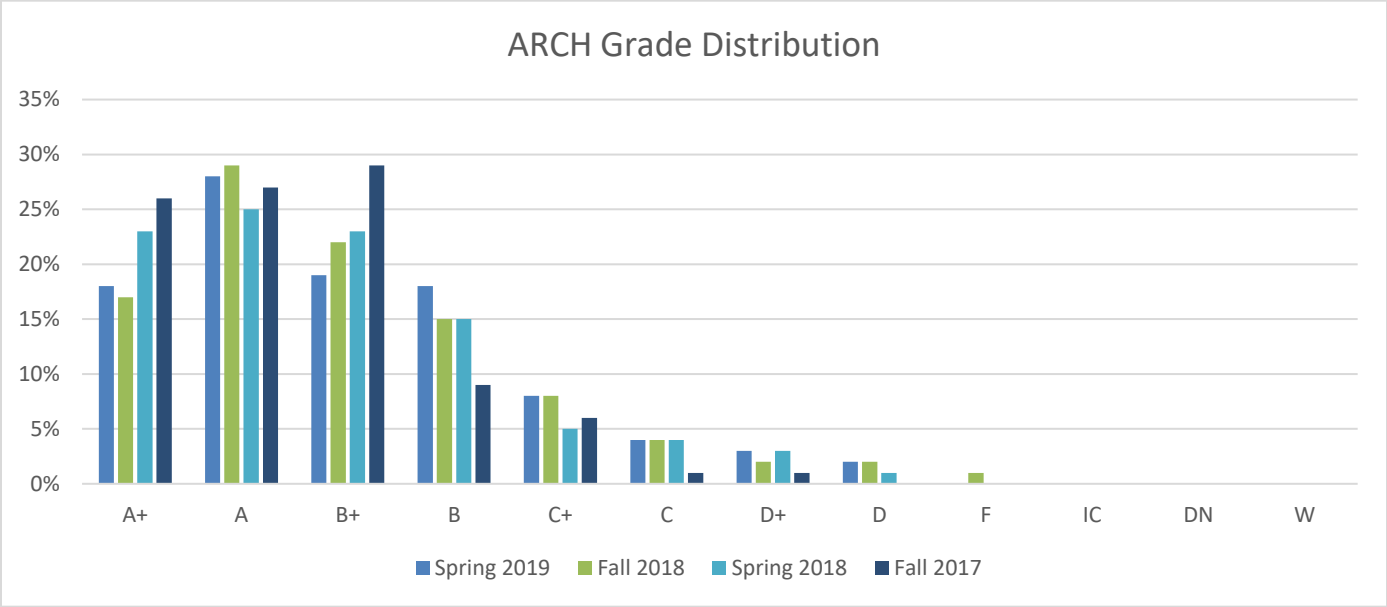


Figure (31) ARCH Grade Distribution (From Fall 2017 to Spring 2019)



Program Faculty Characteristics:

The recruitment process is an integral part of the ARCH program's efforts to ensure high quality teaching and learning to its students. It starts with a clear mapping of the qualifications required for each course delivered under the program and the program's recruitment plan based on the students' and faculty needs forecasts for the 5-years period of the strategic plan.

As for faculty needs, forecasts are made part of the institutional plan and are evaluated annually against the actual and the projected numbers of students and of faculty in order to ensure that the teaching needs for each academic year are effectively met. The following table shows the total number of faculty, their ranks and their status as full time or part-time. Most of the ARCH faculty is full time and assistant professor which is supportive of the quality of teaching and learning. The presence of a good number of professors among the faculty supports research as well.

Table (41) Teaching Staff (Fall 2017)

Number of Teaching Staff	On Campus Programs			Ranking (Full Time)				Ranking (Part Time)				
	Full time	Part time	Total	Assistant Professor	Associate Professor	Full Professor	Lecturer	Assistant Professor	Associate Professor	Full Professor	Lecturer	Instructor
Male	10	3	17	6	2	2	0	0	0	0	1	2
Female	15	3	21	10	1	1	3	0	0	0	0	3
Total	**25**	**6**	**31**	**16**	**3**	**3**	**3**	**0**	**0**	**0**	**1**	**5**

Table (42) Teaching Staff (Spring 2018)

Number of Teaching Staff	On Campus Programs			Ranking (Full Time)				Ranking (Part Time)				
	Full time	Part time	Total	Assistant Professor	Associate Professor	Full Professor	Lecturer	Assistant Professor	Associate Professor	Full Professor	Lecturer	Instructor
Male	14	3	17	9	3	2	0	1	0	0	2	0
Female	15	6	21	10	1	1	3	0	0	0	3	3
Total	**29**	**9**	**38**	**19**	**4**	**3**	**3**	**1**	**0**	**0**	**5**	**3**

Table (43) Teaching Staff (Fall 2018)

Number of Teaching Staff	On Campus Programs			Ranking (Full Time)				Ranking (Part Time)				
	Full time	Part time	Total	Assistant Professor	Associate Professor	Full Professor	Lecturer	Assistant Professor	Associate Professor	Full Professor	Lecturer	Instructor
Male	12	4	16	7	2	4	0	2	0	0	2	0
Female	14	6	20	9	1	1	3	2	0	0	1	3
Total	**26**	**10**	**36**	**15**	**3**	**5**	**3**	**4**	**0**	**0**	**3**	**3**

Table (44) Teaching Staff (Spring 2019)

Number of Teaching Staff	On Campus Programs			Ranking (Full Time)				Ranking (Part Time)				
	Full time	Part time	Total	Assistant Professor	Associate Professor	Full Professor	Lecturer	Assistant Professor	Associate Professor	Full Professor	Lecturer	Instructor
Male	13	4	17	7	2	4	0	2	0	0	2	0
Female	14	3	17	9	1	1	3	1	0	0	0	2
Total	**27**	**7**	**34**	**16**	**3**	**5**	**3**	**3**	**0**	**0**	**2**	**2**

I.3.2 Faculty Credentials

Please refer to Appendix 2 for resumes for each instructional faculty member teaching in the professional degree program. An exhibit of faculty work will also be included in the team room.
Requirements for appointment, tenure, and promotion are included in section I.2.1 under "Faculty Promotion."

PART ONE (I): SECTION 4 – POLICY REVIEW

The following information will be provided in the team room at the time of the visit:

- Architecture policies & procedures that show Learning Culture and Social Equity Policy
- Student Learning Outcomes Assessment Manual
- Undergraduate Catalogue
- Undergraduate Study and Examination Bylaws
- Faculty Promotion Guidelines
- Job Descriptions for all Faculty and Staff
- Admissions Requirements
- Advising Manual
- Research Policy & Procedures
- Quality Assurance Manual
- Policies on use and integration of digital media in architecture curriculum
- Policies on academic integrity for students (e.g., cheating and plagiarism)
- Policies on library and information resources collection development
- Sabbatical leave guidelines
- Research Grants System
- Travel Grants System
- Workload & Timetables
- Tarbaweat Effat
- IQRA Values
- Effat University Strategic Plan (2017-2022)
- ARCH Department Strategic Plan (2017-2022)
- Research Output for ARCH Faculty & Students
- ARCH Course Specifications
- ARCH Program Specifications
- Student-to-faculty ratios for all components of the curriculum (i.e., studio, classroom/lecture, seminar)
- Square feet per student for space designated for studio-based learning
- Square feet per faculty member for space designated for support of all faculty activities and responsibility

PART TWO: EDUCATIONAL OUTCOMES AND CURRICULUM

PART TWO (II): SECTION 1 - STUDENT PERFORMANCE CRITERIA

II.1.1 Student Performance Criteria

The Architecture Program aims to improve quality, increase effectiveness, and continually strive towards excellence. The learning outcomes for the Architecture Program are consistent with the National Qualifications Framework as described in section 1.

II.1.2 Regional Accreditation

The students' performance criteria are also consistent with the National Architectural Accrediting Board (NAAB) criteria for architecture education. In the following part, the learning outcomes of Architecture Program are demonstrated. The criteria encompass two levels of accomplishment:

▪**Understanding**— The capacity to classify, compare, summarize, explain, and/or interpret information.

▪**Ability**— Proficiency in using specific information to accomplish a task, correctly selecting the appropriate information, and accurately applying it to the solution of a specific problem, while also distinguishing the effects of its implementation.

			Realm		Realm A: Critical Thinking and Representation											Realm B:Integrated building practice, technical skills and knowledge												Realm C: Leadership & practice								
			SPC		A.1	A.2	A.3	A.4	A.5	A.6	A.7	A.8	A.9	A.10	A.11	B.1	B.3	B.5	B.4	B.5	B.6	B.7	B.8	B.9	B.10	B.11	B.12	C.1	C.2	C.3	C.4	C.5	C.6	C.7	C.8	C.9
			SPC Name		Communication Skills	Design Thinking Skills	Visual Communication Skills	Use of Precedents	Investigation Skills	Formal Ordering Principles	Fundamental Aesthetic Principles	Collaboration	Graphic and Presentation Skills	Project Management	Applied Research	Professional Behavior	Accessibility	Sustainability	Site Design	Life Safety	Comprehensive Design	Technical Documentation	Environmental Systems	Structural Systems	Building Envelope Systems	Building Service Systems	Building Materials and Assemblies	Integrated Building Design	Architectural Practice	Project Management	Financial Considerations	Client Role in Architecture	Project Delivery Methods	Practice Management	Leadership	Legal Responsibility	Ethics and Professional Conduct	Community and Social Responsibility
			Understanding (U) or Ability (A)		A	A	A	A	A	A	A	U	U	U	U	A	A	A	A	A	A	U	U	U	U	U	U	A	U	U	U	U	U	U	U	U
			Effat ARCH Course	Cr																															
Year 1	Semester		ARCH 101: Architecture Design Studio1	6						■																									
			ARCH 120: FreehandDrawing	3			■																													
			College Requirement: Mathematics for Architecture and	3																																
			University Requirement: Information, Media and Technology	3																																
			University Requirement: Project Based Language and Critical	3																																
	Semester		ARCH 102: Architecture Design Studio2	6	■	■				■	■																									
			ARCH 150: Computer-Aided Architectural Design1	3			■																													
			University Requirement: Calculus for Engineers	3																																
			University Requirement: Linguistic Competence (Arabic)	3																																
			University Requirement: Linguistic Competence (English)	2																																
			University Requirement: Social and Moral Values in Islam	2																																
Year 2	Semester		ARCH 203: Architecture Design Studio3	6	■					■						■																				
			ARCH 231: History of Architecture	3					■		■		■	■																							
			ARCH 240: Architecture, Culture and Environment	3									■	■									■														
			University Requirement: QuantitativeReasoning	3																																
			University Requirement: Islamic Thought and Ethics	3																																
			University Requirement: Physical and Environmental	3																																
	Semester		ARCH 204: Architecture Design Studio4	6		■																													
			ARCH 232: History of IslamicArchitecture	3									■																							
			ARCH 252: BuildingConstruction	3																				■			■									
			ARCH 256: Computer-Aided Architectural Design2	3			■																													
			University Requirement: Scientific Literacy	3																																
Year 3	Semester		ARCH 305: Architecture Design Studio5	6		■									■		■		■																	
			ARCH 341: Theory of Architecture	3	■				■				■	■																							
			ARCH 342: Urban Design	3									■																	■							
			ARCH 350: Structure in Architecture1	3								■												■												
			University Requirement: Research/Seminar	3							■																										
	Semester		ARCH 306: Architecture Design Studio6	6													■		■											■						
			ARCH 343: Introduction to LandscapeArchitecture	3									■						■																	
			ARCH 454: Mechanical, Electrical and Safety Systems	3															■			■				■										
			Architecture Elective 1	3																																
			University Requirement: CulturalLiteracy	3																																
Year 4	Semester		ARCH 407: Architecture Design Studio7	6											■				■				■										■		■
			ARCH 351: Structure in Architecture2	3																			■												
			ARCH 352: Building Structures andMaterials	3				■				■												■		■										
			ARCH 340: Research Methods in Architecture and Urban	3	■										■																					
			University Requirement: Global Awareness	3																																
	Semester		ARCH 408: Architecture Design Studio8	6				■										■		■									■							
			ARCH 453: Energy andDesign	3																		■		■												
			ARCH 455: WorkingDrawings	3				■															■				■									
			Architecture Elective 2	3																																
			University Requirement: Linguistic Competence (Foreign	3																																
	Semester		ARCH 571: Capstone ProjectPreparation	3					■							■													■							
			ARCH 444: Housing andEconomics	3																		■								■		■			■		
			ARCH 446: Comparative Architectural Thoughts	3	■				■				■	■																							
			ARCH 557: ProfessionalPractices	3																									■	■		■		■	■	■
			Architecture Elective 3	3																																
			University Requirement: Linguistic Competence (Foreign	3																																
	Semester		ARCH 572: Capstone Project	6	■												■		■	■					■								■			
			ARCH 556: ProjectManagement	3																										■	■	■		■		
			Architecture Elective 4	3																																
			University Requirement: Islamic Thought and Ethics	3																																
			University Requirement: CivicEngagement	3																																

Table (45) SPC According to NAAB

PART TWO (II): SECTION 2 - CURRICULAR FRAMEWORK

II.2.1 National Authorization

a. The Approval of the Old ARCH Curriculum Study Plan

The following letter represents the official approval from Ministry of Education (MoE) on the ARCH program, and the approval of the curriculum study plan in 2011. This license approval is obligatory to be updated each five years.

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة التعليم العالي
مكتب الوزير
(٢٦٩)

١٤٣٢/١٠/٢٦هـ ١٣٩١٨٤

(برقية خطية)

صاحبة السمو الملكي
نائب رئيس مجلس الأمناء والمشرف العام على جامعة عفت الأهلية حفظها الله

السلام عليكم ورحمة الله وبركاته.

إشارة إلى خطاب الجامعة رقم PO/024.4/8.1/Ltr/Jun 2011 بشأن طلب الجامعة إقرار الخطة الدراسية لبرنامج بكالوريوس العمارة المحدث الذي تزمع الجامعة تقديمه خلال العام القادم.

أود إفادة سموكم الكريم بموافقة الوزارة على اعتماد الخطة الدراسية على أن تلتزم الجامعة باستيفاء متطلبات البدء في البرنامج من أعضاء هيئة التدريس وتوفير القاعات الدراسية والمرافق اللازمة والكتابة للوزارة قبل الإعلان أو البدء في تقديم البرنامج، علماً بأن ذلك مرخص للطالبات فقط.

ولسموكم خالص تحياتي.

وزير التعليم العالي

د. خالد بن محمد العنقري

b. The Approval of the Updated Curriculum Study Plan.

The following letter represents the official approval from Ministry of Education (MoE) on the ARCH program, and the approval of the updated curriculum study plan in 2018. This license approval is obligatory to be updated each five years.

المملكة العربية السعودية
وزارة التعليم
وكالة التعليم الأهلي
الإدارة العامة للتعليم الأهلي العالي

وزارة التعليم
Ministry of Education

الموضوع/الموافقة على الخطة الدراسية لبرنامج بكالوريوس العلوم في العمارة (جامعة عفت)

سعادة رئيسة جامعة عفت

سلمها الله

السلام عليكم ورحمة الله وبركاته

أشير إلى خطابكم رقم ٨١٠ بتاريخ ١٤٣٩/٨/٢٠هـ، المتضمن طلب الموافقة على تحديث الخطة الدراسية لبرنامج بكالوريوس العلوم في العمارة والتي تم تحكيمها من قبل:

- جامعة الملك فهد للبترول والمعادن.
- جامعة ميامي (الولايات المتحدة الأمريكية).

نفيدكم بموافقة الوزارة على تحديث الخطة الدراسية لبرنامج بكالوريوس العلوم في العمارة.

وتقبلوا أطيب التحيات والتقدير،،،

المشرف العام على وكالة التعليم الأهلي

د. سعد بن سعود آل فهيد

II.2.2 Professional Degrees and Curriculum

Effat University, College of Architecture and Design, Department of Architecture offers one degree for which it is seeking Substantial Equivalency Status. This degree is a five-year Bachelor of Architecture (BArch) degree. This program requires a total of 171 credit hours, as indicated in the curriculum matrix below. As this matrix indicates, the BArch program is arranged in 10 (ten) consecutive semesters.

Course Organization

a. Old Curriculum Study plan

The Bachelor in Architecture (B.Arch.) at Effat University consists of 171 Credits, as detailed in the following tables 47 to 51 for compulsory and general courses.

A program or department manual should be available for students or other stakeholders and a copy of the information relating to this program should be attached to the program specification. This information should include required and elective courses, credit hour requirements and department/college and institution requirements, and details of courses to be taken in each year or semester.

Program Graduation Requirements of the Old ARCH Program

The Architecture program is a five-year academic program of 171 credit hours.

Table (46) Graduation Requirements in terms of Credit Hours

	Compulsory	Architecture Technical Electives	Total
General Education Requirements	42		**42**
College Core MATH	3		**3**
ARCH Major Requirements	114	12	**126**
Total	159	12	**171**

The General Education Program requirements, which form the core foundation for students throughout the university, are listed below. The incorporation of the General Education courses in the Architecture Program is presented in the Academic Plan of the B.Sc. Architecture Program.

Table (47) University GEP Requirements: 42 Credit Hours

Pillar	Credits	Category	Courses	Credits
Skills Development	20	Linguistic Communication (English)	GENG 161	2
			Any course from the category	2
		Linguistic Communication (Arabic)	Any course from the category	3
		Linguistic Communication (Foreign Languages)	Any two courses from the Category	4
		Quantitative Reasoning	GMAT 141A	3
			GSTA 140 or GSTA 141	3
		Information, Media and Technology	Any course from the category	3

Literacies	9	Scientific Literacy	GPHY 112	3
		Global Awareness	Any course from the category	3
		Cultural Literacy	Any course from the category	3
Cultivating Positive Disposition	10	Physical and Environmental Wellbeing	Any course from the category	2
		Islamic Thought and Ethics	GISL 171	2
			Any two courses from the category	4
		Civic Engagement	Any course from the category	2
Interdisciplinary Research	3		GSEM 200	3
Total	**42**			**42**

Table (48) ARCH Major Requirements: 129 Credit Hours

ARCH MAJOR REQUIREMENTS		**Credits**
Compulsory Courses (117 Credit Hours)	College MATH Requirements	3
	ARCH Requirements	114
Major Electives	Architecture Technical Electives Requirements	12
TOTAL		**129**

Compulsory Courses: 117 Credit Hours

To fulfil the requirements for graduation, all Architecture students must successfully complete the following courses:

Table (49) College MATH Requirements: 3 Credit Hours

Dept. or Section Prefix and Course No.	**Course Title**	**Credits (Lecture-practical-Total)**	**Prerequisites**
MATH 127	Calculus for Engineers	2-2-3	MATH 141A*

Table (50) ARCH Requirements: 114 Credit Hours

Dept. or Section Prefix and Course No.	**Course Title**	**Credits (Lecture-Practical-Total)**	**Prerequisites**
ARCH 101	Architecture Design Studio -1	0-10-5	-
ARCH 102	Architecture Design Studio -2	0-10-5	ARCH 101
ARCH 120	Freehand Drawing	0-6-3	-
ARCH 150	Computer-Aided Architectural Design -1	2-2-3	ARCH 101

ARCH 203	Architecture Design Studio -3	0-10-5	ARCH 102
ARCH 204	Architecture Design Studio -4	0-10-5	ARCH 203
ARCH 231	History of Architecture	3-0-3	-
ARCH 232	History of Islamic Architecture	3-0-3	ARCH 231
ARCH 240	Architecture, Culture, and Environment	3-0-3	-
ARCH 252	Building Construction	3-0-3	ARCH 150
ARCH 256	Computer-Aided Architectural Design -2	2-2-3	ARCH 150
ARCH 305	Architecture Design Studio -5	0-10-5	ARCH 204 & ARCH 252
ARCH 306	Architecture Design Studio -6	0-10-5	ARCH 305 & ARCH 342
ARCH 340	Research Methods in Architecture and Urban Design	1-2-2	GSEM 200*
ARCH 341	Theory of Architecture	3-0-3	ARCH 231
ARCH 342	Urban Design	3-0-3	ARCH 231
ARCH 343	Introduction to Landscape Architecture	2-2-3	ARCH 240
ARCH 350	Structure in Architecture -1	3-0-3	ARCH 252 & GPHY 112
ARCH 351	Structure in Architecture -2	3-0-3	ARCH 350
ARCH 352	Building Structures and Materials	3-0-3	ARCH 351
ARCH 407	Architecture Design Studio -7	1-10-6	ARCH 306 & ARCH 351 Good Standing
ARCH 408	Architecture Design Studio -8	1-10-6	ARCH 407 & ARCH 455
ARCH 444	Housing and Economics	3-0-3	ARCH 342
ARCH 446	Comparative Architectural Thoughts	3-0-3	ARCH 341
ARCH 453	Energy and Design	2-1-3	ARCH 240
ARCH 454	Mechanical, Electrical, and Safety Systems	3-0-3	ARCH 252
ARCH 455	Working Drawings	1-4-3	ARCH 351
ARCH 556	Project Management	3-0-3	ARCH 455
ARCH 557	Professional Practice	3-0-3	Internship
ARCH 571	Architecture Design studio -9: Capstone Project-1	0-10-5	ARCH 408 Good Standing
ARCH 572	Architecture Design studio -10: Capstone Project -2	0-10-5	ARCH 571 Good Standing
Total		**114**	

All Architecture students, in consultation with their academic advisor, must successfully complete 12 credit hours from the approved list of technical electives below:

Table (51) Architecture Electives: 12 Credit Hours

Dept. or Section Prefix And Course No.	Course Title	Credits (Lecture- Practical- Total)	Prerequisites
ARCH 361	Photography	3-0-3	-
ARCH 362	Saudi Traditional Architecture	3-0-3	ARCH 232
ARCH 363	Psychology and Sociology in Design	3-0-3	ARCH 240
ARCH 364	Color and Lighting Principles	3-0-3	ARCH 252
ARCH 365	Acoustics in Architecture	3-0-3	ARCH 252
ARCH 366	Computer-Aided Architectural Design -3	2-2-3	ARCH 256
ARCH 367	Facilities Management	3-0-3	ARCH 252
ARCH 368	Special Topics in Architecture	3-0-3	Dept. Approval
ARCH 369	Approved Courses	3-0-3	Dept. Approval
ARCH 461	Planning and Design of Human Settlement	2-2-3	ARCH 342
ARCH 462	Urban Conservation	3-0-3	ARCH 342
ARCH 463	Historic Building Restoration	3-0-3	ARCH 232
ARCH 464	Introduction to Interior Design	3-0-3	ARCH 204
ARCH 465	Introduction to Real Estate	3-0-3	ARCH 306
ARCH 466	Introduction to Building Economics	3-0-3	ARCH 306

b. New ARCH Curriculum Study Plan in comparison to the old ARCH Curriculum Study Plan

1. Graduation Requirements Based on the Updated Study Plan

No changes were made in the graduation requirements as it still includes the successful completion of a minimum of 171 credit hours as mentioned in table 47.

2. Equivalency Tables

The following tables show exactly the similarities and differences between the old and new ARCH Curriculum. The parts highlighted in red below are the ones that show changes in credits and those highlighted in blue show changes in numbering of courses. The parts not highlighted show the parts that were not changed.

a. Major ARCH courses

New ARCH Program				**Old ARCH curriculum**	
Major courses				**Major courses**	
Dept. or Section Prefix and Course No.	**Course Title**	**Credits (Lecture- Practical- Total)**	**Prerequisites**	**Equivalency**	**Comment**
ARCH 101	Architecture Design Studio -1	0-10-5	-	ARCH101	Same credits
ARCH 102	Architecture Design Studio -2	0-10-5	ARCH 101	ARCH102	Same credits

New ARCH Program				**Old ARCH curriculum**	
Major courses				**Major courses**	
Dept. or Section Prefix and Course No.	**Course Title**	**Credits (Lecture-Practical-Total)**	**Prerequisites**	**Equivalency**	**Comment**
ARCH 120	Freehand Drawing	0-6-3	-	ARCH120	Same credits
ARCH 150	Computer-Aided Architectural Design -1	2-2-3	ARCH 101	ARCH150	Same credits
ARCH 203	Architecture Design Studio -3	0-10-5	ARCH 102	ARCH203	Same credits
ARCH 204	Architecture Design Studio -4	0-10-5	ARCH 203	ARCH204	Same credits
ARCH 231	History of Architecture	3-0-3	-	ARCH 231	Same credits
ARCH 232	History of Islamic Architecture	3-0-3	ARCH 231	ARCH 232	Same credits
ARCH 240	Architecture, Culture, and Environment	3-0-3	-	ARCH 240	Same credits
ARCH 252	Building Construction	3-0-3	ARCH 150	ARCH 252	Same credits
ARCH 256	Computer-Aided Architectural Design -2	2-2-3	ARCH 150	ARCH 256	Same credits
ARCH 305	Architecture Design Studio -5	0-10-5	ARCH 204 & ARCH 252	ARCH 305 (6 Credits)	Different credits +1 Credit
ARCH 306	Architecture Design Studio -6	0-10-5	ARCH 305 & ARCH 342	ARCH 306 (6 Credits)	Different credits +1 Credit
ARCH 340	Research Methods in Architecture and Urban Design	1-2-2	GSEM 200*	ARCH 340	Same credits
ARCH 341	Theory of Architecture	3-0-3	ARCH 231	ARCH 341	Same credits
ARCH 342	Urban Design	3-0-3	ARCH 231	ARCH 342	Same credits
ARCH 343	Introduction to Landscape Architecture	3-0-3	ARCH 240	ARCH 343	Same credits
ARCH 350	Structure in Architecture -1	3-0-3	ARCH 252 & GPHY 112	ARCH 350	Same credits
ARCH 351	Structure in Architecture -2	3-0-3	ARCH 350	ARCH 351	Same credits
ARCH 352	Building Structures and Materials	3-0-3	ARCH 351	ARCH 352	Same credits
ARCH 407	Architecture Design Studio -7	1-10-6	ARCH 306 & ARCH 351 & Good Standing	ARCH 407	Same credits

New ARCH Program				**Old ARCH curriculum**	
Major courses				**Major courses**	
Dept. or Section Prefix and Course No.	**Course Title**	**Credits (Lecture-Practical-Total)**	**Prerequisites**	**Equivalency**	**Comment**
ARCH 408	Architecture Design Studio -8	1-10-6	ARCH 407 & ARCH 455 & Good	ARCH 408	Same credits
ARCH 444	Housing and Economics	3-0-3	ARCH 342	ARCH 444	Same credits
ARCH 446	Comparative Architectural Thoughts	3-0-3	ARCH 341	ARCH 446	Same credits
ARCH 453	Energy and Design	2-2-3	ARCH 240	ARCH 453	Same credits
ARCH 454	Mechanical, Electrical, and Safety Systems	3-0-3	ARCH 252	ARCH 454	Same credits
ARCH 455	Working Drawings	1-4-3	ARCH 351	ARCH 455	Same credits
ARCH 456	Project Management	3-0-3	ARCH 352	ARCH 556	Same credits change in numbering
ARCH 457	Professional Practice	3-0-3	Internship	ARCH 557	Same credits change in numbering
ARCH 471	Architecture Design studio -9: Capstone Project-1	0-10-5	ARCH 408 & Good Standing	ARCH 571 (2 credits)	Different credits &change in numbering
ARCH 472	Architecture Design studio -10: Capstone Project -2	0-10-5	ARCH 471 & Good Standing	ARCH 572 (6 credits)	Different credits &change in numbering
Total		**114**			**114**

Red color (changes in credits)
Blue color (changes in numbering)

Most of the ARCH students were enrolled under the new plan with the following consideration:

- Freshman students can join the new program smoothly as all changes are happening from year (3)
- Students who finished years 1&2, and finalized studios 1, 2, 3 & 4 can also join the new plan smoothly as all changes is happening from year (3) in studio (5) & studio (6)
- Students who finished years 1, 2 & 3, and finalized studios1, 2,3,4,5 & 6 can also join the new plan smoothly but they will graduate with two extra credits.
- Students who finished years 1, 2, 3 & 4 and finalized studios 1, 2, 3, 4, 5, 6, and 7 and registered in Fall 2018 in studio (8) can also join the new plan smoothly, but they will graduate with two extra credits.
- Senior students who already obtained more than 130 credits and are registered in fall2018 in ARCH571 will not join this new program.

- Senior students who already obtained more than 150 credits and are registered in fall2018 in ARCH572 will not join this new program.

3. ARCH Courses Offered in the New ARCH Plan

Students are fully aware prior to registration what courses in the Architecture Program are offered every semester. The offering plan includes the following ARCH Core courses with electives:

COURSE	CODE	TITLE	CR.	FREQUENCY
		100-level Courses		
ARCH	101	Architecture Design Studio -1	5	Fall
ARCH	102	Architecture Design Studio -2	5	Spring
ARCH	120	Freehand Drawing	3	Fall
ARCH	150	Computer-Aided Architectural Design -1	3	Spring
		200-level Courses		
ARCH	230	Architecture Design Studio -3	5	Fall
ARCH	231	History of Architecture	3	Fall
ARCH	240	Architecture, Culture, and Environment	3	Fall
ARCH	204	Architecture Design Studio -4	5	Spring
ARCH	256	Computer-Aided Architectural Design -2	3	Spring
ARCH	232	History of Islamic Architecture	3	Spring
ARCH	252	Building Construction	3	Spring
		300-level Courses		
ARCH	305	Architecture Design Studio -5	5	Fall
ARCH	306	Architecture Design Studio -6	5	Spring
ARCH	340	Research Methods in Architecture and Urban Design	2	Fall
ARCH	341	Theory of Architecture	3	Fall
ARCH	342	Urban Design	3	Fall
ARCH	343	Introduction to Landscape Architecture	3	Spring
ARCH	350	Structure in Architecture -1	3	Fall
ARCH	351	Structure in Architecture -2	3	Spring
ARCH	352	Building Structures and Materials	3	Fall
ARCH	361	Photography	3	Fall and Spring
ARCH	362	Saudi Traditional Architecture	3	Fall and Spring
ARCH	363	Psychology and Sociology in Design	3	Fall and Spring
ARCH	364	Color and Lighting Principles	3	Fall and Spring
ARCH	365	Acoustics in Architecture	3	Fall and Spring
ARCH	366	Computer-Aided Architectural Design -3	3	Fall and Spring
ARCH	367	Facilities Management	3	Fall and Spring
ARCH	368	Special Topics in Architecture	3	Fall and Spring
ARCH	369	Approved Courses	3	Fall and Spring
		400-level Courses		
ARCH	407	Architecture Design Studio -7	6	Fall
ARCH	408	Architecture Design Studio -8	6	Spring
ARCH	444	Housing and Economics	3	Fall
ARCH	446	Comparative Architectural Thoughts	3	Fall
ARCH	453	Energy and Design	3	Spring
ARCH	454	Mechanical, Electrical, and Safety Systems	3	Fall

ARCH	455	Working Drawings	3	Spring
ARCH	456	Project Management	3	Spring
ARCH	457	Professional Practice	3	Fall
ARCH	461	Planning and Design of Human Settlement	3	Fall and Spring
ARCH	462	Urban Conservation	3	Fall and Spring
ARCH	463	Historic Building Restoration	3	Fall and Spring
ARCH	464	Introduction to Interior Design	3	Fall and Spring
ARCH	465	Introduction to Real Estate	3	Fall and Spring
ARCH	466	Introduction to Building Economics	3	Fall and Spring
ARCH	471	Architecture Design studio -9: Capstone Project-1	5	Fall
ARCH	472	Architecture Design studio -10: Capstone Project -2	5	Spring

New ARCH Curriculum Study plan

Bachelor of Science in Architecture									
Freshman Year									
Year 1 - Semester-1					**Year 1- Semester-2**				
Course Code	**Course Name**	**LEC**	**LAB**	**CR**	**Course Code**	**Course Name**	**LEC**	**LAB**	**CR**
ARCH 101	Architecture Design Studio -1	0	10	5	**ARCH 102**	Architecture Design Studio - 2	0	10	5
ARCH 120	Freehand Drawing	0	6	3	**ARCH 150**	Computer-Aided Architectural Design 1	2	2	3
GMTH 141A	Mathematics for Architecture and Design	3	0	3	**MATH 127**	Calculus for Engineers	2	2	3
	Information, Media, and Technology	2	2	3		Linguistic Communication (Arabic)	2	2	3
GENG 161	Project based Language & Critical Thinking	1	2	2		Linguistic Communication (English)	2	1	2
					GISL 171	Social and Moral Values in Islam	2	1	2
Total Credit Hours				**16**	**Total Credit Hours**				**18**
Sophomore Year									
Year 2 - Semester-3					**Year 2 - Semester-4**				
Course Code	**Course Name**	**LEC**	**LAB**	**CR**	**Course Code**	**Course Name**	**LEC**	**LAB**	**CR**
ARCH 203	Architecture Design Studio -3	0	10	5	**ARCH 204**	Architecture Design Studio -4	0	10	5
ARCH 231	History of Architecture	3	0	3	**ARCH 256**	Computer-Aided Architectural Design-2	2	2	3
ARCH 240	Architecture, Culture, and Environment	3	0	3	**ARCH 232**	History of Islamic Architecture	3	0	3
	Quantitative	2	2	3	**ARCH**	Building Constructions	3	0	3

	Reasoning				**252**				
	Islamic Thought and Ethics Requirement II	2	1	2	**GPHY 112**	Foundations in Physics	2	2	3
	Physical & Environmental Wellbeing	2	1	2					
Total Credit Hours				**18**	**Total Credit Hours**				**17**
Junior Year									
Year 3 - Semester-5					**Year 3 - Semester-6**				
Course Code	**Course Name**	**LEC**	**LAB**	**CR**	**Course Code**	**Course Name**	**LEC**	**LAB**	**CR**
ARCH 305	Architecture Design Studio- 5	0	10	5	ARCH 306	Architecture Design Studio-6	0	10	5
ARCH 342	Urban Design	3	0	3	ARCH 343	Introduction to Landscape Architecture	3	0	3
ARCH 341	Theory of Architecture	3	0	3	ARCH 454	Mechanical, Electrical & Safety Systems	3	0	3
ARCH 350	Structure in Architecture-1	3	0	3		Cultural Literacy	3	0	3
GSEM 200	Research Seminar	2	2	3		Architecture Elective (1)			3
Total Credit Hours				**18**	**Total Credit Hours**				**18**
Senior 1 Year									
Year 4 - Semester-7					**Year 4 - Semester-8**				
Course Code	**Course Name**	**LEC**	**LAB**	**CR**	**Course Code**	**Course Name**	**LEC**	**LAB**	**CR**
ARCH 407	Architecture Design Studio -7	1	10	6	ARCH 408	Architecture Design Studio-8	1	10	6
ARCH 351	Structure in Architecture-2	3	0	3	ARCH 453	Energy and Design	3	0	3
ARCH 352	Building Structures and Materials	3	0	3	ARCH 455	Working Drawings	0	6	3
ARCH 340	Research Methods in Architecture and Urban Design	1	2	2		Linguistic Communication (Foreign Languages I)	2	1	2
	Global Awareness	2	2	3		Architecture Elective (2)			3
Total Credit Hours				**17**	**Total Credit Hours**				**17**
Senior 2 Year									
Year 5 - Semester-9					**Year 5 - Semester-10**				
Course Code	**Course Name**	**LEC**	**LAB**	**CR**	**Course Code**	**Course Name**	**LEC**	**LAB**	**CR**
ARCH 471	Architecture Design Studio-9: Capstone Project -1	0	10	5	ARCH 472	Architecture Design Studio-10: Capstone Project -2	0	10	5

ARCH 444	Housing and Economics	3	0	3	ARCH 456	Project Management	3	0	3
ARCH 446	Comparative Architectural Thoughts	3	0	3		Architecture Elective (4)			3
ARCH 457	Professional Practice	3	0	3		Islamic Thought and Ethics Requirement II	2	1	2
	Architecture Elective (3)			3		Civic Engagement	1	2	2
	Linguistic Communication (Foreign Languages II)	2	1	2					
Total Credit Hours				**16**	**Total Credit Hours**				**16**
Total credit hours required for Architecture Program								**171**	

II.2.3 Curriculum Review and Development

The Architecture department at EU is the first and only department that offers an accredited program in architecture for female students in KSA. This is an advantage that could be considered as strength, especially with the good recognition the department acquired within the local community. In order to ensure that the quality of teaching and learning is continuously improving, the program evaluation and review process follows a 5-year cycle. However, the courses are evaluated every semester in order to assess the effectiveness of the teaching strategies and the assessment tools planned in the course and the program specifications.

Faculty members report about each course they teach based on their course delivery and student's results in their course report. At the end of each academic-year, the chair of the ARCH department reports on the program performance based on the course reports in the program annual report.

An action plan section at the end of the program report addresses problems areas and their possible solutions. The program report is approved by the Dean of the ECoAD and by the Provost. The Deanship of Quality Assurance has access to those documents in order to further review them. Feedback is then sent by the Dean and/or Provost and/or Quality Assurance about any comments, extra explanations or changes.

In addition to those reports, biweekly meetings are held at the departmental level where several issues and topics are discussed.

Students' feedback is very important for the program as well. Students evaluate their courses at the end of every semester and the results of the courses evaluation are compiled and added to the course report, the program reports and the SAQRs which are submitted at the end of every semester.

At institutional level, student experience surveys are conducted for all students and for senior graduating students by the end of every semester. The following figures show the program survey results on evaluation of learning for Fall 2017 and Spring 2018

Fall 2017

Total Satisfaction Rate	3.07/5
1. Mission Awareness and Evaluation of Leadership	3.25
2. Help and Support of my Learning	3.35
3. Resources to Support my Learning	3.54
4. Evaluation of My Learning	3.13
5. Overall Evaluation	3.6

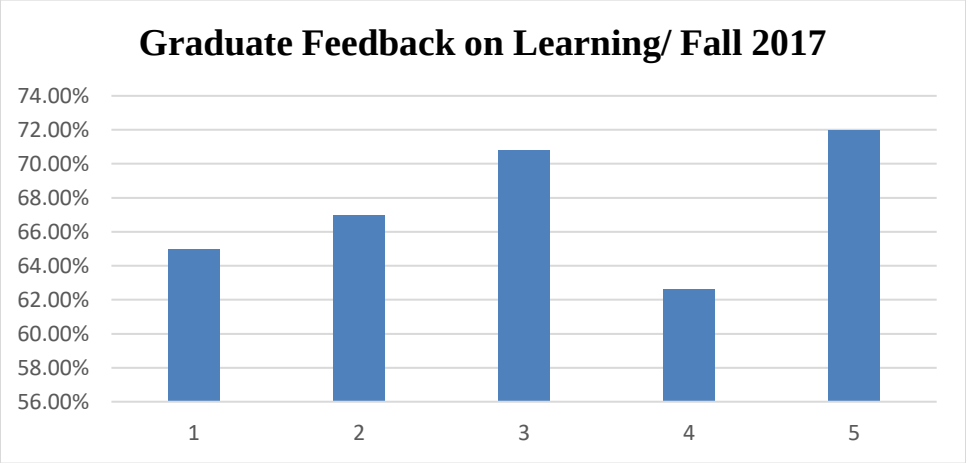


Figure (32) Program Survey Results on Evaluation of Learning

Spring 2018

Total Satisfaction Rate	3.84/5
1. Mission Awareness and Evaluation of Leadership	3.87
2. Help and Support of my Learning	4.03
3. Resources to Support my Learning	3.8
4. Evaluation of My Learning	3.56
5. Overall Evaluation	3.93

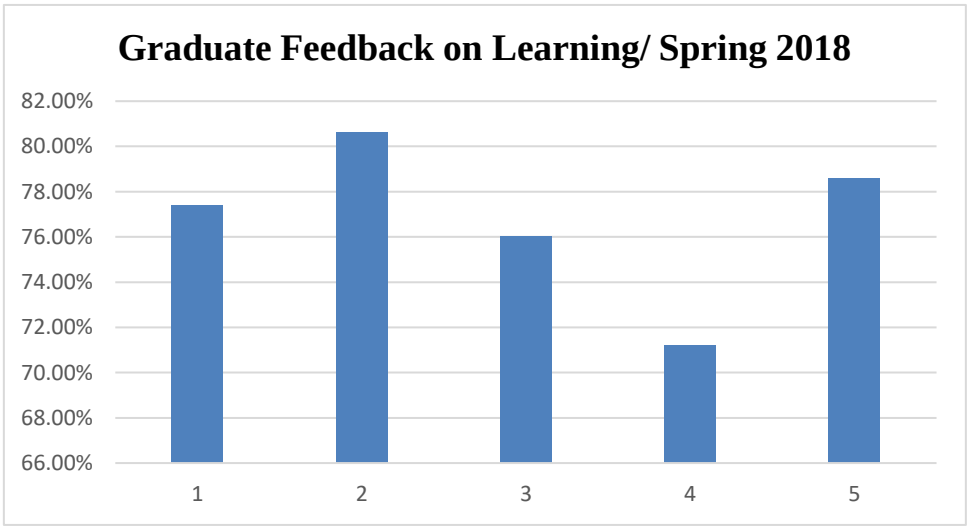


Figure (33) Program Survey Results on Evaluation of Learning

Fall 2018

Total Satisfaction Rate	**3.89/5**

1. Mission Awareness and Evaluation of Leadership	**3.99**
2. Help and Support of my Learning	**3.97**
3. Resources to Support my Learning	**3.81**
4. Evaluation of My Learning	**3.58**
5. Overall Evaluation	**4.02**

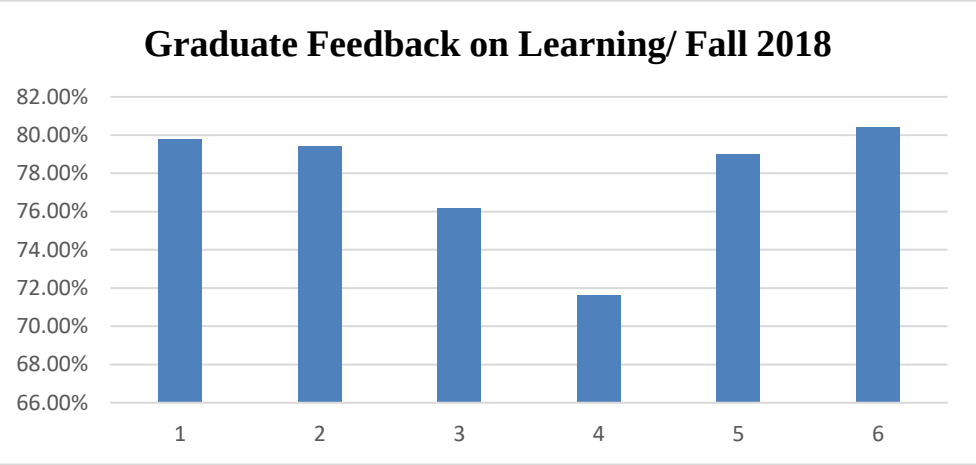


Figure (34) Program Survey Results on Evaluation of Learning

Spring 2019

Total Satisfaction Rate	**3.76/5**

1. Mission Awareness and Evaluation of Leadership	**3.725**
2. Help and Support of my Learning	**3.67**
3. Resources to Support my Learning	**3.77**
4. Evaluation of My Learning	**3.835**
5. Overall Evaluation	**3.8**

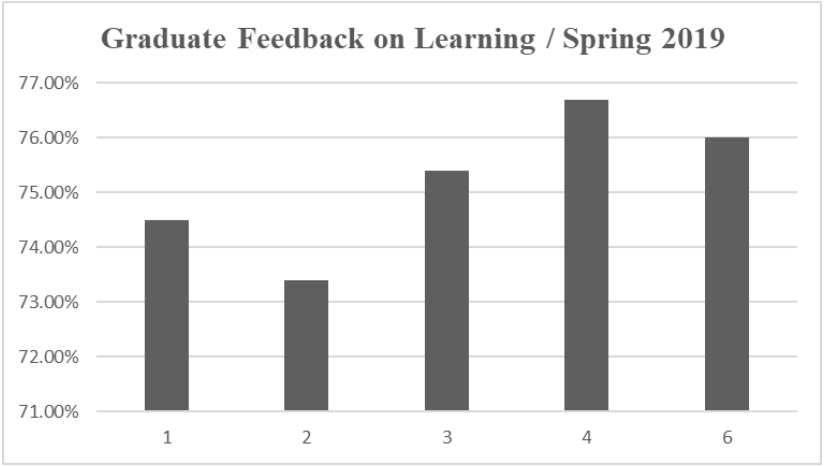
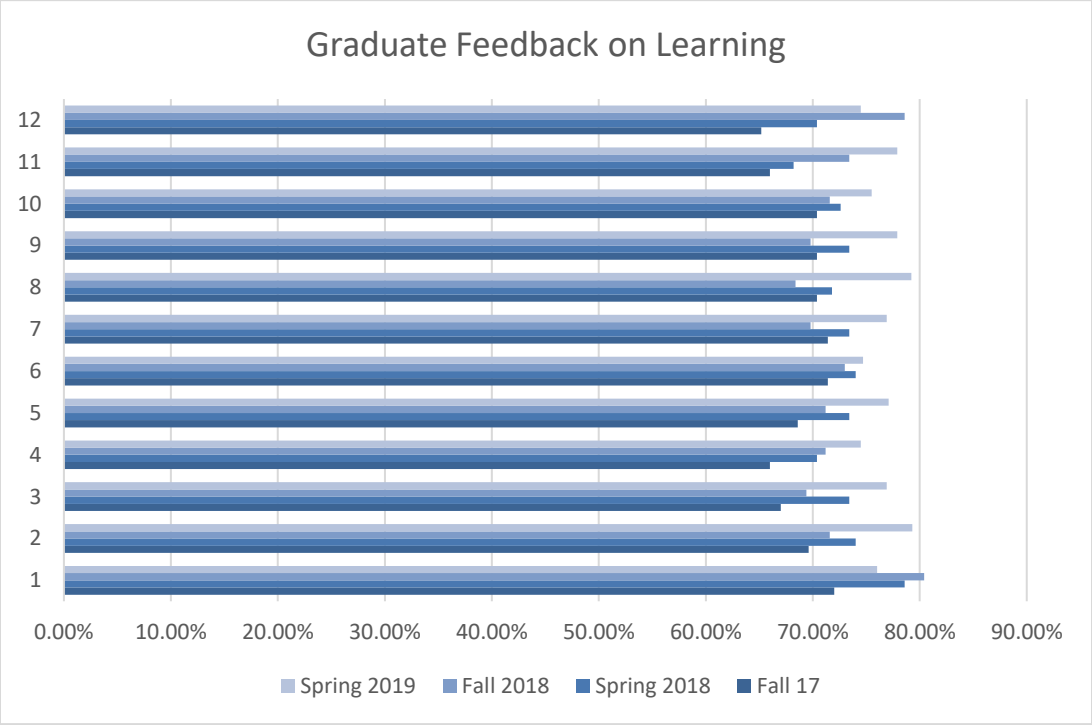


Figure (35) Program Survey Results on Evaluation of Learning

Graduate Feedback on Learning	FALL 2017		SPRING 2018		FALL 2018		SPRING 2019	
1. Overall I am satisfied with my life as a student at this institution.	3.6	72.00%	3.93	78.60%	4.02	80.40%	3.8	76%
2. The program has made me aware of the ethical values necessary for my future.	3.48	69.60%	3.7	74%	3.58	71.60%	3.965	79.30%
3. The program has helped me to develop leadership skills.	3.35	67%	3.67	73.40%	3.47	69%	3.845	76.90%
4. I have developed the knowledge and skills required for my chosen career.	3.3	66%	3.52	70.40%	3.56	71%	3.725	74.50%
5. The program has helped me to use technology to find information and report results.	3.43	68.60%	3.67	73.40%	3.56	71.20%	3.855	77.10%
6. The program has improved my skills in communication.	3.57	71.40%	3.7	74%	3.65	73.00%	3.735	74.70%
7. The program has improved my ability to work effectively in groups.	3.57	71.40%	3.67	73.40%	3.49	69.80%	3.845	76.90%
8. The program has developed my ability to investigate and solve new problems.	3.52	70.40%	3.59	71.80%	3.42	68.40%	3.96	79.20%
9. The program has helped me to develop sufficient interest to want to continue to keep up to date with new developments in my field of study.	3.52	70.40%	3.67	73.40%	3.49	69.80%	3.895	77.90%
10. What I have learned in this program is valuable for my future.	3.52	70.40%	3.63	72.60%	3.58	71.60%	3.775	75.50%
11. GEP courses were useful in preparing me for my field of specialty.	3.3	66%	3.41	68.20%	3.67	73%	3.895	77.90%
12. GEP courses have increased my general knowledge in several fields.	3.26	65.20%	3.52	70.40%	3.93	78.60%	3.725	74.50%



Overall, students are satisfied with their learning experience. They believe that the knowledge and the skills that they acquired through the program will be valuable for their careers and their future in general. The satisfaction rate is improving every semester since the ARCH department is committed to improving its quality of teaching and learning. Student Experience Surveys are also conducted in order to get feedback about the range of services and facilities related to education, resources and support. The survey also includes questions about the program in particular and the institution in general in addition to a section where students can add their comments and suggestions for improvement.

In addition to the internal feedback, external feedback from sources such as the PAC committee and the internship site supervisors tells much when it comes to the program's quality and the possible opportunities for improvement. Indeed, their recommendations are very important in order for the program to ensure that its graduates are properly qualified for their careers in the future.

PART TWO (II): SECTION 3 – EVALUATION OF PREPARATORY/PRE-PREPARATORY EDUCATION

Since the early days of the Architecture program, Effat University has been admitting high school graduates. The program also accepts some students transferring from other reputable universities in KSA and/ or the region. This is done with rigor by revising their transcripts and course specs that need to be accounted for and taking into consideration specific transfer regulation set by the Ministry and University.

PART TWO (II): SECTION 4 - PUBLIC INFORMATION

II.4.1 Statement on Substantially Equivalent Degrees

The following language found in the 2012 NAAB Conditions for Substantial Equivalency, Appendix 6, has been posted on the following Department of Architecture web page:
https://www.effatuniversity.edu.sa/English/Academics/Undergraduate/CoAD/Pages/ARCH.aspx

The term 'substantial equivalency' identifies a program as comparable in educational outcomes in all significant aspects, and indicates that it provides an educational experience meeting acceptable standards, even though such program may differ in format or method of delivery. The designation is valid for six years beginning of the year in which the final visit (Visit 3) will take place. In order to maintain the designation, the program must be visited again in the sixth year of the designation.

Effat University, College of Architecture & Design, Department of Architecture has applied for substantial equivalency designation from the National Accrediting Board for the following professional degree program or sequence:

Bachelor of Architecture.
The program has completed its initial application and Visit 2 of the process and is anticipating Visit 3.

II.4.2 Access to NAAB Conditions and Procedures

The links to the 2012 NAAB Conditions for Substantial Equivalency and the 2013 NAAB Procedures for Substantial Equivalency on the Department of Architecture internal.

II.4.3 Access to Career Development Information

The Career Development Office aims to help Effat University students become leaders of the future and exceptional career women by developing and enhancing their personal and professional skills. The CDO works with students to prepare them for future employment and/or graduate studies. Students gain access to opportunities that build on their academic experiences and career exploration. The programs offered provide students and future graduates' information on on-campus and off-campus activities and events that can assist them in life after university.
https://www.effatuniversity.edu.sa/English/Student-Life/Why-Choose-Effat/CDO/Pages/default.aspx

PART 3 (III): Progress since the Last Site Visit

Part Three – Progress since the Last Site Visit (visit two)

Decision from NAAB after visit II:
At the July 2018 meeting of its board of directors, the National Architectural Accrediting Board voted to accept the report from visit two regarding the Substantial Equivalency application for the Bachelor of Architecture degree offered at Effat University.

The NAAB wishes to congratulate the university on completing this step in the process for achieving the Substantial equivalency designation. The final step is a comprehensive visit by a four-person NAAB team. We anticipate that visit three will take place in fall 2020. The Architecture Program Report for this visit must be received by the NAAB 120 days before the visit.

Conditions Not Met/Not Yet Met

A.4 Technical Documentation
B.6 Comprehensive Design
C.4 Project Management
C.5 Practice Management
I.1.3 D. Architectural Education and the Profession

Responses to Conditions

a. 3.1 Responses to Conditions Not Met
b. 3.2 Responses to Causes of Concern
c. 3.3 Summary of Responses to Changes in the NAAB Conditions*

a. 3.1 Responses to Conditions Not Met

The following are the actions that were undertaken starting spring 2018 and during 2018-2019 to respond to the perspectives in question:

Perspective/ SPC	Decision from NAAB	Visit Two Team Assessment	Actions Undertaken 2018-2019
C1. Architecture Education and the Profession. That students enrolled in the substantially equivalent degree program are prepared to practice in a global economy; to recognize the positive impact of design on the environment; to understand the diverse and collaborative roles assumed by architects in practice; to understand the diverse and collaborative roles and responsibilities of related disciplines; to respect client expectations; to advocate for design-based	**[X] The program is not responsive to this perspective.**	The team finds the program is not adequately responsive to this perspective. The team found that students were less than adequately prepared to practice in a global economy, in relation to the collaborative roles of architects in practice and with related disciplines, the role of the architect as the design team leader, and successfully working with clients.	The following are the actions that were undertaken starting Spring 2018 and during 2018-2019 to respond to the perspectives in question: **ARCH 306** In this course, students were trained to adopt collaborative roles and practice exchanging ideas to reach best options/solutions. The collaboration in this course happened between the students inside the same class. The students were divided into groups to work on the project. In each group, the tasks were distributed among the group members in a way that each member was required to provide her own vision for developing her own area, then all the members of the group sat together to discuss and evaluate the different ideas for all areas to come up with the final best concept. A specific assignment was set to assess the collaboration aspect through the midterm jury. The students submitted and presented their tasks in the midterm jury. The project of the students was about designing vibrant neighborhood center. In order to create successful neighborhood it should have a vibrant and full of life center. Which is walkable, mixed- use, full of events, has beautiful open spaces and gathering places. Four proposed areas were available for students to work on. Each group selected one site. After finishing the analysis studies each girl created her own concept for development for example one of the girls chose her vision to be “re-introduce the excitement of outdoor spaces”, the second one “ improve the prosperity and quality of life for a unified community”, the third one was “ a vibrant healthy neighborhood” the fourth one was” Encourage pedestrian movement for a more sustainable city”, the fifth one was “Smart technological neighborhood”. After that the students sat together discussed all their vision, combined them to came up with the final one or the best one “ A healthy and inspiring community” they wanted to

solutions that respond to the multiple needs of diverse clients and populations, as well as the needs of communities; and to contribute to the growth and development of the profession.			transform the community into a comprehensive model for smart vibrant community that aims to fulfill a healthy physical and a psychological wellbeing with incorporating of technology and art. They designed the area to provide cafes, shops, libraries and vibrant open spaces with using smart techniques to control all the aspects of the built environment.
			ARCH 556 To prepare students for their role as design team leaders and project managers, this course was conducted in collaboration with a professional organization called Dar Al Riyadh Construction Management Services, which is based in Riyadh, in Spring 2019. The organization was very helpful in offering career orientation to the architecture students. The training highlighted the role of architects as project managers and gave an overview of the risks and challenges that confront architects in the construction industry. The training was extended for BIM by highlighting aspects of modeling data related to planning, monitoring and controlling project schedule and costs as an extended tool for projects' management. *(BIM 360 and CCT* Building information modeling tools and techniques Visit to Dr. Amr El Sersy -Consolidated Contractors Company (CCC) to visit the new international airport of Abu Dhabi in Fall 2019. The outcome was a demonstration of how to link all project data from 3D model as well as actual progress on site. Further training is to be held by the training center of ccc company during summer 2019, regarding allowing students and graduates to be trained on BIM application for project management. BIM 360 is the workshop related to auto desk organized by Dr. Mohamed Fekry in Spring 2019.
			ARCH 571 To train architects on working with professionals in different disciplines as clients, a professional expert from the medical care field was invited to be a part of the learning process of the course in Spring 2019 to fulfill the following objectives: - Supporting the course of ARCH 571 which was dedicated to the technical theme "Healing & Medical Care". - Motivating architecture students to engage with a professional in a critical field to ask questions and share ideas with him. - Providing students with the ability to collaborate with different disciplines in these early stages of their project to prepare them for having successful design projects. To fulfill the above objectives, the following actions were taken: • Organizing a public event titled "Meet the Professional" including: 1. Offering an introductory lecture about "Flexibility in Designing Health Care Facilities" 2. Having an open discussion between the lecturer and students for answering all their questions about the technical problems they are facing in their designs

			and possible solutions for handling them. 3. Holding a short workshop for conducting a design review for each student as a training assignment. • Participation of the professional in marking the students' assignments which was then added to students' final course grade. • Motivating students to keep their connection with the expert through emails or meetings to benefit from his valuable feedback to support the progress of their project.
A.4. Technical Documentation: *Ability* to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.	[X] Not Met	Evidence was found in ARCH 352 Building Structures and Materials, ARCH 455 Working Drawings. The team did not find evidence of coverage of outline specifications.	**ARCH 455** Outlining Specifications and Preparing Models • Two assignments have been added to the course ARCH 455 (i.e. Material Specifications Research 1 and 2) that clearly assess the way students write material specifications that has 3 Parts, in addition to writing the BOQ for part of the project. • In addition, a new assignment for preparing models (Model Assignment) was added to help the students in understanding the different layers of the building and identifying the assembly of materials, systems and components appropriate for a building design. Please refer to the course syllabus and course activities for more details.
B.6. Comprehensive Design: *Ability* to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales	[X] Not Met	Evidence was found of student work in ARCH 408 Architecture Design Studio 8 and in ARCH 572 Capstone Project that all elements of comprehensive design were engaged in student projects. However, the integration of accessibility, sustainability, life safety, environmental systems was inconsistent across student projects presented. Graphic representation across multiple scales is not evident.	**ARCH 408** 1. The Architecture Program faculty conducted benchmarking with other universities and accordingly the submission requirements of the Architecture Design Studio 8 have been developed and enhanced to include besides the ordinary deliverables of the design project other deliverables related to the integration of other aspects. New deliverables that have been requested include, but are not limited to, the following: • Environmental studies using computer software to inform the initial design decisions and responses. Studies are carried out by Revit, Weather Tool, Ecotect and Climate Consultant software. • Structure systems through structural zoning diagram and 3D/exploded isometric showing selected roofing, walling and flooring systems • Envelop systems through wall sections 1:20 • Passive system studies for showing how the project design responds to sustainability measures • Life safety plans based on the IBC requirements. • Electrical and mechanical space configuration through plans for the proposed spaces. 2. The size of the project was reduced compared to what was used in the previous years to enable the students to achieve the comprehensive approach requirements. Students of the Fall 2018 class designed a car showroom on a total built up area of 4000m2, and in Spring 2019, they designed a heritage research center on a total built up area of 6500 m2. 3. Several lectures were prepared and delivered in Fall 2018 and spring 19 to the students in their individual classes, in addition to four general technical lectures for the entire classes to support their previous knowledge of some skills needed to be integrated with their project design. The delivered lectures were as follows:

			Week-3, Dr. Mady Mohamed delivered a lecture on "Environmental Considerations in Architectural Design- Application of Sustainable Principles, and Environmental and Rating Systems." The lecture was followed by an assignment to test the students' investigative skills in research, pre-design studies and site analysis with emphasis on the environmental analysis and sustainability measures that inform the design process. Week-5, Dr. Marwa Abuhassan and Dr. Abeer Samy delivered a lecture on "Structure Considerations in Architectural Design- Technical Documentation, Ordering System, and Structure Systems." The lecture was followed by an assignment to test the ability of the students to develop **structural systems** that correspond to their design and form. Week-9, Dr. Tarek Abdelsalam and Dr. Ahmed Waseef delivered a lecture on "Envelop Systems and Material Considerations in Architectural Design with Emphasis on Passive Treatments." The lecture was followed by an assignment to test the ability of the students to incorporate and illustrate **envelop systems** and **passive treatments** through detailed wall sections. Week-12, Dr. Haitham Hussein delivered a lecture on "Designing Spaces for Mechanical and Electrical Systems, Life safety Package, and Accessibility." The lecture was followed by an assignment to test the ability of the students to determine the required spaces for building services in their project and to design and illustrate a proper egress system for **life safety**. 4. Unifying the submission requirements and assessment rubrics among all the sections in ARCH 408 to assure achieving consistent learning outcomes and quality of deliverables. 5. Offering different other assignments for sustainability, structural systems, and life safety to assure the fulfillment of the aspects mentioned above. 6. **Physical scale modeling techniques** have been integrated in the process of the design. 7. Organizing the final jury for Studio-8 to include external practitioners/professionals jurors. 8. Increasing the perquisites for the courses: ARCH 407, ARCH416 and ARCH 455, 8. Adding new references to the syllabus concentrating on the comprehensive design approach. (i.e. The architects' studio companion: Rule of thumb for preliminary design, by Joseph Lano, Published by John Wiley & Sons, Inc. 5th ed. ISBN 978-0-470-64191-0 (cloth); ISBN 978-1-118-09797-7 (ebk); and add specifically the related chapters and pages from the book to the studio. Please refer to the following for more details: 1. ARCH 408 – Fall 2018 & Spring 2019 course syllabi; 2. Assignments 4, 5, 6, and 7 04_Assignment-4_Structural Considerations, 05_Assignment-5_Skin and materials, 06_Assignment-6_Sustainability, 07_Assignment-7_Building Services, 3. The final requirements of the project submission - Fall 2018

			For the Graphic representation, all the students submitted their drawings in one scale to avoid multiples scales as written clearly in their final project requirements and submission assessment as well.
B.2. Accessibility	[X] Not Met		**ARCH 305** 1. Accessibility requirements for people with physical disabilities, mobility in particular, are addressed in the pre-design research of this course that covers Saudi Regulations for High Rise Buildings. Research reference: http://www.jeddah.gov.sa/Business/LocalPlanning/HighBuildings/index.php 2. Implementation of these requirements are done in Assignment 3 (floor plans) in the form of designing the fire stairs, fire exits, and respecting the safe distance to fire escape, etc. Handicap ramps, handicap bathrooms, and handicap parking areas are taken into account in the design as well. 3. A new assignment has been added (Assignment 4) that clearly highlights the accessibility and life safety measurements integrated in the project. Assignment reference: Saudi Building Code, Section 29 (soft copy is available on Blackboard) Please refer to the course syllabus and course activities for more details.
			ARCH 306 The following was undertaken in the course to ensure that accessibility details are addressed in the project: 1. Giving the student a lecture about the concept of accessibility. 2. Adding the "Comprehensive Guidelines for Accessibility in Saudi Arabia" on Blackboard for the architecture students as a main reference. 3. Adding the accessibility details as a separate requirement in the project brief. 4. Creating a new assignment that focuses only on accessibility as one of the main requirements of the project. 5. Assigning part of the final project evaluation to accessibility details and updating the rubrics accordingly. Please refer to the course syllabus for more details.
C.4. Project Management: *Understanding* of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods.	[X] Not Met	Evidence was found in ARCH 556 Project Management of understanding methods for recommending project delivery methods. Evidence was not found of understanding methods for competing for commissions, selecting consultants, and assembling	**ARCH 556** To ensure that the project management component is strengthened, the ARCH 556 course content is verified by the Project Management Institute PMI Institute (PMI®) since June 2018. PMI Contact Hours Certificate of completion is awarded to students who complete the Project Management course ARCH 556 offered under the Architecture Program. The certificate will be awarded to students with 45 Contact Hours issued by Effat University Executive Education and Community Service Institute (EECSI) as it is verified and approved by the PMI Institute. Completing the academic course at the Architecture Program helps the architecture students in building their project management skills and prepares them for the advanced level of Certified Associate in Project Management (CAPM)® examination. This is an asset that will distinguish enrolled architecture students in the job market and enhance their credibility and effectiveness working on, or with, project teams.

		teams.	Regarding understanding of the methods for competing for commissions, lectures and discussion topics related to procurement delivery systems and processes for bidding (Lectures 5 and 6) were added to the course. Assessment for students was conducted through bidding process investigation and analysis of calls of bidding for actual projects, in terms of competitors' criteria selection, timeline for the process and requirements for proposals and quotations.
			Regarding selecting consultants and assembling teams, lectures and discussion topics related to the organization and building of teams, and consultancy services in lectures 3 and 4. This was further practiced through analysis of case-based studies of project teams of on-going projects and demonstrating the role of participants in teams. The assessment was undertaken in Quiz 01, Midterm exam and Final exam Q2 by evaluating acquiring specialized consultants according to project requirements by presenting organization breakdown structure and team organization in proposed delivery systems.
			Concerning recommending project delivery methods, … -Addressing Criteria for selecting Procurement Delivery system relevant to Project requirements and objectives. Students Assessment (Midterm_question related to selecting the most suitable procurement delivery system by assessing project objectives, client requirements and contracting methods) -Research and article discussion regarding the most critical processes that has to be followed by consultants and contractors participating in competitions related to large scale public projects. Students Assessment (Article Analysis) The article represents the client requirements while assessing commissioning in large scale projects in Saudi Arabia.
C.5. Practice Management: *Understanding* of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.	[X] Not Met	Evidence was found in ARCH 556 Project Management of understanding of business planning, time management, and risk management. Evidence was not found of understanding of principles including financial management, negotiation, mediation, arbitration, and recognizing trends	Understanding of the basic principles of architectural practice management such as ARCH 556 and ARCH 557
			Concerning financial management and business planning, lecture 7 in ARCH 556 is developed to include cost estimation and cost control, adding materials for earned value systems as a tool to monitor project cost performance against scheduled activities in baseline project plan. The faculty has the power to discuss and do research on value engineering processes in large scale projects, as well as using references for the processes of Cost estimation and monitoring such as the Saudi price index for materials. For student assessment, final exam questions 3 and quiz 2 are two evidences.
			Concerning time management, lecture 8 of ARCH 556 guide students in the topics related to scheduling techniques and time management for planning projects' activities in addition to resources allocation such as the critical path method systems to crash Student assessment includes term project, final exam question 4 and quiz 2.

		that affect practice.	Concerning risk management, lecture 9 of the course ARCH 556 is dedicated for practicing this aspect. This is done through article analysis and discussion of cases of risk mitigation plans. Students' assessment is through the representation of risk register relevant to case based analysis in an open book exercise.
			Regarding mediation and arbitration, lecture 6 of ARCH 556 covers contract formatting and examples for FIDIC contracts implementations as well as requirements for contracting in Saudi Arabia. The course encourages discussion of articles related to contracting and disputes in the context of KSA international projects. The assessment to the students is done through final exam question 2, MCQs in question 1, as well as class participation in discussions and Quiz 2.
			Concerning training architecture students on recognizing trends that affect their practice, this is done through the change approved in the ARCH 557 course syllabus starting from Fall 2018 by adding the topic, Architecture Business Plan, has contributed in covering this part. The students' are assessed through the final presentation on their architecture business plan.

b. 3.2 Responses to Causes of Concern

A. Enrollment Management

To promote higher education in the Kingdom, the Saudi Ministry of Education previously granted a scholarship to every Saudi high school graduate. That program spurred a large enrollment increase in the architecture program, resulting in a graduating class of 70 students in 2016 and 61 students in 2017, when the previous graduating classes averaged 32 students. The amount of scholarship funding has been dramatically reduced, and the department expects a resulting enrollment decline starting in fall 2018. The team is concerned about how the enrollment changes expected will impact the program curriculum and faculty. Effat University plans include addressing this by increasing faculty research time and reducing teaching loads.

In the academic year 2015-2016, when the Saudi scholarship program was limited to only continuing students, the Architecture Program witnessed a decrease in the number of entrants. However, the total number of students continues to be in the good range of similar programs all over the world, with total number of 496 in Spring 2019. The program is working on achieving its capacity as planned. An assessment plan and a transitional strategy were discussed and implemented. As a result, an aggressive student recruitment plan is followed and a major university scholarship plan was set to action. The Architecture Program has received a great support from the ECoAD and EU during the academic years 2017-2018 and 2018-2019 to continue providing its newly admitted students with 50% scholarship. This plan is also extended to the academic year 2019-2020 with potential to have 10% of the new applicant on full scholarship and 60% of students on 50% scholarship. Accordingly, there is a recognized increase in the application for Fall 2019. However, the expected number of student body of 385 in the academic year 2019-2020 forced the university to reduce the number of teaching staff in the ARCH program by 35%. This is mainly affected the part-time and visiting faculty, but did not affect the distribution of specialty areas required to cover different courses in the ARCH curriculum.

B. Professional Practice and Project Management Although the team applauds the program for creating two courses, Professional Practice and Project Management, where many programs only offer one, the learning outcomes in these courses do not address the NAAB Student Performance Criteria in Realm C as directly as needed to satisfy the standard, or in some cases not at all. In particular, the architect's role as the team leader in design and recognizing trends that affect practice is absent.

A direct Assessment is presented in ARCH 556 project management course in the Assignment one to highlight the owner prospects in the initiation phase for particular projects proposed by the students. The groups formed are asked to provide for project charter, project statement, scope definition and investigate trends supporting the future progression of the project. The outcome is a full study for team building, tasks assignment, define project requirements and phases as well

as trends and risks that might affect the project proposed by the students.

Students are encouraged to explore and understand actual trends in the field of Architecture design and Construction by visiting actual clients and interviewing main leaders in these projects whether completed or ongoing , in different phases of design progress or execution or operation.

The demonstration involved the meeting with BACS Consortium representatives lead by Architect from the ADA, Al Riyadh Development Authority, in the project of Metro Riyadh. The Architect under the context of Design and Build delivery method faces challenges in meeting client requirements and updating details relevant to progress of activities from material selection and system solutions provided in consistent meetings and reporting methods.

Another Example is the integrated design process and the advancement of technology and management trends to support the architect in leading project phases from design modeling to coordination with other disciplines as well as satisfying the client needs and requirements in meeting project objectives.

The department of Architecture formulated a memorandum of agreement with CCT, International, Inc. one of leading consultants in the field of Building Information Modelling, and provide training to exploit the benefits of implementing BIM as a model for managing projects and supporting architects in achieving targets on the project plan.

Extended training for BIM to highlight aspects of modeling data related to planning, monitoring and controlling project schedule and costs as an extended tool for projects management. *(BIM 360 and CCT)*

BIM as a trend in architecture and construction field is demonstrated in the section of activities by attending one-day workshop presented by Aramco, Owner Representative involved in the project initiation, Design and construction phase; Architect Fawzia in ITHRA (World Culture Center Project, Snnohetta in Dammam.

In Collaboration with Dar Al Riyadh Construction Management Services, Riyadh, March 2019. The Department organized a one day workshop related to career orientation by practitioners, presented by Mohamed Al Agroudy, Ph.D., PMP, with the topic: “How to promote your career”; highlighting the role of architect as a project manager and overviewing the risks and challenges confronted in the construction industry.

An Extended visit guided by Architect Mohamed Al Rafei, owner of ADEEM ARCHITECTS Presented a topic of: ”Appropriate Building Construction Management”, Visit for Al-Qurainah House in Riyadh Sustainable, construction visits. The project is winner of Hassan Fathi Award 2017 and is Agha Khan nominated project 2019. Students Experience the site coordination between all team members from buiders to architects and complying with client requirements as a privately owned project. The project is uniquely representing the adaptation of compressed earth techniques in a context that requires the extensive communication and supervision by the client himself.

PMI Institute (PMI®) preapproved courses

The course content is verified by the Project Management Institute, since June 2018. PMI Contact Hours Certificate of completion is awarded to students who complete Project Management course ARCH 556 offered in the under the Architecture program. The certificate will award students with 45 Contact Hours issued by Effat University ECSI as it is verified and approved by the PMI Institute.

Benefits:

Completing the academic course at your college will help the students in building their project management skills and prepares them for the advanced level of Certified Associate in Project Management (CAPM)® examination. This is an asset that will distinguish enrolled students in the job market and enhance their credibility and effectiveness working on, or with, project teams.

An extensive part of the course is intended to highlight the different knowledge area to manage successful projects including stakeholder management, communication, risks and procurement management.

Concerning the **change in NAAB conditions**,

There was no change in the conditions since last time we have submitted, refer to the version used (2012 conditions-attached).

Conditions Met with Distinction

A.1. Communication Skills B.3. Sustainability I.1.4 Long-Range Planning I.1.5 Self-Assessment Procedure

PART FOUR (IV): SUPPLEMENTAL INFORMATION

PART FOUR (IV): Section 1 - Course Descriptions

The following is the detailed description of the courses offered to students of ARCH department

ARCH 101	**Architecture Design Studio-1**	**5 credits**
Prerequisites:	• None	
Course Description:	This course introduces students to architecture design elements and principles. The applications of this studio cover the understanding of space and form through model making, orthographical projection, and form transformation. Students will learn the fundamentals of technical drawings to produce basic Architecture project. Creativity, conceptual thinking, and problem solving are encouraged through different exercises to enhance students' ability to create innovative designs.	
Course Goals & Objectives:	• Learn, understand and apply fundamental principles of design. • Develop critical thinking and analytic techniques. • Achieve competency in visual communication skills (drawing, sketching, model making) to develop design ideas and communicate them convincingly graphically and verbally. • Understand the iterative process of the architectural design; that is ideas are repeatedly studied, transformed, edited and rediscovered over a period of time.	
Course intended Learning Outcomes:	*Knowledge* • Define the main elements of architecture *ARCH-K1/CLO1. (Regular Quizzes, Midterm Exam, Final Exam)* • Identify basic representational skills as documentation tools to record ideas visually *ARCH-K2/CLO2. (Regular Quizzes, Midterm Exam, Final Exam)* *Cognitive skills* • Examine and analyze patterns and apply the learnt design principles and techniques for problem solving in architecture design *ARCH-C1/CLO4. (A.10) (Midterm Exam, Final Exam)* • Question, discuss, and test several options during the development and refinement of design ideas to formulate well-reasoned conclusions during the design process *ARCH-C2/CLO5. (B.8) (Midterm Exam, Final Exam)* • Develop projection drawings (plan, elevation and section). *Interpersonal skills* • Demonstrate the ability and responsibility to gather, organize and evaluate relevant information during the design process *ARCH-IR1/CLO6. (Assignments)* • illustrate the ability to work with others to successfully achieve the design requirements *Communication, IT, and Numerical skills* • Communicate effectively in oral, written and illustrative forms, including the development of appropriate basic architectural drawings *ARCH-CT1/CLO7. (Midterm Exam, Final Exam, Assignments)* • Apply mathematics effectively for a precise numerical representation of the designs. *Psychomotor skills* • N/A	

Student Performance Criterion addressed:	• Demonstrate mental physical coordination in producing architecture sketches and models. • Construct model using any material • Present their drawings using different manual rendering techniques
Textbooks/Learning Resources:	*Prescribed Textbooks:* • Architecture: Form, Space and order, by Francis D.K Ching, 3rd edition (Hoboken: John Wiley & Sons, 2007) • Design Drawing, by Francis D.K Ching((Hoboken: John Wiley&Sons, 1997) • Experiencing Architecture, by Steen Eiler Rasmussen, 2nd edition (Cambridge: The MIT Press, 1964) *References from Effat Library:* • All architectural books and design magazines are required depending on the themes of the assignments and projects. *References from Effat Digital Library:* • www.archnet.org • www.greatbuildings.com *Recommended Texts:* • Basic Design principles/ Introduction to Architecture • Ching, Francis D.k. Architecture: Form, Space and Order (3rd edition). John Wiley & Sons • Martinez, Benjamin and Jacqueline Block. Visual Forces, an introduction to design. Prentice Hall, 1988 (2nd edition, 1995) • Moore, Charles and Gerald Allen. Dimensions: Space, shape and scale in Architecture. • Architectural Record Books, 1976. • Von Meiss, Pierre. Elements of Architecture. Van Nostrand Reinhold, 1989. • Architectural Drawing: Visualization, Analysis and Representation • Ching, Frank. Architectural Graphics. Van Nostrand Reinhold, 1996 (third edition). • Ching, Francis D.K Design Drawing. Van Nostrand Reinhold, 1998. • Crowe, Norman, and Paul Laseau. Visual Notes for Architects and Designers. Van Nostrand Reinhold, 1984. • Ramsay/Sleeper. Architectural Graphic Standards. Student Edition. John Wiley & Sons, 1989. *Recommended Articles:* • Basics: Architectural Design; Designing Architecture; Language of Space and Form; Diagramming the Big Idea; and Architecture-Thomas Leslie-Published online: 14 Mar 2014, https://doi.org/10.1080/10464883.2014.864918
Topical Outline:	• Form & Space, From 2D to 3D • Drafting Application “from 2d to 3d” • Model Making • Lecture: Orthographic projection • Introduction to various presentation medias (pencils + ink) • An Architectural Plan: walls, windows and doors details • Furniture layout/circulation • An Architectural Section and Elevation • Design concept development • Review study model • Idea development

Offered:	• Fall
Faculty assigned:	• Dr. Marwa El-Gendy

ARCH 102	**Architecture Design Studio -2**	**5 credits**
Prerequisites:	• ARCH 101	
Course Description:	This course aims to build design-thinking skills. It introduces the students to basic design elements and principals such as symmetry, forms organization, balance, and circulation through actual projects. The projects include the study of the various design relationships in two and three dimensions. This course stresses the use of model making in understanding abstract ideas and interprets information to produce successful design solutions that provide accessibility to different facilities. Students present their architectural drawings in manual based rendering methods.	
Course Goals & Objectives:	• Acquire necessary skills needed to produce basic level architectural design. • Be familiar with environmental issues, levels, and site specifications in architecture drawings. • Be familiar with all basic horizontal and vertical circulations needs for 2-3 story buildings. • Be familiar with the local environment and its characteristics, such as: materials, landscape, etc.	
Course intended Learning Outcomes:	*Knowledge* • Define and identify terminologies common to the field of architecture. *ARCH-K1/CLO1. (Assignment 1+ Midterm Exam+ Final Exam)* • Describe the basic Design principles and theories AutoCAD program. *ARCH-K2/CLO2, (A.6) (Assignments 4+ Final Project)* *Cognitive skills* • Analyze abstract ideas of architecture elements, consider diverse points of view and test alternative outcomes against relevant criteria and standards. *ARCH-C1/CLO3, (A.2) (Assignments 3+ Final Exam)* • Evaluate the appropriate selection of materials, furniture and based on their inherent characteristics. *ARCH-C2/CLO4, (A.7) (Assignments 5+ Final Exam)* *Interpersonal skills* • Develop professional attitude and teamwork spirit. *ARCH-IR1/CLO5. (Final Exam).* • Adhere to professional ethics practices common in designing and presenting a project. *ARCH-IR2/CLO6 . (Assignments 2)* *Communication, IT, and Numerical skills* • Express the ability to use appropriate representational media, such as traditional graphic and digital technology skills *ARCH-CT1/CLO7,(A.1) (Assignments 6)* *Psychomotor skills* • Demonstrate mental physical coordination in producing architecture sketches. *ARCH-P1/CLO8. (Exercise 1- Quiz 1)*	

Student Performance Criterion addressed:	A.1. Communication Skills: Ability to read, write, speak and listen effectively. A. 2. Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards. A. 6. Fundamental Design Skills: Ability to effectively use basic architectural and environmental principles in design. A. 7. Use of Precedents: Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.
Textbooks/Learning Resources:	*Prescribed Textbooks:* • Ching, F.,D.,K., Architecture: Form, Space,&order - John Wiley & Sons; 3rd Revised edition,ISBN-10: 0471752169. *References from Effat Library:* • Architects' data by Neufert, Ernst; Kister, Johannes; Neufert, Peter2012, 4th ed. Book: TH151 .N513 2012. *References from Effat Digital Library:* • 101 Things I Learned in Architecture School by Frederick, Matthew EBOOK ISBN 9780262273138 • Architecture: form, space and order Author: Ching, Francis D. K EBOOK ISBN 978111800483 *Recommended Texts:* • Hellman, L., Architecture for Beginners, (1988),Writers and Readers, ISBN-10: 0863160417. • Guptill, A.L., Meyer, S., E., Rendering in Pen and Ink, (1997), Watson-Guptill Publications Inc.,U.S. ISBN-10: 0823045293. • Farrelly, L.,The Fundamentals of Architecture, (2007),AVA Publishing, ISBN-10: 2940373485. *Recommended Articles:* • Energy efficiency and energy savings in Japanese residential building, by Lopes, Luis ; Hokoi, Shuichi ;Miura, Hisashi .Shuhei, Kondo-2005 – ISSN :0378-7788 . • Analysis of Influencing Factors about Residential Building – 2013-by Guo Hui Jin ; Dong Sheng Yu- ISSN:.1660-9336 .
Topical Outline:	• Introduction and research of selected example. • Orthographic drawings and Functional Relations • Stair plan ,section and elevation. • Hand out of term project and site analysis. • Conceptual Design Circulation and relation between residential spaces. • Work Development/plans . • Work Development/sections. • Work Development/elevations. • Master site plan and landscape. • Final Jury submission and presentation.
Offered:	• Spring.
Faculty assigned:	• Arch. Weam Abdulkarim Abdelgawad.

ARCH 120	**Freehand Drawing**	**3 credits**
Prerequisites:	• None	
Course Description:	This course is an introduction to freehand drawing principles and graphic representation of objects, masses, and voids. The course stresses the enhancement of students' ability to use appropriate graphic presentation media. This includes the study and use of visual communication effects such as color, light, texture, value, and space, along with basics of perspective sketching and orthogonal drawing.	
Course Goals & Objectives:	• Understand basic visual communication skills such as basic design elements, constructing two-dimensional shapes, three-dimensional volumes, and manual rendering techniques. • Confidently perceive considerations and examinations of natural elements. • Enhance the understanding of the basic differences between a painting and a sketch. • Further study the various elements of design as line, color, principles of aesthetic proportion and unity.	
Course intended Learning Outcomes:	***Knowledge*** • Define the terminologies common to the field of architecture. ***ARCH-K1/CLO1 (Assignment 1 & Midterm exam)*** ***Cognitive skills*** • Apply fundamental principles and techniques of drawings and coloring in architecture, while generating sketches and drawing perspective. ***ARCH-C2/CLO2 (A.3) (Assignment 4 , Final Project & Final Exam)*** ***Interpersonal skills*** • Raise the student ability and responsibility to generate individual sketches and drawings, formulating a whole set of architecture products. ***ARCH-IR1/CLO3 (Assignment 6)*** • Develop the ability to work with others to successfully achieve the requirements. ***ARCH-IR2/CLO4 (Assignment 3)*** • Question, discuss, communicate and interact in class. Express, defend and judge to present skills. ***ARCH-IR3/CLO5 (Final Project)*** ***Communication , IT , and Numeral skills*** • N.A. ***Psychomotor skills*** • Demonstrate mental physical coordination in producing architecture sketches. ***ARCH-P1/CLO7 (Assignment 2)***	
Student Performance Criterion addressed:	• **A. 3. Visual Communication Skills**: Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.	
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Richards , James, Freehand Drawing and Discovery: Urban Sketching and Concept Drawing for Designers,(2013) , Wiley; 1st Edition. ISBN-10: 1118232100 • Welton, J. Michael, Drawing from practice: architects and the meaning of freehand, New York,(2015), Routledge. ISBN-10: 0415725097 • D'Amelio , Joseph, Perspective Drawing Handbook , (2004), Dover Art Instruction. ISBN-10: 0486432084 ***References from Effat Library:***	

	• Laseau, Paul, Watercolor Sketching: An Introduction, (2012), W. W. Norton & Company. ISBN-10: 0393733483 • Montague , John ,Basic Perspective Drawing: A Visual Approach ,(2013), Wiley; 6th Edition. ISBN-10: 1118134141 • Baskinger, Mark , Drawing ideas : a hand-drawn approach for better design , (2013), New York : Watson-Guptill . ISBN-10: 0385344627 ***References from Effat Digital Library:*** • Welton, J. Michael, Drawing from practice: architects and the meaning of freehand, New York,(2015), Routledge. ISBN-10: 0415725097 • D'Amelio , Joseph, Perspective Drawing Handbook , (2004), Dover Art Instruction. ISBN-10: 0486432084 ***Recommended Texts:*** • Ridyard , Simone, Archisketcher: Drawing Buildings, Cities and Landscapes ,(2015), North Light Books. ISBN-10: 1440340919 • Scheinberger, Felix, Urban Watercolor Sketching: A Guide to Drawing, Painting, and Storytelling in Color , (2014), Watson-Guptill . ISBN-10: 0770435211 • Laseau, Paul, Watercolor Sketching: An Introduction, (2012), W. W. Norton & Company. ISBN-10: 0393733483 • Montague , John ,Basic Perspective Drawing: A Visual Approach ,(2013), Wiley; 6th Edition. ISBN-10: 1118134141 • Baskinger, Mark , Drawing ideas : a hand-drawn approach for better design , (2013), New York : Watson-Guptill . ISBN-10: 0385344627 • Koller, E. L, Light, Shade and Shadow ,(2008), Dover Publications. ISBN-10: 0486468852 • Norling , Ernest R. ,Perspective Made Easy , (1999), Dover Art Instruction . ISBN-10: 0486404730 ***Recommended Articles :*** • Sketching 101: use a pencil and paper at the eyepiece to hone your observing skills by Chaple, Glenn. (ISSN: 0091-6358). • The Art of Sketching falseAnonymous. Southwest Art; Broomfield Vol. 40, Iss. 7, (Dec 2010): 72-77. (ISSN: 0192-4214).
Topical Outline:	• Mark making & shading techniques • Shade, shadow & Light • Application on Materials (Metal , Glass & Wood) • Still life Drawing • Perspective • Color application (Pencil color , Marker & water color)
Offered:	• Fall
Faculty assigned:	• Mrs Nawar Sakijha

ARCH 150	**Computer-Aided Architecture Design -1**	**3 credits**
Prerequisites:	• ARCH 101	
Course Description:	This course builds students' skills of computer aided architectural design systems. The course benefits from the basic principles of architectural drawing taught in the ARCH 101. Students will enhance their computation skills to produce technically clear 2D drawings, and focus on using computer presentations and rendering techniques.	
Course Goals & Objectives:	• A solid foundation for creating, editing, dimensioning, and plotting drawings. • Ability to create 2-dimensional representations of 3-dimensional objects as plan view, elevations and sections • Ability to assemble these drawings in industry-standard plan form and produce plotted hardcopies ready for distribution. • A general introduction into architectural drafting.	
Course intended Learning Outcomes:	***Knowledge*** • Define drawing and editing commands of AutoCAD to produce the 2D architecture drawings. ***ARCH-K1/CLO1. (Assignment 2)*** ***Cognitive skills*** • Demonstrate ability to prepare clear technical Architecture drawings using AutoCAD program. ***ARCH-C4/CLO2, A.3. (Assignments 4+ Final Project)*** ***Interpersonal skills*** • Demonstrate Effective time management and respect for deadlines and submission criteria. ***ARCH-IR1/CLO3. (Final Exam- Midterm Exam).*** ***Communication, IT, and Numerical skills*** • Calculate areas and show any numerical data from the architecture drawings. ***ARCH-CT2/CLO4, (Assignments 3)*** ***Psychomotor skills*** • Demonstrate mental physical coordination in producing architecture drawings. ***ARCH-P1/CLO5 (Assignments 1- Quizzes)***	
Student Performance Criterion addressed:	• **A.3. Visual Communication Skills:** Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.	
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • AutoCAD 2017 for Interior Design and Space Planning - by Beverly M. Kirkpatrick (Author), James M. Kirkpatrick , ISBN-9780132987684 ***References from Effat Library:*** • AutoCAD 2017 for Interior Design and Space Planning - by Beverly M. Kirkpatrick (Author), James M. Kirkpatrick , ISBN-9780132987684. ***References from Effat Digital Library:*** • AutoCAD and AutoCAD LT Essentials.by Onstott Publisher: John Wiley & Sons ISBN 1118575091, 9781118575093 ***Recommended Texts:*** • AutoCAD 2017 and AutoCAD LT 2017 Essentials 1st Edition- by Scott Onstott (Author)-ISBN-10:1119243335. • Mastering AutoCAD 2017 and AutoCAD LT 2017: Autodesk Official Press 1st Edition by George Omura (Author), Brian C. Benton (Author) ISBN-10: 1118862082.	

	Recommended Articles: • AutoCAD Conventional Intersection of Geometric Solids in AutoCAD-06/2015-BY :Gheorghe Belea -ISSN : 2344 1843-3766:4681 • Research and Markets; Mastering AutoCAD 2012 and AutoCAD LT 2012-BY: NewsRx – ISSN:1944-1568
Topical Outline:	• Introduction to AutoCAD User Interface • Basic Drawing & Editing Commands • Creating a Simple Drawing • Organizing Your Drawing with Layers • Advanced Editing Commends • Getting Information from Your Drawing Design • Adding Dimensions and text • Making and Inserting Block • Plot Settings and Plot to Scale • Advanced 2D Drawings
Offered:	• Spring
Faculty assigned:	• Arch. Weam Abdulkarim Abdelgawad.

ARCH 203	**Architecture Design Studio-3**	**5 credits**
Prerequisites:	• ARCH 102	
Course Description:	This course presents studio problems to develop students' awareness, knowledge, and basic skills needed in the synthesis of building form. Students will be familiarized with the principles of creating innovative interior spaces and exterior site design, according to user needs and safety requirements, and understanding their relationships to horizontal and vertical circulations. The student will be asked to apply the learned skills of concept development, design graphic techniques and presentations to demonstrate their critical thinking and communication skills in writing and speaking.	
Course Goals & Objectives:	• To assist with defining a topic so that their understanding of the relationship between people and buildings is enhanced. • To develop a concept into a design project taking into consideration the different components involved in evolution of the deign process • To understand and manage the functional aspects related to vertical and horizontal circulation. • To be familiar with issues related to the context, such as physical surrounding, topography, and climate. This will affect the quality of spaces and make it more compatible. • Further develop the student's ability to transfer ideas into building applications.	
Course intended Learning Outcomes:	***Knowledge*** • Define and identify modular design and space organization related to the human anthropometry. ***ARCH-K1/CLO1 (Pre-Design Research- Midterm Exam)*** • Recognize the design of spaces and buildings as a creative combination of multiple aspects like site analysis, concept, functions, and many other architectural features. ***ARCH-K2/CLO2, (B.1) (Pre- Design research)*** ***Cognitive skills*** • Appraise the ability to apply principles and techniques of form generation in designing a set of modular spaces. ***ARCH-C1/CLO3, (A.6) (Assignments (1+2+3+4+5))*** • Interpret ordering systems to inform two- and three-dimensional design. ***ARCH-C2/CLO4 (Midterm Exam)***	

	Interpersonal skills • Demonstrate personal and professional responsibility to apply the learned skills of concept development, design graphic techniques and presentations to demonstrate their critical thinking. ***ARCH-IR2/CLO5. (B.1) (Final Project)*** ***Communication, IT, and Numerical skills*** • Visually and orally present their ideas. ***ARCH-CT1/CLO6, (A.1) (Final Exam))*** ***Psychomotor skills*** • Demonstrate mental physical coordination in producing architecture design. ***ARCH-P1/CLO7 (Pre- Final assessment)***
Student Performance Criterion addressed:	• **A.1. Communication Skills:** Ability to read, write, speak and listen effectively. • **A.6. Fundamental Design Skills:** Ability to effectively use basic architectural and environmental principles in design. • **B.1. Pre-Design:** Ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Farrelly, L.,The Fundamentals of Architecture, (2017), AVA Publishing, ISBN-10: 2940373485. ***References from Effat Library:*** • Awad, J., Top International Architects: Design Concepts in Architecture, (2014), Universal Publisher & Distributor; 1st edition. ISBN 9789953591049 (v. 3). ***References from Effat Digital Library:*** • Le Corbusier, The Modulor: A Harmonious Measure to the Human Scale, (2004). Basel & Boston: Birkhäuser. 1st edition. ISBN 3764361883. ***Recommended Texts:*** • Karlen, M., Space Planning Basics, (2009). John Wiley & Sons, Inc. 3rd edition. ISBN 978-0470231784 ***Recommended Articles:*** • Bortolot, L., (2014). Designing a Better Office Space. website: https://www.entrepreneur.com/article/235375 • Architizer Editors. (2013). The Future Of The Office Is Fun: Architecture + Workspace. website: https://architizer.com/blog/architecture-plus-workspaces/
Topical Outline:	• Modular Massing and Composition • Conceptual Analysis • Elements of Space • Human Behaviour • Light and Experience • Integration between Modules and Humans in Design • Drawing and Representation
Offered:	• Fall
Faculty assigned:	• Dr. Ahmad Wassif, Mrs. Deema El Khateeb,

ARCH 204	**Architecture Design Studio-4**	**5 credits**
Prerequisites:	• ARCH 203	
Course Description:	This course is concerned with more in-depth understanding of the diverse needs, values, behavioral norms, and cultures; and the effect of this diversity on the development of architectural design for small-scale buildings. Students will be able to determine the artistic, conceptual, creative, and spatial aspects of architecture in relation to its local context. The students will be asked to present their work and explain their concepts in three dimensional and printed presentations.	
Course Goals & Objectives:	• To develop their own design ideas and communicate them convincingly graphically and verbally. • To familiarize themselves with basic architectural standards. • To create confidently orthographic and 3D presentations (axonometric, perspective and models) in variety of scales.	
Course intended Learning Outcomes:	***Knowledge*** • Define sensation and perception in architecture***. ARCH-K1/CLO1 (Assignments-Exams- Oral presentation: Research)*** • Formulate the program requirements for an experiential architectural project as an area of human activity. ***ARCH-K2/CLO2 (C.1) (Research.)*** ***Cognitive skills*** • Analyse the architectural space in relation to the human behaviour. ***ARCH-C1/CLO3 (A.2) (Assignment1(Concept))*** • Generate innovative design ideas to deliver a unique experience. ARCH-***C2/CLO4 (Assessment method: Assignment 2(Plans)*** ***Interpersonal skills*** • Represent their work and explain their ideas. ***ARCH-IR1/CLO5 (Assessment method: Final Jury.*** • Display a sense of leadership and collaboration in the design process. ***ARCH-IR3/CLO6 (Midterm Exam).*** • ***Communication, IT, and Numerical skills*** • Express forms and spaces through diagrams, sketches and models***. ARCH-CT1/CLO7 (Assignment 3&4).*** ***Psychomotor skills*** • Demonstrate mental physical coordination in producing architectural sketches***. ARCH-CT2/CLO8 (Final Exam).***	
Student Performance Criterion addressed:	• **A.2. Design Thinking Skills**: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards. • **C.1. Collaboration:** Ability to work in collaboration with others and in multi-disciplinary teams to successfully complete design projects.	

Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Turner, J., Public Places: lighting solutions for exhibitions, museums , (2016) ***References from Effat Library:*** • Taylor and francis, Analysing Architecture by Simon Unwin (2009), ISBN: 041548927X, 9780415489270, 9780415489287, 0415489288 ***References from Effat Digital Library:*** • Farrelly, L., the Fundamentals of Architecture, (2012), AVA Publishing 2nd Edition ISBN- 10:2940411751. ***Recommended Texts:*** • Khidr, K., Jeddah: Museum under the sun, (2000), ISBN 9960523896. • Ching, F., Form, space and Order, (2014), Willy, 4th edition, ISBN: 978-1-118-74508-3. • Lorente, J., The Museums of Contemporary Art: Notion and Development, (2011), Routledge, ISBN-10: 1409405869. ***Recommended Articles:*** • Bitgood, S., (1994), Designing Effective Exhibits: Criteria for Success, Exhibit Design Approaches, and Research Strategies, Visitor Behaviour) Winter, Volume IX • Lockwood, M., (2012), Convention Center Design: Evolving Spaces for Evolving Needs, Populous.
Topical Outline:	• Modular Massing and Composition • Conceptual Analysis. • Structure consideration in Design. • Elements of Space. • Human integrations in Public Use Building. • Drawing and Representation.
Offered:	• Spring
Faculty assigned:	• Dr. Yassmein H. Abdalla

ARCH 231	**History of Architecture**	**3 credits**
Prerequisites:	• N/A	
Course Description:	This course introduces students to the cultural and aesthetic attributes of architecture in relation to its place and environment. It presents an overview of the different architectural styles worldwide by surveying major works of architecture from the dawn of time until the end of the 19th century.	
Course Goals & Objectives:	By the end of the course students will be able: • to develop general knowledge and understanding of the history of architecture • to demonstrate understanding of the relationships between architecture and broader social, cultural and environmental contexts • to use creatively art/architecture historic sources • to develop critical thinking and reflective engagement with act of experiencing historic environments.	

Course intended Learning Outcomes:	***Knowledge*** • Explain the various theoretical, historical, social, cultural, environmental and technological aspects of architecture. ***ARCH-K3/CLO1 (A.9, A.10) (Assessment of research work, Evaluation of presentation, Assessment of field report, Brainstorming to assess creative ideas, Exams, quizzes, and sketching)*** ***Cognitive skills*** • Analyze the various aspects of interactions between humans and their environment both from architecture and urban design point of view to produce sustainable healthy societies. ***ARCH-C1/CLO2 (A.5, A.7) (Exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, video analysis, group reports, debates, speeches, learning logs, peer evaluations, self-evaluations, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, anecdotal notes, artwork)*** ***Interpersonal skills*** • Demonstrate initiative for independent inquiry and cultivate a deep personal understanding of historical impacts on architectural design through conducting a research. ***ARCH-IR1/CLO3 (Collective/individual researches, Exams, portfolios, long and short essays, log books, journals, case studies, learning logs, peer evaluations, self-evaluations, dramatic performances, discussion forums and interviews).*** ***Communication, IT, and Numerical skills*** • Communicate effectively in oral and written forms, including a presentation to the research work. ***ARCH-CT1/CLO4 (A.5)(Oral presentations of the projects, assignments and in regular class discussions, Grading of assignments will include a component for effectiveness of reflective journals (Sketchbook), presentation and proper use of computer and other digital tools, Midterm exam, Final exam, quizzes, assignment reports)*** ***Psychomotor skills*** • Demonstrate awareness of and sensitivity to produce sketches and visual, auditory, and tactile effects. ***ARCH-P1/CLO5 (A.7, A.5) (Exams, portfolios, individual and group presentations, posters and reflective journal (Sketchbook))***
Student Performance Criterion addressed:	• **A.5 Investigating Skills:** Ability to gather, asses, record, apply, and comparatively evaluate information within architectural coursework and design process • **A.7. Use of Precedents:** Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design. • **A.9 Historical Traditions and Global Culture:** Eastern, Western, Northern and Southern hemisphere in terms of climate, technological, socioeconomic and public health.

Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Michael Fazio. Mofett Marian, Wodehouse Lawrence. Buildings Across Time 5th edition, ISBN-13: 978-0073379296 THIS BOOK IS ON RESERVE IN THE EFFAT LIBRARY • Leland M. Roth , Amanda C. Roth Clark. Understanding Architecture: Its Elements, History, and Meaning, 3ed edition, Westview Press, Boulder, US, 2014. ISBN-10: 0813349036, ISBN-13: 978-0813349039 • Russell Sturgis. A Dictionary of Architecture and Building: Biographical, Historical, and Descriptive, Arkose Press, 2015. ISBN-10: 1346261121, ISBN-13: 978-1346261126 ***Recommended Texts:*** • Taschen. Architectural Theory. From the Renaissance to the Present. 89 Essays on 117 Treatises. 25th edition, 2006. ISBN-10: 3822850853, ISBN-13: 978-3822850855 • Richard Ingersoll, Spiro Kostof. World Architecture: A Cross-Cultural History, 1st Edition, Oxford University Press; 1 edition, 2013. ISBN-10: 0195139577, ISBN-13: 978-0195139570 • Allison lee palmer. Historical Dictionary of Architecture, 2008.,ISBN-10: 0810858215, ISBN-13: 978-0810858213 • Patrick Nuttgens. The Story of Architecture, 2nd Revised ed. Edition. 1997.,ISBN-10: 0714836168, ISBN-13: 978-0714836164 • Isabelle Hyman, and Marvin Trachtenberg. Architecture, from Prehistory to Post modernity. New York: Harry N. Abrams, 2002. ISBN-10: 0810906074, ISBN-13: 978-0810906075 • Francis D.K. Ching, A Visual Dictionary of Architecture, New York: John Wiley and Sons, 2ed edition, 2012. ISBN-10: 8126535644, ISBN-13: 978-8126535644 ***References from Effat Library:*** • Taschen. Architectural Theory. From the Renaissance to the Present. 89 Essays on 117 Treatises. 25th edition, 2006. ISBN-10: 3822850853, ISBN-13: 978-3822850855 • Richard Ingersoll, Spiro Kostof. World Architecture: A Cross-Cultural History, 1st Edition, Oxford University Press; 1 edition, 2013. ISBN-10: 0195139577, ISBN-13: 978-0195139570 • Allison lee palmer. Historical Dictionary of Architecture, 2008.,ISBN-10: 0810858215, ISBN-13: 978-0810858213 • Patrick Nuttgens. The Story of Architecture, 2nd Revised ed. Edition. 1997.,ISBN-10: 0714836168, ISBN-13: 978-0714836164 • Isabelle Hyman, and Marvin Trachtenberg. Architecture, from Prehistory to Post modernity. New York: Harry N. Abrams, 2002. ISBN-10: 0810906074, ISBN-13: 978-0810906075 • Francis D.K. Ching, A Visual Dictionary of Architecture, New York: John Wiley and Sons, 2ed edition, 2012. ISBN-10: 8126535644, ISBN-13: 978-8126535644 • Architecture in Italy 1400-1500 Heydenreich, L. Heinrich, Davies, P. Yale University Press, Pelican History of art, 1996 NA1115.H49 1996 • Italian architecture: From Michelangelo to Borromini Hopkins, Andrew World of art, 2002 NA1115.H66 2002 ***References from Effat Digital Library:*** • Florentine villas in the fifteenth century: an architectural and social history Lillie Amanda, 2005 NA7594.L55 2005 • Companions to the history of architecture: v.1 renaissance and baroque architecture;V.2 Eighteenth-century architecture;V3. Nineteenth-century architecture; v.4. Twentieth-century architecture. Rodner, W.S. Choice reviews for Academic Libraries 03/2018 ***Recommended Articles:*** • The History of Medieval Architecture from Carolingian to Romanesque: Criteria and Definitions from 1925. Eric Fernie Muqarnas, 01/1991, Vol. 8 Full Text on line EU Library

	• Romanesque Construction and the Urban Context: Parthenay-le-Viewx in Aquaitaine Maxwell, R. A. Journal of the Society of Architectural Historians, 03/2007, Vol. 66. Issue I Full Text on line EU Library • Giotto and Renaissance Perspective Hoffmann, Volker, Nexus Netowrk Journal, 04/2010, Vol.12. Issue 1. Full Text on line EU Library • Mass Customisation and Standardisation: An Urban Dialectic Berssani, Martin, Architectural Design, 11/2015, Volume 85,Issue 6 Full Text on line EU Library • The Paris Sewers and the rationalization of urban space, Gandy M. Transactions of the Institute of British Geographers, 03/1999, Vol. 24, Iss.1 Full Text on line EU Library ***Recommended Websites Include:*** • www.archnet.org • http://www.history.com/topics/ancient-history
Topical Outline:	• Prehistory Palaeolithic& Neolithic, Mesopotamia, Ancient Aegean • Mesopotamia, Ancient Egypt Monuments, • Ancient Greece Architecture and Classical Orders, Ancient China, Japan & India, • Roman Empire & Architecture, Roman Villas of Pompeii, • Byzantine Empire, • Romanesque Architecture • Gothic Architecture • Renaissance, Mannerism, Baroque & Rococo Styles with emphasis on key architects and buildings. • 17th century England & America Revival • Arts and Crafts & Art Nouveau, • 19th century Industrial Revolution, England, France • Baron Haussmans' Revitalization plan for Paris, • Early Modernism Austria, Holland, Belgium, Germany
Offered:	• Fall
Faculty assigned:	• Dr. Deborah A. Middleton

ARCH 232	**History of Islamic Architecture**	**3 Credits**
Prerequisites:	• ARCH 231	
Course Description:	This course surveys architectural developments of different Muslim regions and dynasties throughout history. The aim of the course is to acquaint the student with the urban characteristics of Islamic culture through the ages and to increase the student's understanding of relationships between urban principles and Islamic values in art and architecture. In addition, it enhances student's awareness, appreciation, and respect of Muslim architecture. It familiarizes the student with the significant vocabulary of Muslim architecture in order to generate and encourage interest in using and developing such elements.	
Course Goals & Objectives:	• Recognize the generating principles of Islamic architecture. • Explore the development of the vocabularies that formed Islamic architecture. • Examine the role of architecture in serving Islamic culture and values. • Recognize the precepts of Islamic town planning. • Analyze the different styles of Islamic architecture. • Recognize the different types of mosque architectural styles. • Explore the concept of unity and diversity in Islamic architecture. • Analyze the different responds of contemporary architects to Islamic architecture.	

Course intended Learning Outcomes:	***Knowledge*** • Define Islamic architecture and its concept. ***ARCH-K1/CLO1 (A.9) (Library Assignment)*** • Recognize religious and secular architectural styles from the early Islamic period to modernity. ***ARCH-K3/CLO2 (A.9) (Exams + Class participation)*** ***Cognitive skills*** • Analyze the vocabulary of Islamic architecture. ***ARCH-C1/CLO3 (A.9) (Exams + class participation)*** • Examine the development of different shapes and forms. ***ARCH-C2/CLO4 (A.9) (Exams)*** ***Interpersonal skills*** • Demonstrate personal & professional responsibility. ***ARCH-IR1/CLO5 (class participation)*** • Conduct both individual and group research. ***ARCH-IR2/CLO6 (Library Assignment + Term Paper)*** ***Communication, IT, and Numerical skills*** • Develop communication skills through their research presentations and class participation. ***ARCH-CT1/CLO7 (Term Paper)*** ***Psychomotor skills*** • Sketch the principal vocabulary in Islamic architecture. ***ARCH-P1/CLO8 (Sketch Assignment)***
Student Performance Criterion addressed:	• **A.9 Historical tradition and global culture:** eastern, wester, Northern and Southern hemisphere in terms of climate, technological, socioeconomic and public health
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Robert Hillenbrand, Islamic Architecture: form, function, and meaning (New York, 1991) **ISBN:** 0231101333, 9780231101332 • Richard Ettinghausen, Oleg Grabar and Marilyn Jenkins-Madina, Islamic Art and Architecture 650-1250 (New Haven, 2001) ISBN: 9780300088694. 0300088698 • Sheila S. Blair and Jonathan Bloom, The Art and Architecture of Islam 1250-1800 (New Haven, 1994) **ISBN:** 9780300064650, 0300064659 ***References from Effat Library:*** • Robert Hillenbrand, Islamic Architecture: form, function, and meaning (New York, 1991) **ISBN:** 0231101333, 9780231101332 • Richard Ettinghausen, Oleg Grabar and Marilyn Jenkins-Madina, Islamic Art and Architecture 650-1250 (New Haven, 2001) ISBN: 9780300088694. 0300088698 • Sheila S. Blair and Jonathan Bloom, The Art and Architecture of Islam 1250-1800 (New Haven, 1994) **ISBN:** 9780300064650, 0300064659 ***References from Effat Digital Library:*** • Andrew Petersen, Dictionary of Islamic Architecture (London, 1996) **ISBN:** 0415213320, 9780415213325 ***Recommended Texts:*** • Doris Behrens-Abouseif, Islamic architecture in Cairo: an introduction (Cairo, 1989) ISBN: 9789774242038, 9774242033 • Doris Behrens-Abouseif, Cairo of the Mamluks (London, 2007) ISBN: 9781845115494. 184511549X • John Burton-Page, Indian Islamic Architecture (London, 2014) ISBN: 9004163395, 9789004163393 • Dogan Kurban, Ottoman Architecture (Woodbridge, 2010) ISBN: 1851496041, 9781851496044 ***Recommended Articles:***

	• Nasser Rabbat, "The Meaning of the Umayyad Dome of the Rock", Muqarnas vol. 6 (1989) 12-21. • Yasser Tabbaa, "Andalusian Roots and Abbasid Homage in the Qubbat al-Barudiyyin in Marrakech" Muqarnas vol. 25 (2008) 133-146. • F.B. Flood, "Umayyad Survivals and Mamluk Revivals: Qalawunid Architecture and the Great Mosque of Damascus" Muqarnas vol. 14 (1997) 57-79. • Wolfram Kleiss, "Safavid Palaces" Ars Orientalis 23 (1993) 269-280. • Estelle Whelan, "The Origins of the Mihrab Mujawwaf: A Reinterpretation" International Journal of Middle East Studies, Vol. 18, No. 2 (1986), 205-223.
Topical Outline:	• Umayyad architecture • Abbasid Architecture • Fatimid Architecture • Ayyubid Architecture • Mamluk Architecture • Architecture in Andalusia and Maghreb from the Umayyads in Spain until the Marinid dynasty • The Great Seljuk Architecture • Seljuk of Rum Architecture • Ilkhanid, Timurid and Safavid Architecture • Sultanate and Mughal Architecture in the Indian Subcontinent • Ottoman Architecture • The Islamic Extremities: Islamic Architecture in China and the Malay Archipelago • Contemporary Islamic Architecture
Offered:	• Spring
Faculty assigned:	• Hidaya Abbas

ARCH 240	**Architecture, Culture and Environment**	**3 credits**
Prerequisites:	• None	
Course Description:	This course introduces students to the complex interactions between humans and their environment while emphasizing on the social and cultural influences that shape the built environment. Students address specific cases of human modification of the earth. The course highlights the importance of proper environmental planning and design to minimize harmful impacts of humans on the environment.	
Course Goals & Objectives:	The main objective of this course is to increase the awareness of sustainable design practices in a number of diverse and interconnected fields including climate, architecture and human comfort in order to be able to protect the environment through understanding, appreciation, and knowledge. The study of this course will enable the student to: 1. Express knowledge about the environment and its relation to the essential human needs. 2. Define terminologies common to the field of environment and environmental issues. 3. Recognize the importance of this area of human activities and cultures as it will influence her architecture work. 4. Analyze and evaluate the various aspects of interactions between humans and their environment.	

Course intended Learning Outcomes:	***Knowledge*** • Define terminologies related to the environment, its theories and sustainable practices in architecture ***ARCH-K1/CLO1. (Regular Quizzes, Midterm Exam, Final Exam)*** • Identify the impact of the human activities and architecture on the natural environment ***ARCH-K2/CLO2. (Regular Quizzes, Midterm Exam, Final Exam)*** • Recognize the multiple aspects of architecture such as social, cultural and environmental ***ARCH-K3/CLO3. (A.9)(Regular Quizzes, Midterm Exam, Final Exam)*** ***Cognitive skills*** • Analyse the interaction between humans and their environment to produce sustainable healthy societies ***ARCH-C1/CLO4. (A.10) (Midterm Exam, Final Exam)*** • Compare and evaluate projects that optimize, conserve and reuse resources to reduce the human impact on nature ***ARCH-C2/CLO5. (B.8) (Midterm Exam, Final Exam)*** ***Interpersonal skills*** • Demonstrate a sense of responsibility to the culture and sustainable community by promoting environmental awareness to improve the overall quality of life on Earth ***ARCH-IR1/CLO6. (Assignments)*** ***Communication, IT, and Numerical skills*** • Articulate convincingly (verbally and in writing) various design concepts related to environmental theories and sustainable design ***ARCH-CT1/CLO7. (Midterm Exam, Final Exam, Assignments)*** ***Psychomotor skills*** • N/A
Student Performance Criterion addressed:	**A. 9. Historical Traditions and Global Culture:** Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors. **A.10. Cultural Diversity:** Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects. **B.8. Environmental Systems:** Understanding the principles of environmental systems' design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Ragette, F., Traditional Domestic Architecture of the Arab region, (2003), Edition Axel Menges; 1st edition. ISBN 3-932565-30-4 • Raof, S., Crichton, D., Nicol, F., Adapting Buildings and Cities for Climate Change: A 21st Century Survival Guide, (2005), Elsevier/Architectural Press; 2nd edition. ISBN 0750659114. • Bougdah, H., Sharples, S., Environment, Technology and Sustainability, (2010), Taylor & Francis; 1st edition. ISBN10: 0-415-40378-2 ***References from Effat Library:*** • Smith, P., Architecture in a Climate of Change, a Guide to Sustainable Design, (2005), Elsevier/Architectural Press; 2nd edition. ISBN 0750665440. • Heywood, H., 101 Rules of Thumb for Sustainable Buildings and Cities, (2015), RIBA Publishing; 1st edition. ISBN: 9781859465745. ***References from Effat Digital Library:***

	• Davis, H., The Culture of Building, (2014), Oxford University Press; 1st edition. ISBN 9780199772179 • DiMento, J. F.C., Climate Change: What It Means for Us, Our Children, and Our Grandchildren, (2007), MIT Press; 1st edition. ISBN 9780262042413. ***Recommended Texts:*** • Goudie, A., Human Impact on the Natural Environment: Past, Present and Future, (2013), Wiley-Blackwell; 7th edition. ISBN 978-1-118-57657-1. • Thompson, G., Turk, J., Earth Science and the Environment, (2007), Thomson Brooks/Cole; 4th edition. ISBN 0-495-11287-9 • Fathy, H., Architecture for the Poor: An Experiment in Rural Egypt, (1973), University of Chicago Press; 1st edition. ISBN 0226239160. ***Recommended Articles:*** • Jong-Jin, k., & Rigdon, B. (1998). Introduction to sustainable design. National Pollution Prevention Center for Higher Education. Retrieved from http://www.umich.edu/~nppcpub/resources/compendia/ARCHpdfs/ARCHdesIntro.pdf • Climate change. Cities in action. Cisco Publication (2009). • Stasinopoulos, T., (2006). The Four Elements of Santorini Architecture Lessons in Vernacular Sustainability. PLEA2006 - The 23rd Conference on Passive and Low Energy Architecture, Geneva, Switzerland.
Topical Outline:	• Natural, Built and Social Environment. • Human - Environment Interactions: Land-Use Transformation/Climate Transformation • Climate Change: the Causes, the Proofs and the Impacts. • Population Growth. • Modern Environmental Theories. • Sustainable Communities: Principles and Theories. • Case Studies.
Offered:	• Fall
Faculty assigned:	• Maya Kamareddine

ARCH 252	**Building Construction**	**3credits**
Prerequisites:	• ARCH 150	
Course Description:	In this course, fundamentals of building construction are introduced to the students; project delivery system & associated professions. Students should be familiarized with different building structures' types, with focus on traditional construction methods and materials such as load bearing, skeleton structures and used building materials (In-situ and Pre-fabricated). The course will also cover construction process, internal finishing, as well as the construction of main building elements including foundations, stairs, doors and windows. Different Building insulation & materials would be presented, explained & discussed.	
Course Goals & Objectives:	• Describe the building delivery process. • Identify different material used in building construction • Distinguish different construction methods and techniques used in the construction site. • Differentiate different types of foundations and finishes and insulation materials. • Sketch details for wall section, flooring layers and roofs insulation.	

Course intended Learning Outcomes:	***Knowledge*** • Define construction terminologies. ***ARCH-K1/CLO1- (Quizzes and Exams)*** • Identify different material& finishes used in building construction. ***ARCH-K2/CLO2, (B.12) (Assignment 3+Quiz 1 and Exams)*** • Describe the sequence of construction & building delivery process on the site. ***ARCH-K3/CLO3. (Midterm)*** ***Cognitive skills*** • Distinguish types of foundations, bricks and its bonds and main building elements including stairs, doors and windows. ***ARCH-C1/CLO4 (Quiz 2+ Final Exam)*** • Differentiate construction methods and building structural types. ***ARCH-C3/CLO5 (B.9) (Ass.2, Quizzes and Exams)*** ***Interpersonal skills*** • Work effectively in research groups about building structures & elements. ***ARCH-IR2/CLO6 (Assignment 1)*** ***Communication, IT, and Numerical skills*** • Use IT resources& different software to present their gained knowledge and illustrate their understanding of the subject. ***ARCH-CT1/CLO7 (Assignment 1)*** ***Psychomotor skills*** • Sketch details for wall section, flooring section and stairs. ***ARCH-P1/CLO8 (Assignment3)***
Student Performance Criterion addressed:	• **B. 9. Structural Systems:** Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems. • **B. 12. Building Materials and Assemblies:** Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Medan Mehta, Walter Scarborough, & Diane Armpriest, (2017). Building Construction: Principles, Materials, & Systems. ISBN-13: 978-0134454177 ***References from Effat Library:*** • Ching, Francis. (2013). Building Construction Illustrated4th_edition. Wiley & Sons. ***References from Effat Digital Library:*** • Edward Allen and Joseph Iano (2013). Fundamentals of Building Construction: Materials and Methods. Wiley & Sons. ISBN-13: 978-1118138915. ***Recommended Texts:*** • Nikolas Davies, Erkki Jokiniemi. (2008). Architecture student starter bundle: Dictionary of Architecture and Building Construction. ISBN-13: 978-0750685023 • Roy Chudley, Roger Greeno. (2010). Building Construction Handbook Paperback. ISBN-978-1-85617-805-1. ***Recommended Articles:*** • Conference proceedings: Review of factors affecting the durability of repointing mortars for older masonry" http://rci-online.org/wp-content/uploads/2006-BES-rousseau.pdf • Middle east construction news: http://meconstructionnews.com/topics/saudi-arabia • Saudi construction sector revitalized by Vision 2030:

Topical Outline:	• Structural systems • Construction material • Concrete Formwork & Reinforcement • Sequence of the construction process on the site • Shallow and Deep Foundation • Masonry Material &Walls • Doors and windows • Drawing Section details • Stairs • Finishing process and criteria
Offered:	• Spring
Faculty assigned:	• Dr. Rahma Doheim

ARCH 256	**Computer Aided Architectural Design -2**	**3 credits**
Prerequisites:	• ARCH 150	
Course Description:	This course builds on skills learnt in the first computer aided architectural design course. Students will develop their computation skills to reach professional ability to produce technically clear drawings, including 2D and 3D simulations and computer presentations and advanced rendering techniques.	
Course Goals & Objectives:	• Construct a Revit 3D BIM Model. • Appreciate architectural design drawing production. • Learn about the 3D Massing environment in Revit • Extract quantities from the Revit model. • Develop professional understanding about drawing coordination. • Understand techniques in basic parametric design (Revit Families). • Be able to render and visualize design concepts.	
Course intended Learning Outcomes:	***Knowledge*** • Recognize Revit software 2019. ***ARCH-K1/CLO1*** • Define drawing, editing and presentation commands of Revit related to 3D modelling. ***ARCH-K2/CLO2 (Assignments- 1)*** ***Cognitive skills*** • Develop project information in schedules (programming, rooms, door, areas, etc.). ***ARCH-C2/CLO3 (Assignments- 2)*** • Prepare technically clear drawings, project information and technical details. ***ARCH-C4/CLO4 (Midterm Exam – Final Exam)*** ***Interpersonal skills*** • Use the computers and computer aided design software in drafting and design processes. ***ARCH-IR1/CLO5 (Assignments- 1)*** • Judge students' problem solving skills ***ARCH-IR2/CLO6 (Quiz)*** ***Communication , IT , and Numeral skills*** • Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process ***ARCH-CT2/CLO7 (A.3) (Quiz/Project)*** ***Psychomotor skills*** • Demonstrate mental physical coordination in producing architectural drawings ***ARCH-P1/CLO8).(Assignments- 3)***	

Student Performance Criterion addressed:	• **A. 3. Visual Communication Skills**: Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Autodesk Revit Architecture 2017 Essentials. Phil Read, Eddy Krygiel, and James Vadezande. ISBN 978-1-118-01683-1 • Mastering Revit Architecture 2018. Lance Kirby, Eddy Krygiel, and Marcus Kim (Author). ISBN-13: 978-1119386728 • Revit Architecture 2018 for Designer. Douglas R. Seidler.ISBN-13: 978-1501327704 ***References from Effat Library:*** • Mastering Autodesk Revit 2018 by Marcus Kim; Lance Kirby; Eddy Krygiel **ISBN:**9781119386728 ***References from Effat Digital Library:*** • BIM handbook: a guide to building information modeling for owners, managers, designers, engineers and contractors by Eastman, Charles M **ISBN:**9780470541371 ***Recommended Texts:*** • BIM Handbook. Chuck Eastman, Paul Teicholz, Rafael Sacks, and Kathleen Liston. ISBN 978-0-470-18528-5 • BIM Collaboration with Autodesk Naviswork Paul F. Aubin & Darry MCClelland. ISBN13: 978-1500434878 ***Recommended Articles:*** • Conceptual Building Design and Basic BIM and Revit 2018 Christiansen, Raun. ISBN13: 978 8799668557 • Autodesk Revit 2018 Collaboration Ascent-Center for Technical Knowledge. ISBN13: 978-1946571588 • Autodesk Revit 2018 BIM Management Ascent-Center for Technical Knowledge. ISBN13: 978-1946571564
Topical Outline:	• BIM Process • 2D and 3D Revit Modelling Tools • Material, Shade, shadow and Lighting Concept • Site and Landscaping Designing • Conceptual Mass Modelling • Material and Quantity Take off • Family Creation • Rendering, Walkthrough and Presentation
Offered:	• Spring
Faculty assigned:	• Mr. Juergen Schlueter

ARCH 305	**Architecture Design Studio 5**	**5 credits**
Prerequisites:	• ARCH 204 - ARCH 252	

Course Description:	This architecture design studio emphasizes the development of professional comprehensive skills in design synthesis. Specifically the design of buildings in response to a context that is significant for historical and urban characteristics. Analysis includes programming, typology, site and place, and influence of regulatory measures and codes on building form. Students will be trained to define strategies for problem solving, and develop structured arguments about their design concepts and the means to document and communicate them effectively. This argument includes comprehensive integration of accessibility, sustainability, and deep understanding of structural systems and life safety principles.
Course Goals & Objectives:	• Produce innovative design ideas and concepts. • Enhance problem-solving methods for architectural projects. • Be able to produce architectural forms and plans that incorporate complex design elements. • Express and present a personal concept and view of architecture problem solving. • Developing Self-management (meta-cognitive skills) and work under a timeframe. • Be able to use techniques of various computer software skillfully. • Be able to solve complex horizontal and vertical circulations within architectural space.
Course intended Learning Outcomes:	***Knowledge*** • Develop innovative design process and concepts using different architectural elements necessary for proper functioning of human activities. ***ARCH-K2/CLO1 (B.2) (Assignments, Mid-term Exam, Final Exam)*** • Understand the context and impact of location and site on architectural design, and incorporate social, cultural, historical and environmental context into design projects. ***ARCH-K1/CLO2 (A.11)(Assignments, Mid-term Exam, Final Exam)*** ***Cognitive skills*** • Interpret the main elements of architecture: including building functionality, site and landscape interface, basic environmental concerns (orientation, ventilation, light, and materials), structural systems, and apply this knowledge into a comprehensive design project. ***(ARCH-C1/CLO3 (A.2) (Assignments, Mid-term Exam, Final Exam, Final Jury)*** • Diagram the analysis of the different aspects of the design project. ***ARCH-C2/CLO4 (B.5) (Assignments, Final Exam, Final Jury)*** ***Interpersonal skills*** • Apply the student's ability and responsibility of conducting an individual research, submitting a project report, and produce a whole set of architectural drawings. ***ARCH-IR1/CLO5 (Assignments, Final Jury)*** • Develop students' communication skills. ***ARCH-IR3/CLO6) (Assignments, Final Jury)*** ***Communication, IT, and Numerical skills*** • Demonstrate ability to present projects in front of a jury panel and advocate the design proposals in a public setting, and accept critique in a constructive manner. **A*RCH-CT1/CLO7 (Final Jury)*** ***Psychomotor skills*** • Produce professional sketches and technical drawings, and prepare advanced models illustrating design creation ability. ***ARCH-P1/CLO8) (A.2) (Assignments, Final Exam)***

Student Performance Criterion addressed:	**A. 2. Design Thinking Skills:** Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards. **A.11. Applied Research:** Understanding the role of applied research in determining function, form, and systems and their impact on human conditions and behavior. **B.2. Accessibility:** Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities. **B.5. Life Safety:** Ability to apply the basic principles of life-safety systems with an emphasis on egress.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Sarkisian, M., Designing tall buildings: structure as architecture, (2012), Routeledge; 1st edition. ISBN:9780415894807. • Ching, F. D. K., Architecture: Form, Space, and Order, (2015), Wiley, ISBN: 978-1118745083 ***References from Effat Library:*** • Gao, A., Building skin & details, (2011), Design Media Publishing Limited; 1st edition. ISBN:9789881506931. • Yu, Mayine L., Skins, Envelopes, and Enclosures: Concepts for Designing Building Exteriors, (2014), Routledge, ISBN: 978-0415899796 ***References from Effat Digital Library:*** • Boswell, K., Exterior Building Enclosures: Process and Composition for Innovative Skins, (2013), John Wiley & sons; 1st edition. ISBN: 978-0-470-88127-9 ***Recommended Texts:*** • Ching, F., Onouye, B., Zuberbuhler, D., Building Structures Illustrated: patterns, systems, and design, (2013), John Wiley & Sons Inc.; 2nd edition. ISBN: 978-1118458358 • Tamboli, A. R., Tall and Super Tall Buildings: Planning and Design, (2014), McGraw Hill; 1st edition. ISBN: 978-0071818711 • Ford, E., The Details of Modern Architecture: Volume 2: 1928 to 1988, (2003), The MIT Press, ISBN-10: 0262562022. ***Recommended Articles:*** • Chen, Xi; Yang, Hongxing; Wang, Yuanhao (2017), Parametric study of passive design strategies for high-rise residential buildings in hot and humid climates, Chen, Xi; Yang, Hongxing; Wang, Yuanhao, Vol 69, P, 442 – 460. • Kim, Sang Bum; Lee, Young Hak; Scanlon, Andrew (2008) Comparative study of structural material quantities of high-rise residential buildings, The Structural Design of Tall and Special Buildings, Vol 17, P. 217 – 229.
Topical Outline:	• Preliminary Concept and Site Analysis: Pre-Design Research, Building Regulations, • Site Analysis, and Case Study • Project Concept Work Development: Program Analysis, Conceptual Studies and Massing • Project Design Work Development: Floor Plans • Project Design Work Development: Accessibility and Life safety • Project Design Work Development: Elevations Study and 3d Shots
Offered:	• Fall
Faculty assigned:	• Mrs.Maya Kamareddine, Dr. Rahma Doheim

ARCH 306	**Architecture Design Studio-6**	**5 credits**
Prerequisites:	• ARCH 305 - ARCH 342 - Good Standing	
Course Description:	This urbanism studio course aims to raise students' awareness of the architect's role in the community. The students consider the functional and formal relations between urban components including buildings and spaces surrounding them, and focus on the varied and complex needs of the users of urban environment. They also focus on sustainability issues related to architectural and urban design, and recognize the influence of codes, rules, and regulations, on the urban design. So students can design building(s) as a part of public realm taking in to account functional, formal, socio - economic, environmental, aspects and in the frame of existing regulations.	
Course Goals & Objectives:	• An architectural design competence in the area of public realm and urbanism. • An understanding of the relationship of a selected range of technical, programmatic, theoretical and professional issues and their implications in building design	
Course intended Learning Outcomes:	***Knowledge*** • Define the concept of the city and its related terminology. ***ARCH-K1 /CLO1 (Research)*** • Describe the relationship between buildings and the public realm in urban scale. ***ARCH-K2/CLO2 (B.2) (Assignment 3)*** • Recognize historical/ social/ cultural and technological base of urban design. ***ARCH-K3/CLO3 (Research)*** ***Cognitive skills*** • Analyze the different aspects of the urban sites. ***ARCH-C1/ CLO4 (Assignment1 (P1,P2))*** • Apply principles of architectural and urban design in solving urban sites problems. ***ARCH-C2/ CLO5 (A.7, B.4) (Mid-Term- Assignment 2-Assignment3)*** ***Interpersonal skills*** • Produce an individual or in-group research, a project report, a whole set of architectural, and urban drawings with respecting professional ethics. ***ARCH-ISR2/ CLO6 (Final Project)*** ***Communication, IT, and Numerical skills*** • Present and defend their projects in a jury. ***ARCH-CNIT1/ CLO7 (Pre-Jury and Final Project)*** ***Psychomotor skills*** • Collaborate with others to successfully complete design projects. ***ARCH-PSY1 /CLO8 (Final Project).***	
Student Performance Criterion addressed:	• **A.7 Use of Precedents:** Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects. • **B. 2. Accessibility:** Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities. • **B.4. Site Design:** Ability to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.	
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Urban Design Method and technique by J. C. Moughtin (Author), Rafael Cuesta BSc MA MRTPI (Author), Christine Sarris BSc MA (Author), & 2 more published by Architectural Press (August 31, 1999) ISBN-13: 978-0750641029 ***References from Effat Library:***	

	• Designing Sustainable Cities in the Developing World (Design and the Built Environment) by Georgia Butina Watson (Author), Roger Zetter (Editor) ISBN-13: 978-0754643555, ISBN-10: 0754643557 ***References from Effat Digital Library:*** • Urban Planning Today : A Harvard Design Magazine Reader 2006 by William S. Saunders, editor Introduction by Alexander Garvin ISBN 978-0-8166-4757-6 ISBN 978-0-8166-4756-9. ***Recommended Texts:*** • Planning the good community: new urbanism theory and practice by Jill Grant (Author), Published January 24th 2006 by Routledge ISBN-13: 978-0415700757 ISBN-10: 0415700752 ***Recommended Articles:*** • A review of recent studies on sustainable urban renewal by Zheng, Helen Wei; Shen, Geoffrey Qiping; Wang, Hao Habitat International, 01/2014, Volume 41 • 'Urban Transformation' as State-led Property Transfer: An Analysis of Two Cases of Urban Renewal in Istanbul by Tuna Kuyucu; Özlem Ünsal , Urban Studies, 06/2010, Volume 47, Issue 7
Topical Outline:	• Site Analysis • Survey • Producing Existing Situation Maps • Analysis Process • Concept • New Masterplan • Urban and Architectural Details
Offered:	• Spring
Faculty assigned:	• Dr. Samaa Badwi, Dr. Moshira Al Rafey, Dr. Al Shaimaa El Sayed

ARCH 341	**Theory of Architecture**	**3 credits**
Prerequisites:	• ARCH 231	
Course Description:	This course offers an introduction to issues of architectural theory and practice of the 20th century through lectures and discussions. The course examines the interaction of philosophical, cultural, ethical and socio-economic concepts and architectural form and expression. It explores the relationships between buildings and their historical and cultural contexts.	
Course Goals & Objectives:	The study of this course will enable the student to: • Recognize the relationship between theory and practice in architecture. • Explore recent architecture movements, while also undertaking an individual, in-depth research study on a subject of their own selection. • Examine the evolution of modern and postmodern architecture in relation to their historical socio/economic cultural contexts. • Analyze and critique of contemporary architecture in terms of form, expression, and its relation to local architecture.	
Course intended Learning Outcomes:	***Knowledge*** • Define different architectural theory and practice of the 20th century. ***ARCH-K1/CLO1 (A.9) (Midterm exam - Final exam)***	

	• recognize buildings' historical and cultural context. ***ARCH-K3/CLO2 (A.10) (Midterm exam - Final exam)*** ***Cognitive skills*** • Analyze and critique of contemporary architecture in terms of form, composition, and its relation to local architecture. ***ARCH-C1/CLO3 (A.9) (Quiz 3 - Midterm exam - Final exam)*** • Examine the evolution of modern and postmodern architecture in relation to their historical socio/economic cultural contexts. ***ARCH-C2/CLO4 (A.9) (Quiz 2)*** ***Interpersonal skills*** • Conduct both individual and group research, on a subject of their own selection. ***ARCH-IR1/CLO5 (A.5) (Research)*** ***Communication, IT, and Numerical skills*** • Develop communication skills and IT capabilities through their research presentations. ***ARCH-CT1/CLO6 (A.1) (Research Presentation)*** ***Psychomotor skills*** • NA.
Student Performance Criterion addressed:	• **A.1. Communication Skills:** Ability to read, write, speak and listen effectively • **A.5. Investigative Skills:** Ability to gather, assess record, apply, and comparatively evaluate relevant information within architectural coursework and design processes. • **A.9. Historical Traditions and Global Culture:** Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors. • **A.10. Cultural Diversity:** Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Chin, Francis D. K., Architecture: Form, Space, and Order, (2014), Wiley; 4th edition. ISBN-10: 1118745086, ISBN-13: 978-1118745083 • Gossel, Petert & Leuthauser, G. Architecture in the 20th Century, (2001), Taschen. ISBN-10: 3822811629, ISBN-13: 978-3822811627 • Jenks, Charles, The new paradigm in Architecture, The New Langauge of Postmodernism, (2002), Yale University Press; 7th edition, ISBN-10: 0300095120, ISBN-13: 978-0300095128 • Lampugnani, V. M., Encyclopaedia of 20th Century Architecture, (2004), Fitzroy Dearborn Publishers. ISBN-10: 1579584349, ISBN-13: 978-1579584344 • Lerum, Vidar, Sustainable Building Design: Learning from nineteenth-century innovations, (2015), Routledge, ISBN-10: 0415840740, ISBN-13: 978-0415840743 • Simitch, Andrea and Warke, Val, The Language of Architecture: 26 Principles Every Architect Should Know, (2014), Rockport Publishers, ISBN-10: 1592538584, ISBN-13: 978-1592538584 ***References from Effat Library:*** • Costanzo, Denise, What architecture means: connecting ideas and design (2016). Routledge, New York. ***References from Effat Digital Library:***

	• Adler, Gerald; Brittain-Catlin, Timothy; Fontana-Giusti, Gordana, Scale: imagination, perception and practice in architecture (2012). Routledge, Taylor and Francis, New York, Abingdon, Oxon ***Recommended Texts:*** • Haddad, Elie G., and Rifkind, David, A Critical History of Contemporary Architecture: 1960-2010, (2014), Routledge; New edition, ISBN-10: 140943981X, ISBN-13: 978-1409439813 • Jabi, Wassim, Parametric, Parametric Design for Architecture, (2013), Laurence King Publishing, ISBN-10: 1780673140, ISBN-13: 978-1780673141 , ISBN-10: 1864704950, ISBN-13: 978-1864704952 • M. Roth, Leland, Understanding Architecture: Its Elements, History, and Meaning, (2013), Westview Press; 3 edition, ISBN-10: 0813349036, ISBN-13: 978-0813349039 • Norberg-Schulz, Christian, Architecture: Presence, Language and Place, (2000), Skira, ISBN-10: 8881187000 • Trachtenberg, M., Hyman, I., Architecture, from Prehistory to Post modernity, (2003), Prentice Hall; 2nd edition, ISBN-10: 0131833650. • Unwin, S., Analysing architecture, (2009), Routledge; 3 edition, ISBN-10: 0415489288. ***Recommended Articles:*** • Pop, Dana, Theorising Between Space and Place A Case Study on Perceptive Architecture - Serpentine Gallery Pavilions. Philobiblon, 07/2015, Volume 20, Issue 2. https://search.proquest.com/docview/1751998519?pq origsite=summon • Begde, Prabhakar V., Architecture and Beyond. Architecture + Design; New Delhi 29.8 (Aug 2012): 24-28. https://search.proquest.com/docview/1038370009?pq-origsite=summon
Topical Outline:	• Historical and cultural contexts of the 20th century architecture • Pioneers of Modern Architecture • Concepts of modern architecture (Metabolism) • Late modern architecture • Postmodern architecture • Deconstruction Architecture • Sustainability (Eco-Architecture- Green Architecture) • Contexualism • Community architecture • Place and Phenomena • Futuristic architecture
Offered:	• Fall
Faculty assigned:	• Dr. Abdel-moniem El-Shorbagy

ARCH 342	**Urban Design**	**3 credits**
Prerequisites:	• ARCH 231	
Course Description:	This course is a study of the basic principles of urban design, which are required for the design of a new area, or re-developing an existing area. The course will include the influence of the climatic, ecological, technological, economic and social factors on design. Open spaces, pedestrian and car movement, and public and private utilities are some of the urban design elements discussed in this course.	
Course Goals & Objectives:	• State the historical development of urban design from Ancient times to the present. • Recognize the different elements of urban design in cities. • Explain the concepts of sustainable urban movements. • Prepare a small project following the practical steps undertaken in urban design projects.	
Course intended Learning Outcomes:	***Knowledge*** • Define the concept of urban design and its related terminology. ***ARCH-K1 /CLO1 (QUIZ1)*** • State the historical development of urban design from Ancient times to the present. ***ARCH-K2/CLO2 (QUIZ2)*** • Recognize different aspects and principles of urban design. ***ARCH-K3/CLO3 (A.9) (Midterm Exam)*** ***Cognitive skills*** • Analyze the various aspect of interactions between human and their environment both from architecture and urban design point of view to produce sustainable healthy societies. ***ARCH-C1/CLO4 (C.2) (Assigment1)*** • Apply architectural and urban principles and techniques in solving urban problems. ***ARCH-C2 /CLO5 (Final Exam)*** ***Interpersonal skills*** • Work effectively in a group to solve a small urban design problem adhering to professional ethics. ***ARCH-IR1/CLO6 (Assigment1)*** • Design small urban project displays responsibility to sustainable community aspects. ***ARCH-IR2/CLO7 (Project)*** ***Communication, IT, and Numerical skills*** • Articulate convincingly (verbally and in writing) various design concepts related to environmental theories and sustainable design. ***ARCH-CT1/CLO8 (Research)***	
Student Performance Criterion addressed:	• **A.9. Historical Traditions and Global Culture:** Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors. • **C.2. Human Behavior:** Understanding of the relationship between human behavior, the natural environment, and the design of the built environment.	

Textbooks/Learning Resources:	**Prescribed books:** • Defining Urban Design: CIAM architects and the formation of a discipline, 1937-69 / by Mumford, Eric Paul,Published by : Yale University Press], ([New Haven :)Physical details: ix, 262 p. : ill. (some col.), map; 27 cm.ISBN:0300138881 (cloth : alk. paper); 9780300138887 (cloth : alk. paper). **Recommended Texts:** • URBAN DESIGN: METHOD AND TECHNIQUES by Cliff Moughtin, Rafael Cuesta, Christine Sarris and Paola Signoretta British Library Cataloguing in Publication Data Urban design: method and techniques 1. City planning I. Moughtin, J. C. 711.4 ISBN 0 7506 4102 9 **References from Effat Library:** • Measuring Urban Design: metrics for livable places / by Ewing, Reid H. Additional authors: Clemente, Otto.ISBN:9781610911948 **References from Effat Digital Resources:** • Understanding Cities Method in Urban Design by Alexander Cuthbert, Print publication date: June 2011, Online publication date: June 2011. Print ISBN: 9780415608237 eBook ISBN: 9780203817933 **Recommended Articles** • Aesthetics of Urban Design by Paetzold, Heinz Diogenes, 02/2012, Volume 59, Issue 1-2 • The influence of urban design on neighbourhood walking following residential relocation: longitudinal results from the RESIDE study by Giles-Corti, Billie; Bull, Fiona; Knuiman, Matthew; More...Social science & medicine (1982), 01/2013, Volume 77
Topical Outline:	• Introduction to Urban Design • Urban Design Definitions. • Urban Design Dimensions. • Urban Open Spaces • Historical Background • Contemporary Theories • Small Urban Design Project
Offered:	• Fall
Faculty assigned:	• Dr. Al Shaimaa El Sayed

ARCH 343	**Introduction to Landscape Architecture**	**5 credits**
Prerequisites:	• ARCH 240	
Course Description:	This course introduces the students to the principles of landscape architectural design. The cour involves the study and review of distinguished landscape architecture projects chosen from th middle of the nineteenth century until recent times.	
Course Goals & Objectives:	• Increase and enhance her knowledge about natural and human made landscapes and its relation to our essential human needs. • Build up a relevant vocabulary to be able to research in this area of knowledge. • Became knowledgeable of the definitions and terminologies common to this field. • To be able to analyze, criticize, and evaluate the various aspects of interactions between Human and their environment. • Recognize the link and mutual influences between environment, architecture and landscape through examples from different civilizations. • Recognize the importance of this area of human activities as part of the influences on her architecture and landscape architecture work, both historically and contemporary.	

	• Analyze, criticize, and evaluate the various aspects of interactions between Human and their environment and the influence of urban landscape on the production of healthy societies. • Peruse case studies and research them in relation to the main topics of the subject she has studied and in relation to the local and global conditions • Conduct a minor research that shows the student's interpersonal skills and enhance ability of presentation techniques. • Increase her awareness of due dates, and to enhance her self-confidences and responsibility.
Course intended Learning Outcomes:	***Knowledge*** • Define the terminologies common to the field of Landscape architecture. ***ARCH-K1-CLO1 (Mid-Term)*** • Recognize landscape architecture and concepts of landscape architecture. ***ARCH-K2 – CLO2- (A.9) (Quiz1, Research)*** • Memorize the principles of Landscape Architecture. ***ARCH-K3 – CLO3 (Mid-Term-Quiz2- Final Exam)*** ***Cognitive skills*** • Analyze the different aspects of the urban sites. ***ARCH-C1/ CLO4 (Assignment1-Final Exam)*** • Apply principles of architectural and urban design in solving urban sites problems. ***ARCH-C2/ CLO5 (B4) (Assignment2- Mid-Term)*** ***Interpersonal skills*** • Work effectively in a group or individually to produce a research or to solve a small landscape design problem. ***ARCH-IR1/ CLO6 - (Research)*** • Produce small landscape design project displays responsibility to sustainable. Community aspects. ***ARCH-IR2/ CLO7 (Final Project)*** ***Communication, IT, and Numerical skills*** • Communicate effectively in oral and written forms, including the creation of appropriate technical documentation. ***ARCH-CT1/ CLO8 (Final Project)***
Student Performance Criterion addressed:	• **A.9: Historical Traditions and Global Culture:** Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors. • **B.4: Site Design:** Ability to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Landscape Architecture: An Introduction (2014), Laurence King Publishing. ISBN-10: 1780672705 , ISBN-13: 978-1780672700 • JTart., Appreciation of private gardens (2014), Published by JTart Pub., (China) ISBN:9787562343127. ***References from Effat Library:*** • Rayan Thomas, Detailing for landscape architects: aesthetics, function, constructability (2011), Wiley Publisher. ISBN: 9780470548783 • Booth, Norman K, Foundations of landscape architecture: integrating form and space using the language of site design (2012), Wiley Publisher. ISBN: 0470635053 ***References from Effat Digital Library:*** • Robert Holden and Jamie Liver sedge, Landscape Architecture: An Introduction (2014), Laurence King Publishing. ISBN: 9781780674193

	• Francesco Bandarin and Ron van Oers, Historic Urban Landscape: Managing Heritage in an Urban Century (2012), Wiley Publisher. ISBN: 9781119968085 ***Recommended Texts:*** • Design Workshop, Landscape Architecture Documentation Standards: Principles, Guidelines and Best Practices (2015), John Wiley & Sons, Incorporated Publisher. ISBN: 9781118415122 • Waterman, Tim.The Fundamentals of Landscape Architecture (2009), Fairchild Books Publisher. ISBN-10: 2940373914 • ISBN-13: 978-2940373918 • John Ormsbee Simonds, Barry W. Starke, Landscape Architecture (2006), McGraw-Hill Publisher. ISBN10:0071461205• ISBN 9780071461207 ***Recommended Articles:*** • Juan Manuel PalermSalazar, Landscape Architecture and Water. • Xiang, Lin, On the Construction of Plant Landscape Form in Urban Landscape Architecture.
Topical Outline:	• Introduction to the landscape • Landscape elements • History of Landscape • Site Analysis • Concept • Garden Masterplan • Landscape Details
Offered:	• Spring
Faculty assigned:	• Dr. Samaa Badwi, Mrs. Deema ElKhteeb

ARCH 350	**Structure in Architecture 1**	**3 credits**
Prerequisites:	• GPHY 112 - ARCH 252	
Course Description:	This course introduces the students to the role of structures and their elements in the architectural design of a space. The topics covered include finding: force components, resultant of a system of forces, moment of forces, reactions at different support conditions, tension and compression forces in truss members, and shear force and bending moment and their associated diagrams in beams	
Course Goals & Objectives:	The objectives of this course are to enable the student to: • Identify different structures (beams, trusses, and frames) • Write the equations of equilibrium of a statically determinate structure • Analyze trusses and beams and find their internal forces and bending moments	
Course intended Learning Outcomes:	***Knowledge*** • Recognize basics of algebra, geometry and trigonometry ***ARCH-K3 (A.8) (Assignments, Midterm Exam)*** • Recognize the structural properties of simple areas ***ARCH-K3 (A.8) (Assignments, Midterm Exam)*** • Recognize the types of loads that act on buildings ***ARCH-K3 (B.9) (Assignments, Midterm Exam)*** • Recognize basics for the calculations of resultant, writing equations of equilibrium and calculation of internal forces ***ARCH-K3 (B.9) (Assignments, Final Exam)*** ***Cognitive skills***	

	• Solve basic problems in algebra, geometry and trigonometry ***ARCH-C2 (A.8) (Assignments, Final Exam)*** • Calculate the components of a force and resultant of a system of concurrent forces ***ARCH-C3 (B.9) (Assignments, Quizzes, Final Exam)*** • Calculate the moment of a system of forces and couples about a point ***ARCH-C3 (B.9) (Assignments, Quizzes, Final-Q1)*** • Draw the free-body diagram of different structures and write the equations of equilibrium (EoE) and find reactions of statically determinate structures according to their different support conditions ***ARCH-C2 (B.9) (Final-Q3, Final-Q4, Midterm, Quiz 2)*** • Analyze trusses and beams find their internal forces and present them in diagrams ***ARCH-C2 (B.9) (Final-Q2, Final-Q5, Final-Q6, Assignments)*** ***Interpersonal skills*** • Demonstrate ability to work in a team to solve a structural problem ***ARCH-IR1 (Assignments)*** ***Communication , IT , and Numerical skills*** • Demonstrate ability to use different tools to communicate effectively in written and/or graphical formats ***ARCH-CT1 (Assignments, Quizzes, Midterm Exam, Final Exam)*** • Use techniques, skills, and modern engineering tools to solve structural problems ***ARCH-CT2 (Assignments, Quizzes, Midterm Exam, Final Exam)*** ***Psychomotor skills*** • NA
Student Performance Criterion addressed:	• **A.8. Ordering Systems Skills:** Understanding of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design. • **B.9. Structural Systems:** Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Hibbeler, R. C., Engineering Mechanics, STATICS, (2015), Pearson, 14th edition (ISBN-13: 978-0133918922, ISBN-10: 0133918920) • Beer, F., Johnson Jr., E.R., Mazurek, D., Cornwell, P. and Self, B., Vector Mechanics for Engineers: Statics, (2015), McGraw-Hill Education, 11th Edition (ISBN-13: 978-0073398242, ISBN-10: 0073398241) ***References from Effat Library:*** • Onouye, Barry, Statics and strength of materials for architecture and building construction, Pearson Prentice Hall, 2007, 3rd Ed (ISBN: 0131185837) ***References from Effat Digital Library:*** • Russell C. Hibbeler, Statics and Mechanics of Materials in SI Units, Pearson Education Limited, 2017, 5th edition (ISBN: 978-1-292-17791-5) ***Recommended Texts:*** • Bedford, A.M. and Fowler, W., Engineering Mechanics: Statics & Dynamics (2008), Pearson, 5th Edition (ISBN-13: 978-0136142256, ISBN-10: 0136142257) • Meriam, J.L., Kraige, L.G. and Bolton, J.N., Engineering Mechanics: Statics (2014), Wiley Publishing, 8th Edition (ISBN-13: 978-1118807330, ISBN-10: 1118807332) • Plesha, M. and Gary, G., Engineering Mechanics: Statics (2012) (ISBN-13: 978-0073380292, ISBN-10: 0073380296)

	• Allen, J., Statics For Dummies (2010), Wiley Publishing, 1st Edition (ISBN-13: 978-0470598948, ISBN-10: 0470598948) ***Recommended Articles:*** • Hubing, N., Oglesby, D., Philpot, T., Yellamraju, V., Hall, R., and Flori, R., (2002), "Interactive Learning Tools: Animating Statics", Proceedings of the ASEE Annual Conference, Montréal. http://lite.mst.edu/media/research/ctel/documents/asee_2002_hubing_interact.pdf • David Hall (2003), Design, Fabrication and Testing of Wooden Trusses for Undergraduate Mechanics, Proceedings of the ASEE 2003 Annual Conference. https://peer.asee.org/design-fabrication-and-testing-of-wooden-trusses-for-undergraduate-mechanics.pdf
Topical Outline:	• Review of basic algebra, geometry and trigonometry • Introduction to the different structural elements • Components of a force and/or a system of concurrent forces • Resultant of a system of concurrent forces • Moment of a system of forces and couples about a point • Reactions of different support conditions • Free-body diagram of different structures • Equations of equilibrium • Analysis of trusses • Analysis of Beams
Offered:	• Fall
Faculty assigned:	• Prof. Khaled M. El-Sawy

ARCH 351	**Structure in Architecture 2**	**3 credits**
Prerequisites:	• ARCH 350	
Course Description:	The course focuses on the calculations of loads on floor beams, and stresses in different structural elements. It also introduces mechanics of steel and reinforced concrete materials, and structural design process of steel and reinforced concrete beams.	
Course Goals & Objectives:	The objectives of this course are to enable the student to: • Calculate the loads on beams of a typical floor • Identify the mechanics of steel and reinforced concrete materials • Calculate stresses in the different structural elements (beams and truss members) • Design steel or reinforced concrete statically determinate beams	
Course intended Learning Outcomes:	***Knowledge*** • Recognize basics for the calculations of centroid, moment of inertia, stresses ***ARCH-K3 (Assignment 02)*** • Recognize basics for design of steel and reinforced concrete beams ***ARCH-K3 (B.9) (Assignment 04)*** ***Cognitive skills*** • Calculate properties of composite plane areas (Centroid & Moment of Inertia) ***ARCH-C3 (B.9) (Assignment 02, Quiz 1, Midterm Exam)*** • Calculate normal stress in bars due to axial loads, bending moment, and their combination ***ARCH-C2 (B.9) (Assignment 04, Quiz 2, Final-Q1)*** • Calculate of loads on floor beams ***ARCH-C3 (B.9) (Assignments, Final-Q3)*** • Design steel and reinforced concrete beams ***ARCH-C2 (B.9) (Assignment 04, Final-Q1,***	

	Final-Q4) ***Interpersonal skills*** • Demonstrate ability to work in a team to solve a structural problem ***ARCH-IR1 (Assignments)*** ***Communication , IT , and Numerical skills*** • Demonstrate ability to use different tools to communicate effectively in written and/or graphical formats ***ARCH-CT1 (Assignments, Quizzes, Midterm Exam, Final Exam)*** • Use techniques, skills, and modern engineering tools to solve structural problems ***ARCH-CT2 (Assignments, Quizzes, Midterm Exam, Final Exam)*** ***Psychomotor skills*** • N.A.
Student Performance Criterion addressed:	• **B.9. Structural Systems:** Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Gere, J.M., and Goodno, B.J., Mechanics of Materials (2013), Cengage Learning, 8th Edition (ISBN-13: 978-1111577735, ISBN-10: 1111577730) • Allen, J.H., Mechanics of Materials For Dummies (2011), Wiley Publishing, 1st Edition (ISBN-13: 978-0470942734, ISBN-10: 0470942738) • Beer, F.P., Johnston Jr., E.R., DeWolf, J.T and Mazurek, D.F., Mechanics of Materials (2015), McGraw-Hill Publishing ,7th Edition (ISBN-13: 978-0073398235, ISBN-10: 0073398233) • Hibbler, R.C., Mechanics of Materials (2017), Prentice Hall, 10th Edition (ISBN-13: 978-0134319650, ISBN-10: 0134319656) • Wight, J.K., Reinforced Concrete : Mechanics and Design (2016), Prentice Hall, 7th edition (ISBN13: 978-0133485967, ISBN10: 013348596X) ***References from Effat Library:*** • Onouye, Barry, Statics and strength of materials for architecture and building construction, Pearson Prentice Hall, 2007, 3rd Ed (ISBN: 0131185837) • McCormac, J.C. and Nelson, J.K., Design of reinforced concrete, John Wiley, 2006, 7th ed (ISBN: 9780471761327) ***References from Effat Digital Library:*** • Russell C. Hibbeler, Statics and Mechanics of Materials in SI Units, Pearson Education Limited, 2017, 5th edition (ISBN: 978-1-292-17791-5) • McCormac, J.C. and Nelson, J.K., Design of reinforced concrete, Wiley Etextbooks, 2015 (ISBN: 978-1-118-87910-8) ***Recommended Texts:*** • McCormac, Jack C. and, Russell H. Brown, Design of Reinforced Concrete. Wiley, 2013 • Reynolds, Charles E., James C. Steedman, and Anthony J. Threlfall, Reinforced Concrete Designer's Handbook, 11th ed. Taylor & Francis, 2008 ***Recommended Articles:*** • Philpot, T. A., Hubing, N., Hall, R. H., Flori, R., Oglesby, D. B., & Yellamraju, V. (2003b). Games as Teaching Tools in Engineering Mechanics Courses. Proceedings of the American Society of Engineering Education, https://peer.asee.org/games-as-teaching-tools-in-engineering-mechanics-courses.pdf • Philpot, T. A., Flori, R., Hall, R. H., Hubing, N., Oglesby, D. B., & Yellamraju, V. (2002). Interactive learning Tools: Animating mechanics of materials. Proceedings of American Society for Engineering Education Conference, http://litelab.org/publications/asee_2002_philpot_interact.pdf

Topical Outline:	• Centroid of composite plane areas • Moment of inertia of composite plane areas • Mechanics of elastic materials and stress vs. strain • Normal stress and strain in bars due to axial loads only • Normal stress in beams due to bending moment only • Normal stress in frames due to axial force and bending moment • Material failure and allowable stress design method • Loads on floor beams • Design of steel beams • Design of reinforced concrete beams
Offered:	• Spring
Faculty assigned:	• Prof. Khaled M. El-Sawy

ARCH 352	**Building Structures and Materials**	**3 credits**
Prerequisites:	• ARCH 252	
Course Description:	In this course, the students will learn the analytical behavior of advanced structural systems such as large pavilion spans, Space frames, thin shell structure and domes in terms of statically function and spatial characteristics in non- mathematical terms. The approaches to structure and the effects of materials, geometry and construction techniques are integrated into the course content. The course will also cover systems of circulation and fenestration.	
Course Goals & Objectives:	• Define different types of structure materials. • Define types of roofs. • Distinguish types of construction techniques. • Identify types of material used in roof structure. • Identify types of material used in wall and floor structure. • Distinguish types of forms used in construction.	
Course intended Learning Outcomes:	*Knowledge* • Define construction terminologies. *ARCH-K1/CLO1. (A.8*) (*Assignment 1, Midterm exam - Final exam*) • Define structural systems and types. *ARCH-K1/CLO2. (A.8*) (*Assignment 1, Midterm exam - Final exam*) • Define materials specification for construction and finishing. *ARCH-K3/CLO3. (B.10*) (*Quiz 1, Midterm exam - Final exam*) *Cognitive skills* • Describe the sequence of structural activities on the site. *ARCH-C1/CLO4. (B.9) (Assignment 2)* • Identify different concrete types of structures & materials. *ARCH-C3/CLO5. (B.12) (Quiz 1, Midterm exam , Final exam)* • Distinguish types of flooring systems, and types of wall systems and its patterns. *ARCH-C3/CLO6. (B.9) (Quiz 2, Assignment 2, Final exam)* • Differentiate methods, techniques, and materials used in the construction site. *ARCH-C4/CLO7. (B.12) (Quiz 2, Assignment 2, Midterm exam , Final Project, Final exam)* *Interpersonal skills* • Sketch details for wall section, flooring section and roofs section. *ARCH-IR1/CLO8. (A.4) (Quiz 2 , Final exam)*	

	Communication, IT, and Numerical skills • Prepare and write reports on field trips and visits. *ARCH-CT1/CLO9. (A.4) (Final Project)* *Psychomotor skills* • NA
Student Performance Criterion addressed:	• A. 4. Technical Documentation: Ability to apply the basic principles of life-safety systems with an emphasis on egress. • A.8. Ordering Systems Skills: Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems. • B.9. Structural Systems: Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems. • B.10. Building Envelope Systems: Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems. • B.12. Building Materials and Assemblies: Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems.
Textbooks/Learning Resources:	*Prescribed Textbooks:* • Cameron K. Andres & R. C. Smith. Principles & Practices of Commercial Construction (8th Edition), Prentice Hall (2009) ISBN 10: 0131599232/ ISBN 13: 9780131599239. • Medan Mehta, Walter Scarborough & Diane Armpriest. Building Construction: Principles, Materials, & Systems, 2nd Ed. Prentice-Hall (2013). ISBN-13: 978-0132148696 / ISBN-10: 0132148692. *References from Effat Library:* • Francis D.K. Ching. Building Construction Illustrated (5th Edition), by John Wiley & Sons (2014). ISBN-13: 978-1118458341 / ISBN-10: 1118458346. • Medan Mehta, Walter Scarborough & Diane Armpriest. Building construction: principles, materials, and systems, (2010). Effat Library Ref. (TH146 .M43 2010). *References from Effat Digital Library:* • Francis D.K. Ching. Building Construction Illustrated (5th Edition), by John Wiley & Sons (2014). ISBN-13: 978-1118458341 / ISBN-10: 1118458346. • Setareh, M., &Darvas, R.,M., Concrete Structures,(2006), Prentice Hall, ISBN-10: 0131988271. • Nawy , E., G., Pre-stressed Concrete: A Fundamental Approach ,(2005), Prentice Hall; 5TH edition , ISBN- 10: 0131497596. *Recommended Texts:* • Setareh, M., &Darvas, R.,M., Concrete Structures,(2006), Prentice Hall, ISBN-10: 0131988271. • Nawy , E., G., Pre-stressed Concrete: A Fundamental Approach ,(2005), Prentice Hall; 5TH edition , ISBN- 10: 0131497596. • Onouye, B.,S., &Kane,K., Statics and Strength of Materials for Architecture & Building Construction, (2006), Prentice Hall; 3rd edition, ISBN-10: 0131185837. *Recommended Articles:*

	• M., Ozel, Environmental analysis of two building material alternatives in structures with the aim of sustainable construction, Clean Technologies and Environmental Policy, Springer Berlin Heidelberg, Vol. 17. P. 75 – 83, January, 2015. • V., Bolshakov; L., Dvorkin Structure and Properties of Building Materials, Foundations of Materials Science and Engineering, Trans Tech Publications Ltd, Vol 91, April 2016.
Topical Outline:	• Understand foundation types and load paths. • Identify types of curtain walls. • Define precast concrete walls . • Recognize Brick, timber, concrete, and steel construction Materials properties. • Differentiate types of forms used in construction. • Identify types of Horizontal structure systems. • Identify types of Vertical structure systems. • Identify types of sub structure retaining walls. • Identify types of thermal and moisture insulation materials. • Differentiate between various roof layers.
Offered:	• Fall
Faculty assigned:	• Prof. Dr. Khaled Elsawy, Dr. Mamdouh Aljundi & Dr. Ahmad Waseef

ARCH 407	**Architecture Design Studio-7**	**6 credits**
Prerequisites:	• ARCH 306 - ARCH 351 - Good Standing	
Course Description:	This course aims to train students in the applications and development of more complex architectural design tasks. They will deal with: design studies preparation (search and data collection, data analysis, problem definition, preparation of architectural programs and listing of alternatives); building codes and regulations; and economic considerations in building design. The course also deals with technical issues such as building structural systems, building mechanical systems (HVAC), vertical and horizontal circulation.	
Course Goals & Objectives:	• To produce innovative design ideas and concepts that are reliable and professional • To enhance problem solving methods for large size and complex architectural projects • To be able to produce architectural forms and plans that express professional capability • To express and present an understanding of the qualities of architectural structures and materials • To develop professional attitude and teamwork spirit. • To master techniques of different computer software. • To be able to solve complex horizontal & vertical circulations within a complex architectural project.	
Course intended Learning Outcomes:	***Knowledge*** • Investigate the variety of people, contexts and conditions associated with the urban environment as the context for design. ***ARCH-K1/CLO1, (A.11) (Assignment 1 and 2)*** • Describe different aspects of design, including legal, social, ethical and cultural factors of local community. ***ARCH-K2/CLO2, (C.9) (Midterm)*** ***Cognitive skills*** • Evaluate relevant information of the main function of the project considering the interaction between humans and their environment. ***ARCH-C1/CLO3, (B.1) (One Day Project)*** • Apply one of the new trends in architecture ***ARCH-C2/CLO4 (Assignment 3_part #01)*** • Select and apply appropriate structural systems to support different types of spaces within the project. ***ARCH-C2/CLO5, (B.5, B.9) (Assignment 3_part 01 and 02)***	

	Interpersonal skills • Demonstrate responsibility of conducting an architectural project with respect to environmental aspects. ***ARCH-IR1/CLO6. C.6. (Final Jury)*** ***Communication, IT, and Numerical skills*** • Present their projects in front of Jury (external or internal) as well as how to defend it to enhance their communication skills. ***ARCH-CNIT1/CLO7, (Pre-Jury)*** ***Psychomotor skills*** • Produce professional sketches and technical drawings, and prepare advanced models illustrating design ideas. ***ARCH-P1/CLO8 (Final Exam – Final Project)***
Student Performance Criterion addressed:	• **A.11. Applied Research:** Understanding the role of applied research in determining function, form, and systems and their impact on human conditions and behaviour. • **B.1 Pre-Design:** Ability to prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria. • **B.5. Life Safety:** Ability to apply the basic principles of life-safety systems with an emphasis on egress. • **B.9. Structural Systems:** Understanding of the basic principles of structural behaviour in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems. • **C.6. Leadership:** Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities. • **C.9. Community and Social Responsibility:** Understanding of the architect's responsibility to work in the public interest and to improve the quality of life for local and global neighbors.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Ford, E., The Details of Modern Architecture :Volume 1, (1990), The MIT Press, ISBN-10: 026206121X. ***References from Effat Library:*** • Ford, E., The Details of Modern Architecture: Volume 2: 1928 to 1988, (2003), The MIT Press, ISBN-10: 0262562022 ***Recommended Texts:*** • Karlen, M., Space Planning Basics, (2009). John Wiley & Sons, Inc. 3rd edition. ISBN 978-0470231784 ***Recommended Articles:*** • Zevi, B., Architecture as Space, How to Look at Architecture,(1993), Da Capo Press; Revised edition.ISBN-10: 0306805375.
Topical Outline:	• Term Project and Introductory lectures • Research, case study Analysis • Site analysis, Functional Program and conceptual analysis • Plans Development (accessibility and safety measures • Structural and façade system • Sustainability and technical details • External Envelope and architecture detailing • Drawing and Representation

Offered:	• Fall
Faculty assigned:	• Dr.Aida Nayer, Dr.Rasha Moussa, Dr. Tarek Abdel Salam.

ARCH 408	**Architecture Design Studio-8**	**6 credits**
Prerequisites:	• ARCH 407 - ARCH 455 - Good Standing	
Course Description:	This is an advanced studio in special projects examining particular architectural determinants, and in architectural research. This course is a comprehensive architectural design studio. It emphasizes the wide-ranging integration of building systems within an ordered design concept and understanding and using the unique qualities of materials, construction technology, and assembly details in the expression of architectural ideas. Analysis includes economic considerations in building design, the planning and integration of structural systems, building service systems, and building envelope design as an appropriate architectural expression adopting the Whole Building Design approach.	
Course Goals & Objectives:	• Produce innovative design ideas and concepts that are reliable and professional, • Enhance problem solving methods for large size and complex architectural projects, • Produce architectural forms and plans that express professional capability, • Express and present an understanding of the qualities of architectural structures and materials, • Develop professional attitude and team work spirit, • Solve complex horizontal & vertical circulations within a complex architectural project, • Master techniques of various computer software.	
Course intended Learning Outcomes:	***Knowledge*** • Define and identify terminologies related to the design of a specialized building types. ***ARCH-K1/CLO1 (A.10). (Research Work)*** • Demonstrate different aspects of design, including legal, social, ethical and cultural factors of local community. ***ARCH-K3/CLO2 (C.7, C.8,C.9) (Final Project, Assignment, 1 and 2, and Developed Design Phase)*** ***Cognitive skills*** • Perceive clearly the main requirements of the project based on the various aspects of interaction between humans and their environment. ***ARCH-C1/CLO3 (A.5) (Assignment 3, and 4)*** • Solve comprehensive design problems within a medium size architectural project. ***ARCH-C2/CLO4 (A.2) (Developed Design assignment)*** • Select and apply appropriate structural systems to support different types of spaces within the project. ***ARCH-C3/CLO5 (B.9) (Schematic Design assignment)*** ***Interpersonal skills*** • Demonstrate personal and professional responsibility towards the needs of the client, owner, users groups and community domains considering the legal, social and ethical aspects of design. ***ARCH-IR1/CLO6 (A.11) (Developed Design assignment)*** • Act responsively to conduct a professional project responding to social, political and cultural aspects of local community ***ARCH-IR1 /CLO7 (B.6) (Final Project)*** • Illustrate a deep sense of leadership to the culture and a sustainable community ***ARCH-IR1/CLO8 (C.6) (Research Work)*** ***Communication , IT , and Numerical skills***	

	• Evaluate their ideas, solutions and drawings through interactive discussion and criticism with both the instructor and the students. ***ARCH-CT1/CLO9 (A.4) (Assignment, 1, 2, 3, and 4, schematic and Developed Design Phases)*** ***Psychomotor skills*** • Produce professional sketches and technical drawings, and prepare advanced models illustrating design ideas. ***ARCH-P1/CLO10 (A.4) (Mid-term and Final exams and Final Project submission***)
Student Performance Criterion addressed:	• **A. 4. Technical Documentation: Ability** to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design. • **B. 3. Sustainability:** Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency. • **B. 6. Comprehensive Design**: Ability to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • The architects' studio companion: Rule of thumb for preliminary design, by Joseph Lano, 2012, Published by: John Wiley & Sons, Inc. 5th ed. ISBN 978-0-470-64191-0 (cloth); ISBN 978-1-118-09797-7 (ebk); • Architectural Design and Regulation / by Imrie, Robert, 2011, ISBN:9781405179669, Wiley-Blackwell, (Chichester, West Sussex, UK ; | Ames, Iowa, USA :) • Guide to Long-Span Concrete Floors, Cement and Concrete Association of Australia, 2003, 2nd ed. ISBN 1-877023-09-4 ***References from Effat Library:*** • Analysing Architecture, by Simon Unwin, 4th ed. Routledge, Taylor &Francis Group, London and New York, 2014, ISBN-13: 978-0415719162, ISBN-10: 041571916X • Doorway by Simon Unwin (2008) Paperback –by Simon Unwin, Publisher: Routledge, ASIN: B01FIZXO54 ***References from Effat Digital Library:*** • Biophilic Design: The Theory, Science and Practice of Bringing Buildings to Life 2008, by Kellert SR, Heerwagen J, and Mador M, ISBN-13: 978-0470163344, ISBN-10: 0470163348 ***Recommended Texts:*** • Designing with Models: A Studio Guide to Architectural Process Models 3rd Edition (2012), by Criss B. MillsISBN-13: 978-0470498859, ISBN-10: 0470498854 • Green Architecture: Design for a Sustainable Future Paperback – by Brenda, Vale, and Robert Vale, Publisher: Thames & Hudson Ltd (1996), ISBN-10: 0500278830, ISBN-13: 9780500278833 • Detail in Contemporary Concrete Architecture Hardcover , 2012, by David Phillips, Megumi Yamashita, Publisher: Laurence King Publishing; Har/Cdr edition, (2012), ISBN-10: 1780670095, ISBN-13: 978-1780670096 ***Recommended Articles:*** • Architectural Science Review, The University of Sydney, ISSN 0003 8628, • Building Design + Construction magazine, inspiring the building team, www.BDCuniversity.com, Scranton Gillette Corp. • ICC, IBC 2009 – International Building Code. • ADA, American Disability Acting ***List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)*** • www.arch.usyd.edu.au/asr

	• www.BDCuniversity.com • https://blackboard.effatuniversity.edu.sa • http://free-d.nl/filter/byShape
Topical Outline:	• Modular Massing and Composition • Conceptual Analysis • Structure consideration in Design • Material assembly • Façade systems • Environmental Consideration in design • Electromechanical consideration in design • Life safety package • Drawing and Representation
Offered:	• Spring
Faculty assigned:	• Dr. Mady Mohamed, Dr. Haitham Hussein, Dr. Tarek Abdelsalam, Dr. Alaa Abdu, Dr. Hossam Elsamaty, Dr. Marwa Abdelkader

ARCH 444	**Housing and Economics**	**3 credits**
Prerequisites:	• ARCH 342	
Course Description:	Through lectures, assignments and case studies, this course identifies, describes and analyzes the important principles of housing concepts and terminologies, approaches and aspects of sustainable infrastructure. By applying all theoretical aspects in lectures into a project as optimal problem solving that considers environmental, socio-cultural, physiological and financial dimensions of design decisions at limited scale for a small neighborhood, the course material is presented under five broad themes such related to affordable housing, healthful housing, model neighborhood, site planning, the model neighborhood concept, is identified and discussed as a complementary but often overlooked component of the project as a part of design thinking.	
Course Goals & Objectives:	• Identify and describe the significant concepts of housing design concepts. • Recognize knowledge about housing terminologies such as affordable housing, healthful housing, and its relation to our essential human needs • Memorize a relevant vocabulary to be able to research in this area of knowledge to recognize the importance of this area of human activities as part of influence of her architecture work • Conduct a minor research that shows the student's interpersonal skills and enhance ability of presentation techniques. • Demonstrate a sense of responsibility & awareness of due dates, and to enhance her self-confidences and responsibility.	
Course intended Learning Outcomes:	***Knowledge*** • Define the main terminologies common to the field of housing, healthful housing, affordable housing, self-help housing ***ARCH-K1/CLO1 (B.7) (Med – term exam – Quiz2)*** • Recognize the multiple aspects of architecture such as social, cultural and environmental ***ARCH-K3/CLO2 (Final exam)*** ***Cognitive skills*** • Analyse the interaction between humans and their environment to produce affordable healthy neighbourhoods. **ARCH-C1/CLO3** ***(C.3)*** **(*Term Project – Assignment # 1)*** • Examine and evaluate projects that optimize, conserve and reuse resources to reduce the human impact on nature. **ARCH-C2/CLO4)** ***(C.3)*** **(*Assignment # 2)***	

	Interpersonal skills • Demonstrate a sense of responsibility to the culture and healthful neighbourhoods & community by promoting environmental awareness to improve the overall quality of life on Earth. **ARCH-IR1/CLO5 (*Term Project – Quiz # 1)*** • Conduct both individual and group research, on a subject of their own selection. **ARCH-IR2/CLO6) *(C.7)* (*Assignment # 2 & # 3)*** ***Communication, IT, and Numerical skills*** • Demonstrate the ability to communicate effectively in oral and written forms. **ARCH-CT1/CLO7) (*Term Project – Assignment # 2)*** ***Psychomotor skills*** • N/A
Student Performance Criterion addressed:	**B.7 Financial Considerations:** Understanding of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting. **C.3 Client Role in Architecture:** Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains. **C.7 Legal Responsibilities:** Understanding of the architect's responsibility to the public and the client as determined by local or national ordinances or laws regarding: registration or licensure, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and preservation and accessibility laws.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Instructor power point presentation • Norris, M. (Ed.). (2014). Social Housing, Disadvantage, and Neighbourhood Liveability. New York: Routledge. • Davis, S., The Architecture of Affordable Housing, (1995), University of California Press. ISBN-10: 0520208854 ***References from Effat Library:*** • Davis, S., The Architecture of Affordable Housing , (1995),University of California Press ISBN-10: 0520208854 • Affordable and social housing : , policy and practice, Paul Reeves, ISBN-10: 0415628563, Pages: 253 , Date : 2014 ***References from Effat Digital Library:*** • Green Affordable Housing, by Burlinghouse, Gerald N Nova Science Publishers, 2009 - Ecological houses - 139 pages ISBN-10: 1606928317. ***Recommended Articles:*** • Rethinking affordable housing policy, by Mallach, Alan. Journal of Affordable Housing & Community Development Law, 01/2011, Volume 20, Issue 2 • Homelessness and the crisis of affordable housing: the abandonment of a federal affordable housing policy by Clark, Alfred M., III ***Recommended Texts:*** • King, Peter (2015). The Principles of Housing, Routledge ISBN-10: 9781138939424

Topical Outline:	• Introduction and terminology of housing, • concept of housing • The birth of the neighborhood • Site planning principles • site planning analyses and development • Housing typology, • housing standards • Examples of infra-structure of housing • Housing policies • Finance and management • Housing program in Saudia Arabia • Traditional house of Saudi Arabia and the relationship to the city • Self-help housing
Offered:	• Fall
Faculty assigned:	• Dr. Kholoud Moumni, Dr. Ahmed Refaat, Dr. Hossam Al-Samaty

ARCH 446	**Comparative Architectural Thoughts**	**3 credits**
Prerequisites:	• ARCH 341	
Course Description:	Building on concepts taught in ARCH 341, this course concentrates on a more detailed comparative study of different worldwide architectural thoughts. It discusses the concepts and concerns that formulate the pillars of shaping and composing the built environment. The many issues of varieties and differences in values and concerns of various regions in terms of social, economic and natural conditions will be discussed The course covers the period of architectural evolution from the industrial revolution until the beginning of the 21st century.	
Course Goals & Objectives:	The study of this course will enable the student to: • Increase knowledge about conceptual architecture and its position between all themes and thoughts. • Build up a vocabulary that help them analyse different thoughts and philosophies. • Be knowledgeable of the common definitions and terminologies in the field of architecture. • Be able to address their themes of interest as well as relating buildings and projects to these themes.	
Course intended Learning Outcomes:	***Knowledge*** • Recognize buildings' historical and cultural context. ***ARCH-K3/ILO1 (A.9) (Assignment 1)*** ***Cognitive skills*** • Evaluate the most recent architectural approaches and tendencies that express the spirit of the age. ***ARCH-C1 / ILO2 (A.10) (Assignment 2)*** • Analyze and recognize the vocabulary of different architectural styles. ***ARCH-C2 / ILO3 (A.10) (Assignment 3)*** ***Interpersonal skills*** • Evaluate the student's ability and responsibility of conducting an individual research and submitting a conclusive report. ***ARCH-IR2 / ILO4 (A.5, C.9) (Midterm research – F.R. Developments - Final research)*** ***Communication , IT , and Numeral skills***	

	• Demonstrate students' communication skills. ***ARCH-CT1 / ILO5 (A.1) (Class Discussion - Midterm research presentation - Final research presentation)*** ***<u>Psychomotor skills</u>*** • N.A.
Student Performance Criterion addressed:	• **A.1. Communication Skills:** Ability to read, write, speak and listen effectively • **A.5. Investigative Skills:** Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes. • **A.9. Historical Traditions and Global Culture:** Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors. • **A.10. Cultural Diversity:** Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.
Textbooks/Learning Resources:	***<u>Prescribed Textbooks:</u>*** • Brownell, Blaine, and Swackhamer, Marc, (eds.), Hypernatural: Architecture's New Relationship with Nature ARCHitecture Briefs), (2015), Princeton Architectural Press, New York. ISBN-10: 1616892722, ISBN-13: 978-1616892722 • Chin, Francis D. K., Architecture: Form, Space, and Order, (2014), Wiley; 4th edition. ISBN-10: 1118745086, ISBN-13: 978-1118745083 • Ferriss, Hugh, The Metropolis of Tomorrow, (2005), Dover Publications. • ISBN-10: 0486437272, ISBN-13: 978-0486437279 • Giedion, Sigfried, Space, Time and Architecture: the Growth of a New Tradition, (2009), Harvard University Press; Revised edition. ISBN-10: 0674030478, ISBN-13: 978-0674030473 • Gossel, Petert & Leuthauser, G. Architecture in the 20th Century, (2001), Taschen. ISBN-10: 3822811629, ISBN-13: 978-3822811627 • Interactive Architecture: Adaptive World ARCHitecture Briefs), (2016) • Fox, Michael, (ed.), Princeton Architectural Press. ISBN-10: 1616894067, ISBN-13: 978-1616894061 • Jenks, Charles, The new paradigm in Architecture, The New Langauge of Postmodernism, (2002), Yale University Press; 7th edition. ISBN-10: 0300095120, ISBN-13: 978-0300095128 • Norberg-Schulz, Christian, Architecture: Presence, Language and Place, (2000), Skira. ISBN-10: 8881187000 • Simitch, Andrea and Warke, Val, The Language of Architecture: 26 Principles Every Architect Should Know, (2014), Rockport Publishers. ISBN-10: 1592538584, ISBN-13: 978-1592538584 ***<u>References from Effat Library:</u>*** • Kellert, Stephen R; Heerwagen, Judith; Mador, Martin, Biophilic design: the theory, science, and practice of bringing buildings to life (2008). Wiley, Place:Hoboken, N.J. ***<u>References from Effat Digital Library:</u>*** • Gough, Tim, Reception Theory of Architecture: Its Pre-History and Afterlife. Architectural Theory Review. Dec 2013, Vol. 18 Issue 3, p279-292. 14p. ***<u>Recommended Texts:</u>***

	• Fortmeyer, Russell, and Linn,, Charles, Kinetic Architecture: Designs for Active Envelopes, (2014), Images Publishing Group. • Gramazio, Fabio, and Kohler, Matthias (eds.), Made by Robots: Challenging Architecture at a Larger Scale ARCHitectural Design), (2014), Academy Press; 1 edition. ISBN-10: 1118535480, ISBN-13: 978-1118535486 • Jabi, Wassim, Parametric, Parametric Design for Architecture, (2013), Laurence King Publishing. ISBN-10: 1780673140, ISBN-13: 978-1780673141, ISBN-10: 1864704950, ISBN-13: 978-1864704952 • Lampugnani, V. M., Encyclopaedia of 20th Century Architecture, (2004), Fitzroy Dearborn Publishers. ISBN-10: 1579584349, ISBN-13: 978-1579584344 • Schumacher, Patrik, Parametricism 2.0: Rethinking Architecture's Agenda for the 21st Century AD ARCHitectural Design), (2016), Academy Press; 1 edition. ISBN-10: 1118736168, ISBN-13: 978-1118736166 • Trachtenberg, M., Hyman, I., Architecture, from Prehistory to Post modernity, (2003), Prentice Hall; 2nd edition. ISBN-10: 0131833650. ***Recommended Articles:*** • Brisibe, Warebi G. & Ferdinand Daminabo, TOWARDS UNDERSTANDING ARCHITECTURAL THEORY: A REVIEW ON 'READING' ARCHITECTURE. International Journal of Academic Research and Reflection, Vol. 4, No. 3, 2016. http://www.idpublications.org/wp-content/uploads/2016/03/Full-Paper-TOWARDS-UUNDERSTANDING-ARCHITECTURAL-THEORY.pdf • Verma, Neena, Insecurity in architecture. Arq : Architectural Research Quarterly; Cambridge18.2 (Jun 2014) 106-109. https://search.proquest.com/docview/1559177704?pq-origsite=summon
Topical Outline:	• Architectural movements, approaches and tendencies • Architecture as an Outcome of Process • Architecture as a Manifestation of Context (History of Place and Time) • Creativity & Originality in Architecture • Architecture as an Organism • Religious Architecture (Faith & Form) • Architecture and Language (Expression & communication) • The Architecture of Politics and Post-war • Architecture and the Machine Aesthetic • Parametric Architecture approach • Virtual Reality in Architecture • Futuristic Architecture
Offered:	• Fall
Faculty assigned:	• Dr. Abdel-moniem El-Shorbagy

ARCH 453	**Energy and Design**	**3credits**
Prerequisites:	• ARCH 453	
Course Description:	This is an introductory course, which discusses main energy sources (solar, thermal, and wind). The course will expose the student to basics in heat transfer and the thermal properties of the building envelope. It includes the study of the basics of human thermal comfort, analysis of climatic factors and their effects on architectural design. In addition, the course includes the study of building form and the thermal properties of building material and their effect on building thermal performance and building energy requirement.	

Course Goals & Objectives:	• Appreciate why improved designs and operation of building systems are important to our society. • Acquire an overview of the knowledge and skills necessary to design and operate healthier, more comfortable, more productive, and less environmentally destructive buildings. • Improve their ability to solve engineering problems through the application of economic, heat transfer, fluid mechanic, and thermodynamic principles and the use of computers. • Learn about sustainable design principles relating to Building Performance Analysis.
Course intended Learning Outcomes:	***Knowledge*** • Define the terminologies common to the field of architecture. ***ARCH-K1/CLO1 (Q1 of the Final Exam and Quiz-1, Design Sustainable building-1)*** • Describe the importance of architecture as an area of human activities, both in the past and contemporary times. ***ARCH-K2/CLO2 (B.3) (Q2 of the Final Exam, and Quiz-1)*** • Recognize the various theoretical, historical, social, cultural, environmental and technological aspects of architecture. ***ARCH-K3/CLO3 (B.8) (Q7 of the Final Exam, Assignment-2, Mid-term project and the Final Project)*** ***Cognitive skills*** • Analyse the various aspects of interactions between humans and their environment both from architecture and urban design point of view to produce sustainable healthy societies. ***ARCH-C1/CLO4 (B.3, B.8) (Q3 of the Final Exam, Mid-term project and the final Project)*** • Apply fundamental principles and techniques of problem solving in architecture design. ***ARCH-C2/CLO5 (B.3, B.10) (Q4 of the Final Exam, Design Sustainable Building-3, Final Project, Advanced Research)*** • Use appropriate CAAD/BIMEnergy Analysis tools in architecture design. ***ARCH-C3/CLO5 (B.10) (Assignment-1, Final Project, Design Sustainable Building-3, Final Project)*** ***Interpersonal skills*** • Display a deep sense of leadership and responsibility to the culture and a sustainable community. ***ARCH-IR1/CLO6 (B.3) (Q5 of the Final Exam, Advanced Research, Final Project)*** • Developing the student's ability and responsibility of conducting an individual research, submitting a project report and producing design drawings. ***ARCH-IR2/CLO7 (B.3) (Advanced Research, Final project pre-submission1, Final project-Pre-submission2, Final Project)*** ***Communication , IT , and Numerical skills*** • Communicate effectively in oral and written forms, including the creation of appropriate technical documentation. ***ARCH-CT1/CLO8 (B.3) (Design sustainable Building-2, and Quiz-2)*** • Apply mathematics effectively during calculations of architecture designs. ***ARCH-CT2/CLO9 (B.10) (Design Sustainable building-1, and Quiz-2)*** ***Psychomotor skills*** • Produce professional sketches and technical drawings, and prepare advanced models illustrating design ideas. ***ARCH-P1/CLO10 (B.10) (Design Sustainable Building-3, Mid-term project, Final project-Pre-submission2, Assignment-1_Advanced Research)***

Student Performance Criterion addressed:	• **B. 3. Sustainability:** Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency. • **B. 8. Environmental Systems:** Understanding the principles of environmental systems' design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, day lighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools. • **B. 10. Building Envelope Systems:** Understanding of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Sun, Wind & Light: Architectural Design Strategies, G. Z. Brown and Mark DeKay, 3D edition, ISBN-13: 978-0470945780, ISBN-10: 0470945788, 2014. ***References from Effat Library:*** • Carbon-neutral architectural design / by La Roche, Pablo,: Boca Raton, FL : CRC Press, 2012 . xvi, 328 p. : 25 cm: 2012, Effat Library [NA2542.36 .L3 2012], ***References from Effat Digital Library:*** • Building Green, New Edition: A Complete How-To Guide to Alternative Building Methods Earth Plaster * Straw Bale * Cordwood * Cob * Living Roofs (Building Green: A Complete How-To Guide to Alternative), (2009), by Clarke Snell, and Tim Callahan, Publisher: Lark Crafts; 2 Ill edition, ISBN-10: 1600595340, ISBN-13: 978-1600595349; • Environmental Design: An Introduction for Architects and Engineers 3rd Edition, by Randall Thomas, (2006) ISBN-13: 978-0415363341, ISBN-10: 0415363349; ***Recommended Texts:*** • Sun/Earth: Alternative Energy Design for Architecture, Richard L. Crawther, ISBN-10: 0442214987, ISBN-13: 978-0442214982, (1983) • Introduction to Architectural Science, Steven V. Szokolay, 3rd ed. ISBN-13: 978-0415824989, ISBN-10: 0415824982. • Architecture in a Climate of Change, Peter F. Smith, 2nd ed. ISBN-13: 978-1597267205, ISBN-10: 1597267201 • Environmental Science in Building (Building & Surveying Series), 2012, by Randall McMullan, Palgrave Macmillan; 7th ed. ISBN-10: 0230290809, ISBN-13: 978-0230290808 ***Recommended Articles:*** • Frontczak, M., Schiavon, S., Goins, J., Arens, E., Zhang, H., & Wargocki, P. (2012). Quantitative relationships between occupant satisfaction and satisfaction aspects of indoor environmental quality and building design. Indoor Air, 22(2), 119-131. doi:10.1111/j.1600-0668.2011.00745.x • Montoya, M. (2011). Green building fundamentals: Practical guide to understanding and applying fundamental sustainable construction practices and the LEED system (2nd ed.). Upper Saddle River, N.J: Prentice Hall. **List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)** • www.arch.usyd.edu.au/asr • www.BDCuniversity.com • https://blackboard.effatuniversity.edu.sa • http://free-d.nl/filter/byShape **Other learning material such as computer-based programs/CD, professional standards or regulations and software.**

	• ASHRAE standards • CIBSI Standards • Autodesk Ecotect software • Weather Tool, Psychrometric Chart, Solar Tool
Topical Outline:	• Definitions and scope of Environmental design • Understanding Climate Data • Understanding the relationship between Earth and Sun • Hands On Drawing Sun Light (Heliodon/ Ecotect/Revit) • Designing shading devices-manual • Introduction to Performance investigation and Environmental Software • Heat Flow and thermal mass • Building Envelope and Opening Design • Building Simulation and Introduction to Ecotect • Passive Design strategies and measures-Ventilation • Passive Design strategies and measures-Thermal • Solar Analysis • Urban Heat Island and General Topics • Introduction To Green Rating Systems • Daylight And Calculating Daylight Factor • Renewable Energy Sources
Offered:	• Spring
Faculty assigned:	• Dr. Mady Mohamed

ARCH 454	**Mechanical, Electrical and Life safety systems**	**3 credits**
Prerequisites:	• ARCH 252	
Course Description:	The study of this course will enable the student to have a basic understanding of and enable him to effectively demonstrate entry level skills in the following fields: • Electrical systems furnish light and heat for a building s occupants, and power to run its devices and equipment. • (HVAC) Systems heating, ventilating, and air conditioning systems providing the interior spaces of a building of the environmental comfort of the occupants. • Plumbing Systems: including Potable water supply which is essential for human consumption and sanitation. And the efficient disposal of fluid waste and organic matter which is necessary in order to maintain sanitary conditions within a building and in the surrounding area. • Mechanical systems: Vertical circulation systems (elevators – escalators) • Fire detection and alarm systems	
Course Goals & Objectives:	The study of this course will enable the student to: • Understand Electrical systems in buildings, furnish lighting fixtures, and power outlets to run its devices and equipment. • Identify the adequate illumination level for different spaces and calculate the number of fittings and their layout to provide a good lighting design • Demonstrate (HVAC) Systems heating, ventilating, and air conditioning systems, compare between different air conditioning systems, and calculate cooling loads. • Acquire tools to provide and maintain energy management in buildings. • Recognize Fire detection and alarm system components.	

	• Demonstrate Plumbing Systems: including Potable water supply. And the efficient disposal of fluid waste and organic matter • Understand the operation and design requirements of vertical circulation systems (elevators – escalators).
Course intended Learning Outcomes:	***Knowledge*** • Outline important concepts, principles, approaches and aspects of Mechanical, Electrical, plumbing, HVAC and fire systems. ***ARCH-K1/CLO1 (B.5 & B.8 & B.11) (Midterm exam, Final exam - Regular Quizzes)*** • Recall a basic technical vocabulary and visual familiarity with symbols and conventions used in building systems. ***ARCH-K2/CLO2 (B.11) (Final exam - Regular Assignments)*** ***Cognitive skills*** • Apply fundamental principles and techniques of problem solving in systems design. ***ARCH-C1/CLO3 (B.11) (Midterm exam - Final exam)*** • Analyse of the different electrical, mechanical, plumbing and HVAC systems. ***ARCH-C2/CLO4 (B.11) (Midterm - Final exam - Regular Assignments)*** • Evaluate the efficiency and cost of the different systems. ***ARCH-C3/CLO5 (B.11) (Final exam - Regular Quizzes)*** ***Interpersonal skills*** • Demonstrate ability to develop a strong personal position in response to technical and life safety requirements. ***ARCH-IR1/ CLO6 (B.5) (Assignments - Research)*** ***Communication, IT, and Numerical skills*** • Illustrate building systems in a logical, sequential manner. ***ARCH-CT1/CLO7 (B.11) (Final exam - Assignments)*** • Demonstrate Numerical and communication skills are part of students' generic skills. ***ARCH-CT2/CLO8 (B.8 & B.11) (Midterm exam - Final exam)*** ***Psychomotor skills*** • N.A.
Student Performance Criterion addressed:	• **B. 5. Life Safety:** Ability to apply the basic principles of life-safety systems with an emphasis on egress. • **B. 8. Environmental Systems:** Ability to demonstrate the principles of environmental systems' design, how design criteria can vary by geographic region, and the tools used for performance assessment. This demonstration must include active and passive heating and cooling, solar geometry, daylighting, natural ventilation, indoor air quality, solar systems, lighting systems, and acoustics. • **B.11. Building Service Systems:** Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Norbert N., Plumbing, electricity, acoustics: sustainable design methods for architects, (2012) John Wiley & Sons. [ISBN 1118014758] • Grondzik W., Kwok A., Stein B. and Rweynolds J, Mechanical and electrical equipment for buildings, (2010) John Wiley and Sons, 11th edition [ISBN 0470195657] ***References from Effat Library:*** • Frederick J. Trost and Ifte Choudhury, Design of Mechanical and Electrical Systems in Buildings, (2004) Pearson Education, Inc. New Jersey. [ISBN 0130972355] • McMullan, R., Environmental Science in Building, (2002) Palgrave, 5th edition [ISBN 0230525369] • Mehta, Madan., (2013) Building construction : principles, materials, and systems. Pearson Education, Inc. [ISBN 0-13-214869-2]

	• Hall, F., Building Services and Equipment, Volume 2, (1994) Pearson Education. 2nd edition [ISBN 0582229685] • Hall, F., Building Services and Equipment, Volume 3, (1994) Pearson Education. 3rd edition [ISBN 0582231396] ***References from Effat Digital Library:*** • Norbert Lechner (4th Edition). Heating, Cooling, Lighting: Sustainable Design Methods for Architects. Wiley [978-1-118-58242-8] • Hall, F., Building Services and Equipment, Volume 1, (1994) Longman, 3rd edition [ISBN 0582236525] ***Recommended Texts and Articles:*** • Megri, A.C., 2009. Integration of different fire protection/life safety elements into the building design process. Practice Periodical on Structural Design and Construction, 14(4), pp.181-189. • Maluk, C., Woodrow, M. and Torero, J.L., 2017. The potential of integrating fire safety in modern building design. Fire Safety Journal, 88, pp.104-112.
Topical Outline:	• Syllabus & Course overview, • Introduction to Building Systems • Electricity Basics & Distribution • Residential Electricity & Electrical Plans • Artificial illumination & Lighting Design • Building cooling, heating and ventilation systems • Building Air conditioning systems • Cooling Size Calculation • Introduction to the research • Fire Protection and Safety Systems (Active systems) • Fire Protection and Safety Systems (Passive systems) • Water Supply Systems, Sanitary Fixtures & Drainage Systems • Plumbing Plans • Elevator systems & design considerations • Research final presentation & submission
Offered:	• Fall
Faculty assigned:	• Dr. Haitham Samir

ARCH 455	**Working Drawings**	**3 credits**
Prerequisites:	• ARCH 351	
Course Description:	This course uses all knowledge obtained from the previous architectural courses to introduce students to the practice of working drawings and technical documentation. It deals with the generation of technically clear drawings of plans elevations, sections, details, and schedules, with an emphasis on the organization and coordination necessary among the drawings. A complete set of illustrating is required for identifying the construction and assembly of materials and systems. The students learn to develop the skill of writing outline specifications and incorporate consultant information in the final set of working drawings.	
Course Goals & Objectives:	The study of this course will enable the student to: • Produce Building Construction Drawings with proper labelling and dimensioning. • Acquire tools to prepare contract drawings for construction. • Use computer aided system to produce full set of drawing constructions.	

Course intended Learning Outcomes:	***Knowledge*** • Familiarize with the different vocabulary and terminology for this subject. ***ARCH-K1/CLO1 (A.4) (Final Project)*** • Recognize the construction methods and stages ***ARCH-K2/CLO2 (A.4) (Section)*** • Produce final set of working drawings ready for the construction stage. ***ARCH-K3/CLO3 (A.4) (Final Project)*** ***Cognitive skills*** • Discuss all types of construction materials. ***ARCH-C1/CLO4 (B.12) (Research for the material)*** • Identify how to apply levels, centrelines & columns to be ready for construction ***ARCH-C2/CLO5 (B.9) (Midterm Exam _Plans Submission)*** • Locate all the legends and tags for doors, windows, finishing's, etc... of the required working drawing using standards, frames, AutoCAD ***ARCH-C3/CLO6 (A.4) (Final Project)*** ***Interpersonal skills*** • Develop the student's ability and responsibility of conducting an individual character as an Architect, submitting a project report and producing working design drawings. ***ARCH-IR1/CLO7 (A.4) (Elevation)*** • Develop the students' communication skills through the drawings ***ARCH-IR2/CLO8 (A.4) (Final Project)*** ***Communication, IT, and Numerical skills*** • Increase the students' awareness of the importance of incorporating ***ARCH-CT1/CLO9 (A.4) (Site)*** • Details in Architectural Designs as an important issue which is not separated from Design process. ***ARCH-CT2/CLO10 (A.4) (Section)*** ***Psychomotor skills*** • Demonstrate awareness and sensitivity to visual and tactile effects ***ARCH-P1/CLO11 (A.4) (Final Project)*** • Demonstrate coordination in producing architecture drawings ***ARCH-P2/CLO12 (A.4) (Elevation)***
Student Performance Criterion addressed:	• **A. 4. Technical Documentation:** Ability to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design. • **B. 9. Structural Systems:** Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems. • **B. 12. Building Materials and Assemblies:** Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Spence, W. P., Architectural Working Drawings: Residential & Commercial Buildings,(1993), Wiley; 1 edition - ISBN-10: 0471574880. • Sleeper, H.,R., Ramsey, C.,G., Architectural Graphics Standards, (2008),Wiley; 11 edition - ISBN-10: 0470085460. • Knobloch, P., G., Architectural Details from the Early Twentieth Century: A Book of Traditional Details,(1991), American Institute of Architects Press - ISBN-10: 1558350349 ***References from Effat Library:*** • Mehta, Madan., (2013) Building construction : principles, materials, and systems. Pearson Education, Inc. - ISBN 0-13-214869-2

	• Styles, K. & Bichard, A., Working drawing handbook, (2017), Fourth Edition - ISBN-0750663723 ***References from Effat Digital Library:*** • Wakita, Osamu A; Bakhoum, Nagy R; Linde, Richard M , (2011), The professional practice of architectural working drawings, 4th ed., Willy - ISBN: 0470618159, 9780470618158 • Spiro, Annette; Ganzoni, David; Carpo, Mario , (2013), The working drawing: the architect's tool - ISBN: 9783906027319, 3906027317 ***Recommended Texts:*** • Ford, E.,R., Details of Modern Architecture ,(1990), The MIT Press; illustrated edition - ISBN-10: 026206121X. ***Recommended Articles:*** • Groleau, Carole; Demers, Christiane; Lalancette, Mireille; Barros, Marcos (2012). From Hand Drawings to Computer Visuals: Confronting Situated and Institutionalized Practices in an Architecture Firm , Organization Science, 06/2012, Volume 23, Issue 3 , https://doi.org/10.1287/orsc.1110.0667 • Pinto-Puerto, Francisco & Jiménez-Martín, Alfonso (2016). Geometric Working Drawing of a Gothic Tierceron Vault in Seville Cathedral, Nexus Network Journal, 07/2016, Volume 18, Issue 2. https://link.springer.com/article/10.1007/s00004-015-0271-7 • Quarello, Ugo (2009), The Unpublished Working Drawings for the Nineteenth-Century Restoration of the Double Structure of the Real Chiesa di San Lorenzo in Torino, Nexus Network Journal, 12/2009, Volume 11, Issue 3. https://link.springer.com/chapter/10.1007%2F978-3-7643-8978-9_5
Topical Outline:	• What is working drawings? types of working drawings • Plans Requirements: structure, finishing, centrelines, doors &windows • Site Plan: Site &topography Requirements and basics, levels, finishing's, site furniture, etc.... • Section Requirements: structure, finishing, centrelines, levels, dimensions • Elevations Requirements: structure, finishing, centrelines, levels, dimensions • Technical Documentation Report • Full Project
Offered:	• Fall
Faculty assigned:	• Dr. Marwa Abouhassan, Dr.Rasha Moussa, Dr.Abeer Samy

ARCH 456	**Project Management**	**3 credits**
Prerequisites:	• ARCH 352	
Course Description:	Students learn about planning projects, defining project scope and translating physical needs into building area, developing alternative solutions, preparing schedules and estimates, coordinating work efforts, and other practical factors. The student must consider physical constraints, code implications, costs, bidding, construction sequencing and practices, design goals, and working with consultants.	
Course Goals & Objectives:	By the end of this course students will be able : • To recognize and apply professional business practices in the development of architecture designing and managing projects. • To write design agreement proposals. • To write representative agreement proposals. • To schedule construction projects.	

	• To estimate construction projects.
Course intended Learning Outcomes:	***Knowledge*** • Outline important principles approaches of Construction Project Management. ***ARCH-K1/CLO1 (C.3) (Midterm Q1, Classwork 1, Quiz 1)*** • Define Design & construction phases, Organization and Work Breakdown structure for Project Management. ***ARCH-K2/CLO2 (C.4) (Midterm exam Q2)*** ***Cognitive skills*** • Analyse Construction Contracts terms and define appropriate formatting to confirm duties and responsibilities for parties during Projects Execution. ***ARCH-C1/CLO3 (C.4, C.7) (Classwork #02, final exam Q2)*** • Conduct Scheduling and Estimation for Projects Plan in terms of monitoring and controlling project activities. ***ARCH-C4/CLO4 (C.5) (Term project & Final Exam Q3)*** ***Interpersonal skills*** • Demonstrate the student's ability and responsibility of conducting an individual research and submitting a conclusive report/project. ***ARCH-IR1/CLO5 (C.3) (Assignment #02, Classwork #04)*** ***Communication, IT, and Numerical skills*** • Enhance the student teamwork capacity and coordination between various tasks within a project environment. ***ARCH-CNIT1/CLO6 (C.4) (Term project, Quiz 2)*** • Articulate convincingly (verbally and in writing) various management concepts related to professional and construction projects. ***ARCH-CNIT2/CLO7 (Assignment 1, Term Project)*** ***Psychomotor skills*** • N.A.
Student Performance Criterion addressed:	• **C. 3 Client Role in Architecture:** Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains. • **C. 4. Project Management:** Understanding of the methods for competing for commissions, selecting consultants, and assembling teams, and recommending project delivery methods. • **C. 5. Practice Management:** Understanding of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, negotiation, mediation, and arbitration, and recognizing trends that affect practice. • **C.7. Legal Responsibilities:** Understanding of the architect's responsibility to the public and the client as determined by local or national ordinances or laws regarding registration or licensure, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and preservation and accessibility laws.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • Gould, F.E., Managing The Construction Process(2011), Pearson ISBN-13: 2900138135965, (4thEdition). ***References from Effat Library:*** • Walker, A., Project management in construction,(2015), John Wiley & Sons; 6th edition, ISBN-10: 9781118500408. ***References from Effat Digital Library:*** • Levy, S., Project Management in Construction,(2006), McGraw-Hill Professional; 5 edition, ISBN-10: 0071464174. ***Recommended Texts:***

	• Kerzner, H., Project Management Case Studies, (2009), Wiley; 3 edition, ISBN-10: 0470278714. ***Recommended Articles:*** • Orlando, D. (2013). Scope and stakeholder management: pain points, perils, and prosperity. Paper presented at PMI® Global Congress 2013— North America, New Orleans, LA. Newtown Square, PA: Project Management Institute. • Amgad, T Husein (2014), Construction and projects in Saudi Arabia: overview. Article published in: Association for corporate coucel, Construction and Projects Multi-Jurisdictional Guide, Thomson Reuters, 2013/14. Available at: practicallaw.com/2-534-0319. • Jones, T. (2017). Worth the Risk: Three Project Teams Met Obstacles Head-On to Deliver World-Class Results. PM Network, 31(9), 44–47 • Hwang, B.-G., Zhu, L., Wang, Y., & Cheong, X. (2017). Green Building Construction Projects in Singapore. Project Management Journal, 48(4), 67– 79.
Topical Outline:	• Introduction to Project Management • Construction Project Objectives • Scope and Stakeholder management • Procurement Delivery Systems • Bidding Process and Commissioning for tendering • Contract Agreement_ FIDIC Contracts • Estimation and Cost Control • Scheduling CPM and Resources Management • Term Project and scheduling tutorials • Risk Management • Project Closing and Lessons Learned
Offered:	• Spring
Faculty assigned:	• Dr. Aida Nayer, Dr. Alaa Abdou

ARCH 471	**Architecture Design studio -9: Capstone Project-1**	**5 credits**
Prerequisites:	• ARCH 408 - Good Standing	
Course Description:	In this course, students start to work on their Capstone Projects to be completed in ARCH 472. Students present a comprehensive proposal for their project and gather all relevant information in the form of an architectural program, which could be ready to follow in the next design stage.	
Course Goals & Objectives:	• To produce analysis that shows problem-solving methods for large size and complex architectural projects. • To analyze architectural forms and plans that express professional capability through a defined philosophical direction. • To express and present an understanding of qualities of architectural structures and materials. • To develop professional attitude in research and design techniques.	

Course intended Learning Outcomes:	***Knowledge*** • Consider diverse points of view, develop different proposals and test alternatives against relevant criteria and standards. ***ARCH-K1/CLO1 (A.5) (Assignment 1)*** • Understand the role of applied research in determining function, form and systems and their impact on human conditions and behaviour. ***ARCH-K2/CLO2 (Assignment 2 chapter 1 and 2)*** ***Cognitive skills*** • Use the gained architectural knowledge comprehensively with problem-solving techniques to prepare the core requirements of complicated projects. ***ARCH-C1/CLO3 (B.1) (MidTerm and Final Thesis)*** • Analyze site and relate it to project requirements. ***ARCH-C2/CLO4 (Assignment 3 chapter 3 and 4)*** • Develop a well-articulated architectural program and design brief. ***ARCH-C3/CLO5 (Assignment 3 chapter 3)*** ***Interpersonal skills*** • Develop the student's ability and responsibility of carrying out an individual design project based on the outcome of the conducted research. ***ARCH-IR1/CLO6 (A.5) (Final Presentation)*** • Illustrate a deep sense of leadership to the culture and sustainable community. ***ARCH-IR2/CLO7 (Final Thesis)*** ***Communication, IT, and Numerical skills*** • Present and defend their ideas throughout the semester. ***ARCH-CT1/CLO8 (B.7) (Assignment 3 Chapter 4)*** • Communicate effectively through preparing an advanced pioneer visual presentation to present their project and defend it in the final jury. ***(ARCH-CT2/CLO9 class participation and attendance)*** ***Psychomotor skills*** • Produce professional sketches and technical drawings, and prepare advanced models illustrating design ideas. ***ARCH-P1/CLO10 (Final Thesis and final presentation)***
Student Performance Criterion addressed:	• **A5. Investigative Skills:** Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes • **B.1. Pre-Design:** Ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria. • **B. 7. Financial Considerations:** Understanding of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.
Textbooks/Learning Resources:	***Prescribed Textbooks:*** • LaGro, James (2013). Site Analysis: Informing Context-Sensitive and Sustainable Site Planning and Design, Wiley, ISBN-10: 1118123670. ***References from Effat Library:*** • Allen, Edward and Iano, Joseph (2011), The Architect's Studio Companion: Rules of Thumb for Preliminary Design, Wiley, ISBN-10: 0470641916. ***References from Effat Digital Library:*** • Peña, William (2012). Problem seeking: an architectural programming primer, Wiley, ISBN-10: 1118084144Architect –Middle East (online magazine).

	Recommended Texts: • Ching, Francis D. K. and Winkel, Steven R, (2012) Building Codes Illustrated: A Guide to Understanding the 2012 International Building Code 4th Edition, Wiley, ISBN-10: 0470903570. • Grondzik,Walter T. (2014). Mechanical and Electrical Equipment for Buildings 12th Edition, Wiley, ISBN-10: 1118615905. • Watch, Daniel. (2008). Medical and dental space planning: a comprehensive guide to design, equipment, and clinical procedures. • Lechner, Norbert. (2014), Heating, Cooling, Lighting: Sustainable Design Methods for Architects 4th Edition , Wiley, ISBN-10: 111858242X. ***Recommended Articles:*** • Cherry, Edith. (2009). Programming for design: from theory to practice, Wiley, ISBN-10: 0471196452.
Topical Outline:	• How to choose a Capstone Project & Submission of project title proposals for Capstone Project • primary proposal for the chosen project • Research Methodology for Capstone Project • Research first submission, historical & literature review • Project Research second Submission [Project program] • Site analysis, project elements analysis & concept development • Capstone Project Research Final Submission [Jury & presentations]
Offered:	• Fall
Faculty assigned:	• Dr. Rahma Doheim, Dr. Aida Nayer, Dr. Alaa Abdou, Dr. Ahmed Refaat

ARCH 472	**CAPSTONE PROJECT**	**6 credits**
Prerequisites:	• ARCH 471	
Course Description:	This course is a continuation of ARCH 571 in which the previously prepared architectural program is transformed into a completed design solution through a defined philosophical direction and a clear vision. This is achieved by stressing the use of analytical logic in presenting the main design problem(s), methods of evaluation, and the formulation and selection of the most appropriate design alternatives. This course is the culmination of work begun in ARCH 571 where students present their capstone project proposals	
Course Goals & Objectives:	The main objective of the course is to prepare and equip the students with the ability to solve complex architectural projects and buildings at highly professional standards, and enable them to: • Produce innovative and unique design ideas and concepts that are reliable and professional. • Master problem solving methods for large size and complex architectural projects • Produce architectural forms and plans that express professional capability. • Express and present an understanding of qualities of architectural structures and materials. • Master techniques of various computer software and professional presentation.	
Course intended Learning Outcomes:	*Knowledge* • N.A. *Cognitive skills* • Use the gained architectural knowledge comprehensively with problem solving techniques to develop and design complicated projects. *ARCH-C2/CLO1 (B.6, B.11) (Assignment#1, Assignment#3, Assignment#4, Final Jury)*	

	• Interpret research in determining function, form and systems and their impact on human conditions and behaviour. *ARCH-C1/CLO2 (B.5) (Assignment#1, Assignment#4, Final Jury)* • Apply the basic principles of structural behaviour and select between different structural systems. *ARCH-C3/CLO3 (B.6) (Assignment#2, Assignment#4, Final Jury)* *Interpersonal skills* • Carry out an individual design project based on the outcome of the conducted research responding to the community needs and social responsibility. *ARCH-IR2/ CLO4 (B.6) (Assignment#2, Assignment#4, Final Jury)* • Illustrate a deep sense of leadership to the culture and a sustainable community. *ARCH-IR3/ CLO5 (B.3) (Assignment#4, Final Jury)* *Communication, IT, and Numerical skills* • Orally present and defend their ideas throughout the semester. *ARCH-CT1/CLO6 (A.1) (Assignment#3, Assignment#4, Final Jury)* • Apply numerical and communication skills as part of students' generic skills to help them how to learn. *ARCH-CT1/CLO7 (A.1) (Assignment#3, Assignment#4, Final Jury)* *Psychomotor skills* • Produce professional sketches and technical drawings, and prepare advanced models illustrating design ideas. *ARCH-PSY1/CLO8 (C.6) (Assignment#3, Assignment#4, Final Jury)*
Student Performance Criterion addressed:	• A.1 .Communication Skills: Ability to read, write, speak and listen effectively. • B.3 .Sustainability: Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency. • B.5. Life Safety: Ability to apply the basic principles of life-safety systems with an emphasis on egress. • B.6. Comprehensive Design: Ability to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC: A.2. Design Thinking Skills — B.2. Accessibility A.4. Technical Documentation — B.3. Sustainability A.5. Investigative Skills — B.4. Site Design A.8. Ordering Systems — B.5. Life Safety A.9. Historical Traditions and Global Culture — B.8. Environmental Systems B.9. Structural Systems • B.11. Building Service Systems: Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems. • C.6. Leadership: Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.
Textbooks/Learning Resources:	*Prescribed Textbooks:* • LaGro, James (2013). Site Analysis: Informing Context-Sensitive and Sustainable Site Planning and Design, Wiley. ISBN-10: 1118123670 • Allen, Edward and Iano, Joseph (2011), The Architect's Studio Companion: Rules of Thumb for Preliminary Design, Wiley. ISBN-10: 0470641916 • Cherry, Edith. (2009). Programming for design: from theory to practice , Wiley. ISBN-10: 0471196452

	References from Effat Library: • Ching, Francis D. K. and Winkel, Steven R, (2012) Building Codes Illustrated: A Guide to Understanding the 2012 International Building Code 4th Edition, Wiley. ISBN-10: 0470903570 • Grondzik,Walter T. (2014). Mechanical and Electrical Equipment for Buildings 12th Edition, Wiley. ISBN-10: 1118615905 • Neuman, David J. (2013). Building type basics for college and university facilities. *References from Effat Digital Library:* • Lechner, Norbert. (2014), Heating, Cooling, Lighting: Sustainable Design Methods for Architects 4th Edition , Wiley. ISBN-10: 111858242X • Peña, William (2012). Problem seeking: an architectural programming primer, Wiley. ISBN-10: 1118084144. *Recommended Texts and Articles:* • Architectural Science Review, The University of Sydney, ISSN 0003 8628 , • Building Design + Construction magazine, inspiring the building team, www.BDCuniversity.com, Scranton Gillette Corp. • ICC, IBC 2009 – International Building Code. • ADA, American Disability Acting.
Topical Outline:	• Introduction and Course Framework • Research re-cap, clearing program components, site selection, etc, • Site Selection and Redefining the program • Site analysis, Project statement & Concept Development • Basic Design Idea
Offered:	• Spring
Faculty assigned:	• Dr. Mohamed F. Mohamed, Dr. Tarek Ragab, Dr. Lobna Mostafa, Dr. Marwa AbouHassan, Dr. Ahmed Refaat, Dr. Ahmed Waseef

PART FOUR (IV): Section 2- Faculty Résumés

The following are a sample of the faculty CVs. Other CVs are available upon request.

Name: Dr. Mervat El-Shafie	
Courses Taught:	• ARCH 343 Introduction to Landscape Architecture • ARCH 340 Research Methods in Architecture and Urban Design • UD 612 Site and Landscape Design
Educational Credentials:	• Ph.D. in Built-Environment from Lincoln University, New Zealand in 1999 • M.Arch. in Architectural Engineering, Ain Shams University, Faculty of Engineering, Cairo, Egypt, 1993 • B.Sc. in Architectural Engineering, Ain Shams University, Faculty of Engineering, Cairo, Egypt, 1976.
Teaching Experience:	• Full time Assistant Professor (2006 – Present), Effat University, Jeddah, KSA • Full time Assistant Professor (2001 - 2006), Higher Technological Institute, 10th of Ramadan (HTI), Egypt. • Part time Assistant Professor (2003 - 2004), Thebes Academy, Cairo, Egypt • Lecturer (1997- 1999), Lincoln University, New Zealand
Professional Experience:	• Director of Architecture, Site for Architecture and Design (1986-1995), Cairo, Egypt • Urbanization and Residential Housing Co, Cairo, Architect & Urban Designer (1977-1986) • Architect, Inter-Consult-Professor Ali Raafat (1976 – 1977), Cairo, Egypt
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• El-Shafie, M. & A. El-Shorbagy (2018). A Heterogeneous Resilient Approach to Urban Regeneration, MIC2, Effat University, Jeddah, KSA. • El-Shafie, M & L. Fakeih. (2018). The Smart Environment of Commercial Buildings. 15th Learning and Technology Conference (L&T), Effat University, Jeddah, KSA. El-Shafie, M. (2017). Towards a Heterogeneous Resilient and Sustainable Future. Future Landscape & Public Realm Conference, Jeddah, KSA. Dec 11-12. • El-Shafie, M. (2014). An Assessment Study of Unplanned Settlements. Case Study: Al-Ruwais District, Jeddah, Saudi Arabia, European Scientific Journal. • El-Shafie, M. (2012). Upgrading the Unplanned Districts of Jeddah. AIA Conference Architecture & Design Days in Jeddah, Jeddah, KSA. Oct, 9-11, http://www.sesam-uae.com/jeddah • El-Shafie, M. (2012). Sustainability versus mega urban development projects, IJCEE-IJENS. • El-Shafie, M. (2012). Sustainability Versus Mega Urban Development Projects, IJCEE-IJENS. • El-Shafie, M. (2011). Human-Environment Interactions: Phenomenal Relationships. IJCEE-IJENS. • El-Shafie, M. (2010). Phenomenology of Site Design. IJBAS-IJENS
Professional Memberships:	Member of the Egyptian Engineering Syndicate (EES), Egypt, since 1976

Name: Dr. Kholoud Moumani	
Courses Taught:	• ARCH 572 Capstone Project • ARCH 305 Architecture Design Studio-5 • ARCH 408 Architecture Design Studio-8 • ARCH 455 Working Drawings • ARCH 444 Housing & Economics
Educational Credentials:	• Ph.D. in Architectural Engineering, Al-Azhari University, 2015. • M.Sc. in Architectural Engineering, Jordanian University, 2002. • B.Sc. in Architectural Engineering, Science & Technology University, 1995.
Teaching Experience:	• Full time Associate Professor (2016 – Present), Effat University, Jeddah, KSA. • Lecture (2008 – 2016), Effat University, Jeddah, KSA.
Professional Experience:	• Chair of boarder centres all over Jordan, Ministry of public works &Housing (2005-2008) • Senior Architect, Ministry of public works &Housing (1997-2005) • Architect Private sector (1994-1997)
Licenses/Registration:	• Jordan
Selected Publications and Recent Research:	• Dawod A.S. & Moumani K. (2018) "Bioclimatism & Vernacular Architecture as a pass for new sustainable structure", The 2nd Memaryat International Conference-MIC 2018, Jeddah, KSA.
Professional Memberships:	• Member of Jordanian Institute of Architects, since 1996 • Member of Jordanian Institute of Professional Environmental Practice, since 1996 • Member of Jordanian National Standards Institute (a professional certifying organization must meet two requirements), since 1996

Name: Professor Moshira El Rafey		
Courses Taught:	• ARCH 306 Architecture Design Studio-6 • ARCH 340 Research Methods • ARCH 431 Theory of Architecture • ARCH 557 Professional Practice	• UD 690 Urban Design Thesis
Educational Credentials:	• Doctor Degree in Architecture, the University of Michigan, College of Architecture and Urban Planning, Taubman College, USA, September 2002. • M.Sc. in Urban Design with High Distinction, the University of Michigan, College of Architecture and Urban Planning, Taubman College, USA, August 1983 • M.Sc. in Architectural Engineering, Helwan University, Faculty of Fine Arts, Department of Architecture, Cairo University, 1981. • B.Sc. in Architectural Engineering, Helwan University, Faculty of Fine Arts, Department of Architecture, Alexandria University,1979	
Teaching Experience:	• Full time Professor of Architecture (2015 – Present), Effat University, Jeddah, KSA • Full time Professor (2011 – 2014), Prince Sultan University, Head of the Interior Design and Architecture Departments, Riyadh, KSA. • Full time Professor of Architecture (2008 – 2011), Helwan University, Head of the Architecture Department, Faculty of Fine Arts, Department of Architecture, Zamalek, Cairo, Egypt • Associate Professor of Architecture (2005 – 2008), Helwan University, Head of the Architecture Department, Faculty of Fine Arts, Department of Architecture, Zamalek, Cairo, Egypt.	

	• Assistant Professor of Architecture (2002 – 2005), Helwan University, Head of the Architecture Department, Faculty of Fine Arts, Department of Architecture, Zamalek, Cairo, Egypt • Associate Professor of Architecture (1995- 2000), King Faisal University, AlKhubar, KSA. • Assistant Profresoor of Architecture (1992- 1995), Helwan University, Head of the Architecture Department, Faculty of Fine Arts, Department of Architecture, Zamalek, Cairo, Egypt. • Lecturer (1991-1992), Helwan University, Head of the Architecture Department, Faculty of Fine Arts, Department of Architecture, Zamalek, Cairo, Egypt. • Lecturer (1980 – 1981), Alexandria University, Faculty of Fine Arts, Department of Architecture, Zamalek, Cairo, Egypt.
Professional Experience:	• Owner of a private office (2004- 2011), Designing of several architectural buildings and several interior decorations for private apartments and villas • Coordinator of planning and urban renewal of 55 villages in many Governorates (2008-2011), Helwan University RCTD (Research Center for Technological Development, Helwan University), in conjunction with the Egyptian Ministry of Housing Utilities and Urban Communities. • MIMAR Office (2003-2004), Participating in the Architectural Competition- Al-Daryia University for Girls, Kingdom of Saudi Arabia, "First Prize Award Winning", Cairo, Egypt. • Project Coordinator (2001- 2003), Center for Research, Development and Sustainability, Coordinator of Karf Al-Shaik Project, Architectural Center for Research, Development and Sustainability, Faculty of Fine Arts, Helwan University, Egypt, • Practical work of architectural design "Architects Designers" (1992 – 1995), Private office-Mohandeseen, Cairo, Egypt • Architect at Hobbs & Black Associates Architecture Office (1990 – 1991), USA • Consultant Architect (1986 – 1987), Egyptian Ministry of Land Reconstruction, with a joint venture American, Egyptian consulting • Practical work of architectural and interior design projects (1984 – 1985), Cairo, Egypt. • Architect designer (1979 – 1981), Practical work of Architectural Design "Omar Mahran & Hany Alouba Office" Kafr Abdou Str., Rouchdi, Alexandria, Egypt.
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• El Rafey M., (2019), "Green Architecture and Renewable Application in the Middle East. In the 2nd International Conference on Infr, Architecture and Civil Engineering", Rome, Italy. • El Rafey M and Farag A., (2018), "Stimulating Enthusiasm in architecture pedagogy, female school of architecture, WEI, the West East Institute, Boston, USA • El Rafey M, (2016), "Sustainable Construction materials in (Bait Al-Shar') and Modern trends in Saudi Arabia. In the 4th International Conference on Sustainability- Construction Materials and Technologies, Las Vegas, USA • El Rafey M; "Sustainable Development in Egypt and the Middle East", lecture presented at Colorado State University, USA, invitation supported by the U.S. Department of Education Undergraduate International Studies and Foreign Languages Grant, the College of Applied Human Sciences, and the Department of Construction Management, Colorado State University.
Professional Memberships:	• Member of the Egyptian Engineering Syndicate. • Member of the Industry Technology and Engineering Project Research Unit at The Chinese Egyptian Research Center, Helwan University, 2008-2009 • Member of the TTO, Technology Transfer Program offices at Helwan universities- Grant funding from the EU-TEMPUS, Cairo, Egypt, 2010-2011.

	• Member of (GPRS), Green Pyramid Rating System, The Egyptian Energy Efficiency for Commercial Building Code, Innovative and Added value Committee, Egypt, 2010-2012. • Member of Al-Mansouria Rotary Club, Head of the International Committee - Prize winning - Paul Harris Fellow ,Cairo, Egypt, Since 2001 • Member of EAUW, Egyptian Association of University Women. Head of the Projects' committee, since 1992 • Member of the AAUW, American Association of University Women, winning of the international fellowship for the AAUW, since 1992 • Member of the IAUW International Association of University women, since 2005

Name: Dr. Tarek M. Saad Ragab

Courses Taught:	∗ ARCH 572 Capstone Graduation Project	∗ UD 610 Urban Design and Development Theory, Principle and Development ∗ UD 611 Urban Design Economics and Real Estate ∗ UD 615 Urban Sociology ∗ UD 613 Contemporary Issues in Urban Design
Educational Credentials:	∗ Ph.D. in Urban Design, Rutgers University, 1996 Edward j. Bloustein School of Planning and Public Policy- New Jersey- USA ∗ M.Sc. in Architectural Engineering, Alexandria University, Faculty of Engineering, 1988 ∗ B.Sc. in Architectural Engineering, Alexandria University, Faculty of Engineering, 1983	
Teaching Experience:	∗ Full time Professor (2014 – Present), Effat University, Jeddah, KSA ∗ Full time Professor (2010-2014), Alexandria University- Alexandria, Egypt ∗ Associate Professor (2005- 2010), Beirut Arab University ∗ Assistant Professor (1996-2005), Alexandria University, Alexandria, Egypt ∗ Lecturer (1983-1996) Alexandria University, Alexandria, Egypt	
Professional Experience:	∗ General Manager and Founder at INVOSEC For Community Development and Sustainable Environment (1997-2010), Alexandria, Egypt ∗ Zoning Officer at Municipality of Metuchen (1994-1995), New Jersey. USA. ∗ Public-Works Projects Administrator at Borough of Freehold (1992-1994), Freehold, New jersey, USA. ∗ Architecture Consultant at The Italian Consulate of Alexandria and the Honorary Italian Consulate at Port Saeed(1990-1992, Egypt.	
Licenses/Registration:	∗ Egypt	
Selected Publications and Recent Research:	∗ Ragab, T., (2014), "The Crises of Cultural Identity in Rehabilitating Historic Beirut Downtown" Cities Journal. Volume 3. WWW.elsevier.com/locate/cities ∗ Ragab, T., (2013), "Managing Distortions in The Egyptian Urban System: Does the Current Development Policy pay off?" Al- Omran – Fifth edition. ∗ Ragab, T., (2010), "Farmland Use Conversion in Egypt's Peri-Urban Region: The Role of Stakeholders". Al-Omran- Fifth edition. Faculty of Regional and Urban Planning- Cairo University. ∗ Ragab, T., (2009), "Local Governance of Local Administration: An Analysis of the Egyptian Local Urban Management System ". Architecture and Planning Journal APJ volume 19. ∗ Ragab, T., (2007), "Managing Spatial Decision- Making Incapacity Via GIS Decision Support System: Kadisha Valley – Lebanon". Architecture and Planning Journal APJ volume 18, Beirut, Lebanon. ∗ Ragab, T., (2007), "Policies to Invigorate Polarization Reversal at Egypt: A Critical Review" Architecture and Planning Journal APJ VOLUME 18, Beirut, Lebanon.	

Professional Memberships:	∗ Member of the Egyptian Society of Engineers ∗ Member of the Egyptian Society of Urban Designers ∗ Member of the Egyptian Affiliation of Architects

Name: Prof. Khaled Mahmoud El-Sawy	
Courses Taught:	• ARCH 350 Structure in Architecture 1 • ARCH 351 Structure in Architecture 2 • ARCH 352 Building Structures & Materials
Educational Credentials:	• Ph.D. in Civil Engineering, University of Western Ontario, Ontario, Canada, 1996 • M.Sc. in Civil Engineering, University of Western Ontario, Ontario, Canada, 1992 • B.Sc. in Civil Engineering, Ain Shams University, Cairo, Egypt, 1982
Teaching Experience:	• Full-time Professor (2015 – Present), Effat University, Jeddah, KSA • Full-time Professor (2014 – 2015), Civil & Environmental Engineering, United Arab Emirates University, Al-Ain, UAE • Full-time Associate Professor (2003 – 2014), Civil & Environmental Engineering, United Arab Emirates University, Al-Ain, UAE • Full-time Assistant Professor (1997 – 2003), Civil & Environmental Engineering, United Arab Emirates University, Al-Ain, UAE
Professional Experience:	• Full-time Structural Engineer (1985-1989), Civil Engineering Department, ENPPI, Cairo, Egypt • Full-time Structural Engineer (1982-1985), MIS Consulting Office, Cairo, Egypt
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• O.R. Abou El-Hamd, A.M.I. Sweedan, K.M. El-Sawy (2018). "Experimental and numerical study of the parameters controlling the behavior of double-lap connections of steel plates bolted to hybrid FRP strips." Thin-Walled Structures 125: 140-151. • M.M. El Gamal, A.S. El-Dieb, A.M.O. Mohamed, K.M. El Sawy (2017). "Performance of modified sulfur concrete exposed to actual sewerage environment with variable temperature, humidity and gases." Journal of Building Engineering 11: 1-8. • A.M.I. Sweedan & M.M.A. Alhadid & K.M. El-Sawy (2016). "Experimental study of the flexural response of steel beams strengthened with anchored hybrid composites." Thin-Walled Structures 99: 1-11.
Professional Memberships:	• Member of the Egyptian Engineering Syndicate (EES), Egypt, since 1982

Name: Prof. Dr. Mohamad Kashef	
Courses Taught:	• ARCH 101 Architecture Design Studio I • ARCH 557 Professional Practice • INTD 201 Interior Design Studio III
Educational Credentials:	• Ph.D. in Urban Planning, University of Waterloo, Canada, 2003 • Master's in Islamic Architecture, The American University in Cairo, 1990 • Bachelor of Architecture, Cairo University, 1984

Teaching Experience:	• Full Time Professor in Architecture (2018-Present), Effat University, KSA • Full Time Professor in Architecture (2009-2018) ALHOSN University, UAE • Full Time Assistant/Associate Professor (2003-2009), East Carolina University, North Carolina, USA • Full Time Lecturer in Urban Design (1998-2003), University of Waterloo, Ontario, Canada
Professional Experience:	• Chief Architect and Project Manager (1990-1998), Universal Projects Inc. Portland Oregon, USA / Riyadh, Saudi Arabia • Architect and Construction Manager (1984-1990)
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• Kashef, M. (2018) Technology and Urban Form: From the Horse Drawn Carriage to the Information Highway, International Journal of Architecture, Engineering and Construction (IJAEC). • Kashef, M. (2017) Residential Developments in Small-Town America: Assessment and Regulations, City, Territory and Architecture: An interdisciplinary debate on project perspectives, Springer, Vol 4 (14) • Kashef, M. (2016) Urban Livability Across Disciplinary and Professional Boundaries, Frontiers of Architectural Research, Elsevier, Vol 5 (2) • Savic M. and M. Kashef (2013) Learning Outcomes in Affective Domain Within Contemporary Architectural Curricula, , International Journal of Technology and Design Education, Springer, Vol 23 (1) • Kashef, M. & A. Sabouni (2012) Using High-tech Systems to Monitor and Deter Crime in and around Buildings, Research & Security Studies, Vol 3 (2) • Kashef, M. (2011) Neighborhood Design and Walkability: A Synthesis from Planning, Design, Transportation and Environmental Health Fields, M. Kashef, Journal Of Urbanism, Vol 4 (1) • Kashef, M. and A. Sabouni (2010) Nanotechnology and the Building Industry, Refereed Proceedings of the International Conference on Nanotechnology: Fundamentals and Applications, Ottawa, Ontario, Canada • Kashef, M. (2010) Musafirkhana Palace: The Lost Architectural Treasure, Journal of Architecture (RIBA Journal), Vol 15 (6) • Kashef, M. (2009) Sense of Community and Residential Space: Contextualizing New Urbanism Within a Broader Theoretical Framework, International Journal Of Architectural Research (IJAR), Vol 3 (3) • Kashef, M. (2008) Architects and Planners Approaches to Urban Form and Design in the Toronto Region: A Comparative Analysis, Geoforum, Vol 39 (1) • Kashef, M. (2007) The Urban Design Discourse and Professional Divide, Open House International, Vol. 32 (3)
Professional Memberships:	• Ontario Association of Architects, OAA, Canada • Royal Architectural Institute of Canada, RAIC • Council of Tall Building and Urban Habitat, CTBUH, USA • North Carolina Licensing Board for General Contractors, NCGC, USA

Name: Dr. Mohamed Fekry M. Mohamed	
Courses Taught:	• ARCH 102 Architecture Design Studio-2 • ARCH 305 Architecture Design Studio-5 • ARCH 407 Architecture Design Studio-7 • ARCH 408 Architecture Design Studio-8 • ARCH 363 Psychology & Sociology in Architecture • ARCH 571 Capstone Project Preparation • ARCH 572 Capstone Project

Educational Credentials:	• Ph.D. in Architectural Engineering, Cairo University, Faculty of Engineering, Apr.-2004. • M.Sc. in Architectural Engineering, Cairo University, Faculty of Engineering, Apr.-2000. • B.Sc. in Architectural Engineering, Cairo University, Faculty of Engineering, July-1995.
Teaching Experience:	• Full time Full Prof. (2018 – Now), Architecture Department, Effat University, Jeddah, KSA. • Full time Associate Prof. (2013 – 2018), Architecture Department, Effat University, Jeddah, KSA. • Full time Associate Prof. (2009 – 2013), Dept. of Islamic Arch., Faculty of Engineering & Islamic Arch., Umm Al-Qura University, Makkah, KSA. • Full time Assistant Prof. (2008 – 2009), Dept. of Islamic Arch., Faculty of Engineering & Islamic Arch., Umm Al-Qura University, Makkah, KSA. • Full time Assistant Prof. (2004 – 2008), Architecture Department, Cairo University, Giza, Egypt. • Full time Lecturer (2000 – 2004), Architecture Department, Cairo University, Giza, Egypt. • Full time Teaching Assistant (1995 – 2000), Architecture Department, Cairo University, Giza, Egypt.
Professional Experience:	• Partner of a private studio for Architecture, Landscaping and Interior Design. Designed several local architectural projects (ICEC).
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• Mady Mohamed & Mohammed f. M. Mohammed (2018), "Investigating the Environmental Performance of the Wind Catcher in Jeddah" in: Islamic Heritage Architecture and Art II, WIT Press, UK.
Professional Memberships:	• Member of Syndicate of Engineers, Cairo, Egypt, since Aug. 1995 • Member of International Society for Development & Sustainability, Japan, since Jan. 2015 • Member of Board of Directors of Arab Society for Computer Aided Architectural Design ASCAAD, since June 2015

Name: Dr. Abeer Samy		
Courses Taught:	• ARCH 572 Capstone Project • ARCH 305 Architecture Design Studio-5 • ARCH 204 Architecture Design Studio-4 • ARCH 455 Working Drawings • ARCH 352 Building Structures & Materials	• INTD202 Interior Design Studio-4 • DESN402 Design Studio-8
Educational Credentials:	• Ph.D. in Architectural Engineering, Tanta University, Faculty of Engineering, June 2004. • M.Sc. in Architectural Engineering, Tanta University, Faculty of Engineering, Dec 2001. • B.Sc. in Architectural Engineering, Tanta University, Faculty of Engineering, July-1997, Honour Degree.	
Teaching Experience:	• Full time Associate Professor (2016 – Present), Effat University, Jeddah, KSA. • Full time Associate Professor (2010 – 2016), Taif University, Taif, KSA. • Full time Assistant Professor (2004 – 2010), Tanta University, Tanta, Egypt. • Full time Lecturer (2002 – 2004), Tanta University, Tanta, Egypt. • Full time Teaching Assistant (1998 – 2002), Tanta University, Tanta, Egypt.	
Professional Experience:	• Partner and Senior Architect (2002-2010) of Benna Centre for Structure &Architectural Design, Egypt. Designed several local architectural projects. • Architectural Consultant (2004-2010) at Engineering Consulting Centre, Faculty of Engineering, Tanta University.	
Licenses/Registration:	• Egypt	

Selected Publications and Recent Research:	• Dawod A.S. (2018), "The Biomimetic Architecture: Creating A Passive Defense System IN Building Skin to Solve Zero Carbon Construction Dilemma", EQA – Environmental quality Journal, 2018 • Dawod A.S. & Moumani K. (2018) "Bioclimatism & Vernacular Architecture as a pass for new sustainable structure", The 2nd Memaryat International Conference-MIC 2018, Jeddah, KSA. • Dawod A.S.(2017), "Smart Materials Innovative Technologies in architecture; Towards Innovative design paradigm", International Conference – Alternative and Renewable Energy Quest, AREQ 2017, 1-3 February, Spain.
Professional Memberships:	• Member of Egyptian Engineers Syndicate (EES), Egypt, since 1997 • Member of Arab Society for Computer Aided Architectural Design (ASCAAD) Egypt, since 2007 • Member of Egyptian Architects Association (EAA), Egypt, since 2008 • Member of Federation of Arab Engineers (FAE), Egypt, since 2015

Name: Dr. Mady Mohamed

Courses Taught:	• ARCH 101 Architecture Design Studio-1 • ARCH 102 Architecture Design Studio-2 • ARCH 204 Architecture Design Studio-4 • ARCH 408 Architecture Design Studio-8 • ARCH 252 Building Construction • ARCH 453 Energy and Design • ARCH 364 Color and Light Principles • ARCH 571 Capstone Preparation • ARCH 572 Capstone Project	• UD 690 Design Thesis I • UD 691 Design Thesis II • UD 692 Urban Design Project
Educational Credentials:	• Ph.D. in Architecture, Dundee School of Architecture, UK, 2009 • M-Phil in Architecture, Dundee School of Architecture, UK, 2006 • M.Sc. in Architecture, Alminya University, Egypt, 2002 • B.Sc. in Architecture, Alminya University, Egypt, 1996	
Teaching Experience:	• Associate Professor (2014 - Present), Effat University, KSA; • Assistant Professor (2009 - 2014), Zagazig University, Egypt; • Assistant Lecturer (PT) (2006 - 2009), Dundee School of Architecture, UK; • Assistant Lecturer (1998 - 2005), Zagazig University, Egypt;	
Professional Experience:	• Authorized Consultant Architect in the field of Design of Public Buildings, (Egyptian Engineering Syndicate), (2013 - 2014) • LEED Green Associate and Consultant, Environmental Design & Construction, USGBC, (2012 - 2014); http://ibgguide.findaleedconsultant.com/ibg/index.cfm?pid=506&lid=676&prodcode=1000 • DESIGN Firm for architectural and environmental consultancy, (Founder) (2010-2014) • Part time Architect (2005-2006), Field Work Firm for Architectural Consultation, Dundee, UK • Part time Architect and Site Engineer (1997-2005), Architectural & Urban Scientific Research, Centre (AUSRC), Egypt; Urban Edge Firm, Egypt; and Yathreb Complete Construction Company, Egypt	
Licenses/Registration:	• Egypt	

Selected Publications and Recent Research:	• Mohamed, M. and Nayer, A.,(2019), "On Wind Catcher Integration in Contemporary Buildings in Jeddah, EQA", International Journal of Environmental Quality / Qualité de l'Environnement / Qualità ambientale,, 32 (2019) 01-14, Print ISSN: 2039-9898, Univ Studi Bologna, Italy • Mohamed, M. Kilingman, A. Hussien, H.,(2018), "Examining the Potential Values of Vernacular Mud Houses in the Asir Region of Saudi Arabia", The 2nd International Conference on Islamic Heritage Architecture and Art, 17 - 19 April, 2018, Malta, Conference Topic: Climate adaptability, Heritage interventions between Constants and Variables, AND published at the journal of WIT Transaction on the Built Environment, Islamic Heritage Architecture and Art II, Vo., 177, pages: 27-38, 2018. • Mohamed, M. Fekry, M., (2018),"Investigating the environmental performance of the wind catcher in Jeddah", Presented at the 2nd International Conference on Islamic Heritage Architecture and Art, 17 - 19 April, 2018, Malta, Conference Topic: Climate adaptability, Heritage interventions between Constants and Variables, AND published at the journal of WIT Transaction on the Built Environment, Islamic Heritage Architecture and Art II, Vo., 177, pages: 15-26, 2018. • Mohamed M, (2018), "The mastery of the Takhtabush as a paradigm traditional design element in the hot zone climate, EQA" – International Journal of Environmental Quality / Qualité de l'Environnement / Qualità ambientale, 28 pages: 1-11, Print ISSN: 2039-9898, Univ Studi Bologna, Italy. • Mohamed, M., (2017), "Green Building Rating Systems as a Design Target for Public Building –Case Study Analysis", Presented at the 4th international conference on RENEWABLE ENERGY: GENERATION AND APPLICATIONS, ICREGA'16 conference, 08-10 / 02/2016, Belfort, BELFORT, FRANCE, Organized by UTBM, UAEU and UFC Universities, FEMTO-ST Laboratory and FCLAB CNRS research federation. Published in, Progress in Industrial Ecology, An Int. J., Publisher: Inderscience Enterprises Ltd. ISSN:1476-8917. E-ISSN:1478-8764. 2017 Vol.11, No.2, pp.118 – 134. • Mohamed M., (2014), "Lessons from the Past to Enhance the Environmental Performance of Primary School Classrooms in Egypt", Environment and Ecology Research, 2, 221- 233. doi: 10.13189/eer.2014.020601. Vol. 2(6), pp. 221 - 233, June 2014, Horizon Research Publishing Cooperation, USA; • Mohamed, M.; Abu Elfadle H. (2013), "Transformable Architecture, A key to Improve stadiums & sports buildings", The First International Engineering Conference Hosting Major International Events Innovation, Creativity and Impact Assessment. Housing &Building National Research Center, Cairo, Egypt from 15-18-01-2013. • Mohamed, M., M. Osman, and T. Gado, (2010), "Investigating the intelligence of the low-tech earth architecture of the Sahara: A feasibility study from the western desert of Egypt. Intelligent Buildings International" (IBI), 2010. V.2: Iss. 3, p. 179-197.
Professional Memberships:	• USGBC (United states Green Building Council), USA; http://www.usgbc.org/people/mady-mohamed/0010855449 • TOT for ESD (Education for Sustainable Development, EduCAMP), EU; http://educamp.lfi.rwth-aachen.de/ • GOPP (General Organizing for Physical Planning), Egypt • Member of (SESG, Scotland), (IACSIT, Singapore), (GESTW, Egypt), (ISDS, Japan), and (AASCIT, America) • Member of the Egyptian Engineering Syndicate (EES), Egypt, since 1996

Name: Dr. Tarek Abdelsalam		
Courses Taught:	• ARCH 307 Architecture Design Studio-7 • ARCH 408 Architecture Design Studio-8 • ARCH 352 Building Structures and Materials • ARCH 557 Professional Practice	• UD 624 Global Urban Design Practice
Educational Credentials:	• Ph.D. in Architecture, University of Huddersfeild, United Kingdom, Dec.2002. • MPhil-PhD transfer, University of Huddersfeild, United Kingdom. July 1997 • B.Sc. in Architectural Engineering, Faculty of Engineering, Zagazig University, Cairo , July 1989.	
Teaching Experience:	• Full time Associate Professor (2018 – Present), Effat University, Jeddah. • Full time Assistant / Associate Professor (2006 – 2017), University of Modern Sciences and Arts (MSA), Cairo • Full time Assistant Professor (2005 – 2006), Ajman University for Science and Technology, United Arab Emarets. • Part time Assistant Prof. (2012 – 2017), Modern Academy For Engineering and Technology, Cairo • Part time Assistant Prof. (2011 – 2015), The High Institute of architecture, 15th of May, Cairo.	
Professional Experience:	• Designing numerous architectural and urban planning projects in Egypt, Saudi Arabia, Kuwait, Qatar, and UAE • Leading and supervising design teams of the architectural and urban planning projects and coordination with the other disciplines. • Particular experience in hospitals design. • Particular experience in educational buildings design.	
Licenses/Registration:	• Egypt	
Selected Publications and Recent Research:	• Abdelsalam, Tarek. "New Architectural Intervention in Historically Sensitive Contexts: Historic Cairo & Old Jeddah as Case Studies". 2nd Memaryat International Conference MIC 2018, Architecture and Urban Resiliency, Effat University, 4/2018. • Abdelsalam, Tarek. "Adapting the Concept of Courtyard in Long-Narrow Attached House as a Sustainable Approach: the Saudi Experiment". International Journal of Contemporary Architecture "The New ARCH" Vol.2, No. 2, 2015. • Abdelsalam, Tarek. "The Concept of Atrium House as a Sustainable Solution: the Case Study of Almakiya Residence in Saudi Arabia". 1st International Conference Zaytona University, Jordan 'Design & Innovation in Sustainability" Amman, Jordan, 13-15 May 2014. • Abdelsalam, Tarek. "Rebuilding the Contemporary Identity of Post-War Cities: Aleppo and Almousel as Case Studies". (research is in progress).	
Professional Memberships:	• Member of Engineering Syndicate, Egypt • Member of Association of Egyptian Architects • Member of Society for Research on Identity Formation (SRIF) • Member of Architectural Humanities Research Association (AHRA) • Member of Architects for Peace • Member of Research Center for Islamic History, Architecture and Culture	

Name: Dr. Aida Nayer

Courses Taught:	• ARCH 571 Capstone Preparation • ARCH 556 Project Management • ARCH 369 Facility Management • ARCH 102 Architecture Design Studio-2 • ARCH 203 Architecture Design Studio-3 • ARCH 305 Architecture Design Studio-5 • ARCH 407 Architecture Design Studio-7	• DSN 111 Design Fundamentals • DSN 101 Design Studio 01 • UD 624 Global Urban Design Practice
Educational Credentials:	• Ph.D. in Architectural Engineering, Alexandria University, Faculty of Engineering, 2013. • M.Sc. of Information Technology, IPGSR-Alexandria University, 2005 • B.Sc. in Architectural Engineering, Alexandria University, Faculty of Engineering, 1995.	
Teaching Experience:	• Full time Assistant Professor (2014 – 2018), Effat University, Jeddah, KSA • Full time Lecturer (2013 – Present), High Institute For Engineering And Technology, Beheira, Egypt	
Professional Experience:	• CONSERV ENGINEERING, Cairo, Egypt (Jan. 2008-Jan. 2013), Technical Office Manager • Shuttering Construction, Cairo, Egypt (Sep. 2006- Jan. 2008), Senior Technical Office Engineer • VACSERA, Ministry of Health, Cairo, Egypt. (2002- Sep. 2006), Senior Technical Office Engineer, Projects management department. • Bibiotheca Alexandrina, HAZ Marble, Egypt, (1998 – 2002), Project Coordinator-External Stone Cladding and internal works. • Kajima Corporation. National ANSDK – Alexandria (1995-1998), Assistant Technical office Engineer- Project : Extention Project for steel .	
Licenses/Registration:	• Egypt	
Selected Publications and Recent Research:	• M.Mohamed, A.Nayer, (Aug. 2018),"On Wind Catcher Integration in Contemporary Buildings in Jeddah" EQA - International Journal of Environmental Quality. [S.l.], v. 32, p. 1-14, Aug. 2018. ISSN 2281-4485. • G. Al Alawi, Aida Nayer,(2018) "Toward Walkable Neighborhoods: The Case of Al-Zahra District", Architecture and Urban Resiliency, MIC 2018, Effat University, Jeddah, KSA. • A.Nayer, R.Alsalamoni, (2017). "Potential of Adaptive Materials Configuration in Architectural Construction Field: Rice Husk Ash in hot arid built environment"; Architecture of the Future: Challenges and Visions, MIC 2017, Effat University, Jeddah, KSA. • A.Nayer, S. Badawi, (2016) "Heritage Preservation within public open spaces: the case of Qabel Street (Old Jeddah) Spacious Experience" ,Advanced Technologies for Sustainable Systems Selected Contributions, International Conference on Sustainable Vital Technologies in Engineering and Informatics, BUE ACE1, Cairo, Egypt • A. Nayer, (2016), "Comprehensive Urban Management Towards Creation of New Generation of Egyptian Cities: The Case of New El Alamein City, Egypt.", 1st International Conference on Urban Planning in Niš - Faculty of Civil Engineering and Architecture, University of Niš and Urban Planning Cluster, Serbia- 1st International Conference on Urban Planning – ICUP 2016. • S.Badawi, A.Nayer, (2016), "Jeddah City as A Contemporary Gateway: New Vision for City Smart Growth Management", International Conference on "Green Urbanism (GU) and the 2nd Architecture Week, Rome, Italy. • A.Nayer, D. Taha, (2016), "Towards Jeddah Smart City: Assessing People Perception Of Spacious Quality Indicators In Open Spaces", REALCORP conference, Hamburg, Germany, SMART ME UP 2016. 21st International Conference on Urban Planning and Regional Development in the Information Society.	

	• Research Project: Co-Investigator, "Investigating the adaptability of the traditional building techniques in Jeddah's new residential buildings"- KACST, King Abdulaziz City for Science and Technology General Directorate of Research Grants Programs. Grant: 2015-2017 • Research Project: Principal Investigator, "Spatial Consciousness Assessment Using Wearable Technology; Case Study: A responsive sense of place, Jeddah Cornice development" -RCI, EFFAT University, Grant November 2015- November 2016, Accomplished 2016
Professional Memberships:	• Member of the Egyptian Engineering Syndicate, since 1995 • Member of Architecture Society in Egypt, since 2013 • PMI Project Management Institute Member

Name: Dr. Abdel-moniem El-Shorbagy	
Courses Taught:	• ARCH 232 History of Islamic Architecture • ARCH 341 Theory of Architecture • ARCH 350 Structure in architecture-1 • ARCH 351 Structure in architecture-2 • ARCH 408 Architecture Design Studio • ARCH 446 Comparative Architectural Thoughts • ARCH 454 Mechanical, Electrical, and Safety Systems • ARCH 571 Capstone research preparation • ARCH 572 Capstone project
Educational Credentials:	• Ph.D. in Art History, University of Canterbury, Christchurch, March,2001. • MA. in Art History, University of Canterbury, Christchurch, June,1997. • Dip.Arch. in Architectural Engineering, Ain Shams University, Faculty of Engineering, July,1990 • B.Sc. in Architectural Engineering, Cairo University, Faculty of Engineering, July,1977.
Teaching Experience:	• Full time Assistant Professor (2007 – Present), Effat University, Jeddah, KSA • Part time Assistant Professor (2002 - 2006), Higher Technological Institute, 10th of Ramadan (HTI), Egypt. • Part time Assistant Professor (2003 - 2004), Thebes Academy, Cairo, Egypt • Visiting Lecturer (2000 - 2001), University of Canterbury, New Zealand
Professional Experience:	• Founder and Chair, Site for Architecture and Design (1984 - 1995), Cairo, Egypt • Architect, Architectural Group Office (1978 - 1984) • Architect, Inter-Consult-Professor Ali Raafat (1977 – 1978), Cairo, Egypt
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• Abdel-moniem El-Shorbagy (2017), Hassan Fathy: The Language of Traditional Architecture. Lambert Academic Publishing, Germany. • Abdel-moniem El-Shorbagy (2017), Hassan Fathy: The Power of Belief. Lambert Academic Publishing, Germany. • Abdel-moniem El-Shorbagy (2016), Twentieth Century Egyptian Architects. Noor Publishing, Germany. • Abdel-moniem El-Shorbagy (2011), "The Concept of Optimum and Minimal Configuration and the Philosophy of Traditional Town Planning". International Journal of Civil & Environmental Engineering IJCEE-IJENS Vol:11 Issue: 06. • Abdel-moniem El-Shorbagy (2010), "Traditional Islamic-Arab House: Vocabulary And Syntax". International Journal of Civil & Environmental Engineering IJCEE-IJENS Vol:10 Issue: 04.

	• Abdel-moniem El-Shorbagy (2010), "Design with Nature: Windcatcher as a Paradigm of Natural Ventilation Device in Buildings". International Journal of Civil & Environmental Engineering IJCEE-IJENS Vol:10, Issue: 3.
Professional Memberships:	• Member of the Egyptian Engineering Syndicate (EES), Egypt, since 1977

Name: Dr. Alaa Abdou	
Courses Taught:	• ARCH 455 Working Drawings • ARCH 572 Capstone Project • ARCH 408 Architecture Design Studio-8 • ARCH 464 Introduction to Interior Design • ARCH 566 Project management • ARCH 557 Professional practice • ARCH 571 Capstone preparation
Educational Credentials:	• Ph.D. Project & Design management, University of Liverpool, UK, 2007 • Master of Architecture (M. Arch). Illinois Institute of Technology (IIT), IL, USA, 1995 • Master Certificate in Construction Management (MCCM), IIT, IL, USA, 1995 • Bachelor of Science in Architectural Engineering, Alexandria University, Egypt, 1988
Teaching Experience:	• Assistant Professor (2018 - Present), Effat University, Saudi Arabia • Assistant Professor (2016- 2018), AlHosn University, Abu Dhabi, UAE • Assistant Professor (2008- 2016), United Arab Emirates University, UAE • Instructor (1997- 2008), United Arab Emirates University, UAE.
Professional Experience:	• Project Architect (1995- 1996), Cegelic, France JVl with QEA, Doha, Qatar, • Project/Design Manager (1992- 1993), Agri Consult VBB, JVl with QEA, Doha, Qatar. • Senior Architect (1991-1992), Architecture & Planning Group (APG), Alexandria, Egypt. • Senior Architect (1990-1991), Engineer Consultant ZAKI M. FARSY, Saudi Arabia. • Architect (1988-1990), AG Architecture Consultant, Alexandria, Egypt.
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• Abdou, A. (2017) Performance evaluation of In Vitro Fertilization unit in the UAE: the end user perspective, Proc. of The fifth Annual International Conference on Architecture and Civil Engineering (ACE 2017), 8-9 May, Singapore, 399-406. • Alkhatib, O.J. & Abdou, A. (2017): An Ethical (Descriptive) Framework for Judgment of Actions and Decisions in the Construction Industry and Engineering–Part I, Science and Engineering Ethics, Springer journal. • Al Saadi, R. and Abdou, A. (2016): Factors critical for the success of public–private partnerships in UAE infrastructure projects: experts' perception, International Journal of Construction Management, Taylor & Francis Journal. • Abdou, A., Haggag, M. and Al Khatib, O. (2015) Use of Building Defect Diagnosis in Construction Litigation: Case Study of a Residential Building, Journal of Legal Affairs and Dispute Resolution in Engineering and Construction, ASCE journal. • Abdou, A., Lewis, J., & Al Zarooni, S. (2013). The evaluation of a web-based decision support system for healthcare project appraisal. Int. J. Project Organization and Management, InderSiceince publisher journal, 5(1/2), 69–90. • Al Zarooni, S., Abdou, A., & Lewis, J. (2011). Improving the Client Briefing for UAE Public Healthcare Projects: Space Programming Guidelines. Architectural Engineering and Design Management, 7(4), 251–265, Taylor & Francis Journal.
Professional Memberships:	• AIA Associate Member, the American Institute of Architects (AIA), USA • Member, Project Management Institute (PMI- AGC) • Member, Egyptian Syndicate of Engineers (ESE) • Member, Society of Egyptian Architects (SEA)

Name: Dr. Haitham Samir	
Courses Taught:	• ARCH 305 Architecture Design Studio-5 • ARCH 408 Architecture Design Studio-8 • ARCH 454 Mechanical, Electrical and Safety systems
Educational Credentials:	• Ph.D. in Architectural Engineering, Cairo University, Faculty of Engineering, June-2008. • M.Sc. in Heritage economics, Catania University, Catania, Italy. November-2007 • M.Sc. in Architectural Engineering, Cairo University, Faculty of Engineering, Feb.-2001. • B.Sc. in Architectural Engineering, Cairo University, Faculty of Engineering, July-1995.
Teaching Experience:	• Full time Assistant Professor (2016 – Present), Effat University, Jeddah, KSA • Full time Assistant Professor (2008 – 2015), Modern Academy for Engineering and Technology, Cairo, Egypt • Lecturer (2014 – 2015), French University in Egypt, Teaching post graduate students in cultural heritage management master program, Cairo, Egypt • Part time Assistant Prof. (2014 – 2015), Arab Academy for Science, Technology & Maritime Transport, Cario, Egypt • Part time Assistant Prof. (2011 – 2013), October University for Modern Sciences and Arts, Giza, Egypt. • Part time Assistant Prof. (2009 – 2012), International Academy for Engineering & Media Science IAEMS, Giza, Egypt. • Part time Assistant Prof. (2008 – 2011), Institute of Aviation Engineering And Technology, Cairo, Egypt. • Full time Teaching Assistant (1996 – 2004), The High Institute of Architectural Engineering and Business Administration Technology, Giza, Egypt.
Professional Experience:	• Partner of a private studio for Architecture, Landscaping and Interior Design. Designed several local architectural projects.
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• Attalla H., Abdel-Kader M. and Samir H. (2013), "The Aga Khan multidisciplinary experience in Cairo, Egypt: a different view" in: Rizzo I., Mignosa A. (eds.), The Handbook in economics of cultural Heritage, Edward Elgar.
Professional Memberships:	• Member of the Egyptian Engineering Syndicate. • Member of the Egyptian Association of Real Estate Appraisers.

Name: Dr. Ahmed M. Refaat		
Courses Taught:	• ARCH 102 Architecture design studio 2 • ARCH 204 Architecture design studio 4 • ARCH 306 Architecture design studio 6 • ARCH 340 Research Methods • ARCH 342 Urban Design • ARCH 444 Housing and Economic • ARCH 571 Capstone preparation • ARCH 572 Capstone Project	• PGYY 004 Research Project • UD 643 Advance Urban Design Computation (space syntax) • UD 612 Site and Landscape design • UD 690 Urban design thesis 1 • UD 692 Urban design project
Educational Credentials:	• Ph.D. in Urban design, School of the Built Environment, The University of Manchester, UK., June-2009. • M.Sc. in Architecture, Department of Architectural Engineering, Assiut University, Egypt, January-2002 • B.Sc. in Architectural Engineering, Department of Architectural Engineering, Assiut University, Egypt, July-1996.	

Teaching Experience:	• Full time Assistant Professor (2015 – Present), Effat University, Jeddah. • Full time Assistant Professor (2009 – 2015), Department of Architectural Engineering, Faculty of Engineering, Assiut Universiy, Egypt • Full time Assistant Professor (2009 – 2015), Interior and architectural design program, Faculty of Engineering, Assiut Universiy, Egypt • Secondment Assistant Professor (2009 – 2010), Department of Architecture, Faculty of Engineering, Al-Azhar University, Qena City, Egypt • Secondment Assistant Professor (2009 – 2010), Department of Architecture, Faculty of Engineering, South Valley University, Aswan City, Egypt • Full time Teaching Assistant (1996 – 2005), Department of Architecture, Faculty of Engineering, South Valley University, Aswan City, Egypt.
Professional Experience:	∗ Design several private and public buildings
Licenses/Registration:	∗ Egypt
Selected Publications and Recent Research:	∗ Mohamed, Ahmed M. R. M. (2018), "Evaluating the spatial structure resilience of Jeddah Neighbourhoods". The 2nd Memaryat International Conference. Jeddah, KSA ∗ Mohamed, Ahmed M. R. M. (2017), "The experience of The Old Jeddah development: An example of Urban Primacy Control". International Conference of Urban Primacy and Traditional Urban fabric in Sultanate of Oman, Omani Study Center, Sultan Qaboos university, Muscat, Oman ∗ Mohamed, Ahmed M. R. M. (2017), Sustainable transportation modes in Jeddah, KSA, An exploratory study. The First Memaryaat International Conference. Jeddah, KSA ∗ Sayed, Ayman, AbdAlsamea, Mohamed & Mohamed, Ahmed M. R. M., (2016), " Customising the Egyptian City for Pedestrian as a sustainable approach". The 3rd International Conference for Environmental Studies, Hughada, Egypt ∗ Mohamed, Ahmed M. R. M. (2014), "The Spatial Configuration of Formal Housing Types in New Assiut City", Egypt. Environment and Design, "Re-Thinking Residential Environments" Istanbul, Turkey
Professional Memberships:	∗ Member of The International Network for Traditional Building, Architecture & Urbanism (INTBAU), since 2006 ∗ Member of Egyptian Society for Scientific Researcher, (NGO), since 2002 ∗ Registered Architect, Egypt Engineers Syndicate, Assiut, Egypt, since 1996

Name: Dr. Lobna Abdel-Aziz Ahmed Mostafa	
Courses Taught:	• ARCH 557 Professional Practice • ARCH 571 Capstone Preparation • ARCH 572 Capstone Project • UD 615 Urban Sociology- Master 1
Educational Credentials:	• Ph.D. Architectural, Faculty of Engineering, Cairo University, July,2009. • M.Sc. Architectural Engineering, Faculty of Engineering, Cairo University, June, 2001. • B.Sc. in Architectural, Faculty of Fine Arts, Helwan University, July,1994.
Teaching Experience:	• Full time Assistant Professor (2015 – Present), Effat University, Jeddah, KSA. • Full time Assistant Professor (2009 – Present), Architecture Dep., Faculty of Fine Arts, Menia University, Egypt. • Full time Assistant Professor (2012 – 2015), Dep. of Architecture, Faculty of Engineering, International Academy for Engineering and Media Science IAEMS, Media City, Cairo, Egypt. • Part time Assistant Prof. (2011 – 2012), The High Institute of Architectural Engineering and Business Administration Technology – 6th of October City. • Part time Assistant Prof. (2009 – 2010), Architecture Dep., Engineering Section, New Cairo Academy, Cairo.

	• Full time Teaching Assistant (1995 – 2008), Architecture Dep., Faculty of Fine Arts, Menia University, Egypt.
Professional Experience:	• Head of Department of Urban Design (2012 – 2015), CEGMAN Consulting Engineering Group and House of Expertise, Cairo. • Partner of a private Amaaer office for Architecture, Urban, Landscaping and Interior Design. Designed several local architectural projects.
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• Lobna A. Mostafa, (2016), "Urban and social impacts of Waterfronts Development, case study: Jeddah Corniche", Procedia Environmental Sciences, ELSEVIER, Volume 37, 2017, Pages 205-221. • Mohammed S. Alsurf, and Lobna A. Mostafa, (2016), "Will the Saudi's 2030 Vision Raise the Public Awareness of Sustainable Practices?", Procedia Environmental Sciences, ELSEVIER, Volume 37, 2017, Pages 514-527.
Professional Memberships:	• Member of the Egyptian Engineering Syndicate, (EES), Egypt • Member of the Egyptian Architects' Society, Egypt

Name: Dr. Rahma Doheim	
Courses Taught:	• ARCH 101 Architecture Design Studio-1 • ARCH 102 Architecture Design Studio-2 • ARCH 203 Architecture Design Studio-3 • ARCH 204 Architecture Design Studio-4 • ARCH 305 Architecture Design Studio-5 • ARCH 408 Architecture Design Studio-8 • ARCH 252 Building Construction • ARCH 455 Working Drawings • ARCH 571 Capstone Project Preparation • ARCH 572 Capstone Project
Educational Credentials:	• Ph.D. in Architecture and the Built Environment, University of Ulster, UK. Feb. 2012. • M.Sc. in Safety Management, West Virginia University, WV, USA. May 2005. • M.Sc. Courses in Architecture, Arizona University, AZ, USA, May 2003. • B.Sc. in Architectural Engineering, Assiut University. July 1999.
Teaching Experience:	• Assistant Professor (2012 – Present), Effat University, Jeddah. • Teaching Assistant (2009 – 2011), School of Architecture & Design. University of Ulster, UK. • Lecturer (2005 –2008), Department of Architectural Engineering. Assiut University, Egypt. • Teaching Assistant (1999 – 2000), Department of Architectural Engineering, Assiut University, Egypt.
Professional Experience:	• PhD Researcher (2008- 2012). University of Ulster, UK. • Senior designer (2007-2008). BONIAN Architectural firm, Egypt • Research Assistant (2003-2005). West Virginia University, USA. • Architect (Feb-Aug.2001), Herberger Centre for Design Excellence, Arizona State University, USA.
Licenses/Registration:	• Egyptian Engineers Syndicate (EES), Egypt. • Association of Egyptian Architects (AEA), Egypt.

Selected Publications and Recent Research:	• Yusof, N. A., Ishak, S. S. M., & Doheim, R. (2018), "Identifying factors for incorporating spatial data into BIM using the Delphi method", Construction Economics and Building, 18(3), 1-17. • Farag A.A. Doheim R. Badawi S. (2018), "Rating Sustainability at Effat University: Towards a Green Campus", The 2nd Memaryaat International Conference-MIC 2018, Jeddah, KSA • Doheim, R.; Yusuf, N. (2017), Creativity in design studio. Student-instructor perception. 2nd ARTEM Organizational Creativity and Sustainability International Conference. Nancy, France • Doheim, R., Yohanis, Y., Nadjai, A., & Elkadi, H. (2016), "Bridging the knowledge gap between fire engineers and building service engineers-Using the Analytic Hierarchy Process approach", Procedia Engineering, 145, 1144-1152. • Doheim, R. M., Yohanis, Y. G., Nadjai, A., & Elkadi, H. (2014), "The impact of atrium shape on natural smoke ventilation", Fire safety journal, 63, 9-16.
Professional Memberships:	• Member at the Charted Institute of Building Services Engineering (CIBSE), UK. • Member of the Egyptian Engineering Syndicate. • Association of Egyptian Architects (AEA), Egypt.

Name: Dr. Marwa Abouhassan

Courses Taught:	• ARCH 101 Architecture Design Studio-1 • ARCH 102 Architecture Design Studio-2 • ARCH 203 Architecture Design Studio-3 • ARCH 204 Architecture Design Studio-4 • ARCH 305 Architecture Design Studio-5 • ARCH 408 Architecture Design Studio-8 • ARCH 571 Capstone Project Preparation • ARCH 572 Capstone Project • ARCH 464 Interior Design • ARCH 120 Freehand Drawings • ARCH 455 Working Drawings • ARCH 462 Urban Conservation	• INTD 201 Interior Design Studio 3
Educational Credentials:	• Ph.D. in Architectural Engineering, Alexandria University, Faculty of Engineering, 2012. • M.Sc. in Architectural Engineering, Alexandria University, Faculty of Engineering, 2004. • B.Sc. in Architectural Engineering, Alexandria University, Faculty of Engineering, 1999.	
Teaching Experience:	• Full time Assistant Professor (2013 – Present), Effat University, Jeddah. • Full time Assistant Professor. (2012 – 2013), 6 October University for Modern Sciences and Arts, Giza, Egypt. • Full time Lecturer. (2006 – 2012), 6 October University for Modern Sciences and Arts, Giza, Egypt. • Part time Teaching Assistant (2003 – 2004), 6 October University, Giza, Egypt. • Part time Teaching Assistant (2000 – 2003), Arab Academy for Science and Technology, Alexandria, Egypt • Part time Teaching Assistant (1999 – 2002), Alexandria University, Alexandria, Egypt.	
Professional Experience:	• Architect (2000 – 2006), Engineering Center, Alexandria University, Alexandria, Egypt. • Architect (2000 – 2001), Dr. Mostafa Gabr, Architectural Engineering office, Alexandria, Egypt. • Architect (1999 – 2000), Prof. Dr. EzAldin Zaghloul, Architectural Engineering office, Alexandria, Egypt.	
Licenses/Registration:	• Egypt	

Selected Publications and Recent Research:	• Abouhassan Marwa., Moussa Rasha. ,(2018), "Resiliency of Places: An Adaptive Approach for Shaping Urban Waterfront", 2nd Memaryate International Conference-MIC 2018, Jeddah, KSA • Abouhassan Marwa (2017), "Urban Transport System Analysis" 23th International Conference on Urban Transport and the Environment, Rome, Italy. • Abouhassan Marwa (2017), "Controlling the Changes in the Facades of Heritage Buildings" 1st Memareyat International Conference, Jeddah, KSA. • Nayer A., Abouhassan M. (2015), "Sustainability assessment in the built environment of Lake Mariout, Alexandria city, Egypt: factors and a decision framework" 7th international Conference on sustainable development & planning, Istanbul, Turkey.
Professional Memberships:	• Member of the Egyptian Engineering Syndicate. • Member of Egyptian Architects Association (EAA), Egypt.

Name: Dr. Samaa Badawi

Courses Taught:	• ARCH 306 Architecture Design Studio-6 • ARCH 342 Urban Design • ARCH 343 Introduction to Landscape	• ENV 301 Environmental Design Studio-5 • ENV 302 Environmental Design Studio-6 • ENV 402 Environmental Design Studio-8 (Capstone)
Educational Credentials:	• Ph.D. Architecture, Mansoura University, Faculty of Engineering, 2013 • M.Sc. Urban, Mansoura University, Faculty of Engineering, 2006 • B.Sc. Urban, Mansoura University, Faculty of Engineering, 2002	
Teaching Experience:	• Full time Assistant Professor (Fall 2014 – Present), Effat University, Jeddah, KSA. • Full time Assistant Professor (2013 – 2014), Mansoura University, Egypt and Visiting Assistant Professor (2013 – 2014), Misr Academy for Engineering, Mansoura, Egypt. • Lecturer (2006 – 2013), Mansoura University, Egypt. • Demonstrator (2003-2006), Mansoura University, Egypt.	
Professional Experience:	• Consultant (2011 – 2013), at Researches and Technical Consultation Centre, Mansoura University, Egypt. • Designer (2004 – 2005), Tarek Saffan office for Engineering Consultation, Mansoura, Egypt. • Designer (2002 – 2003), Al Shambaky Office for Architecture and Interior Design, Mansoura, Egypt.	
Licenses/Registration:	• Egypt	
Selected Publications and Recent Research:	• Badawi, Samaa, (2018), Public Art from Symbolism to Randomness: The Missed Role of Art in Urban Open Spaces, Cities' Identity Through Architecture and Arts – 2nd Edition, from the 28 to the 29 of September 2018 Cairo, Egypt. • Alshimaa A. Farag, Rahma M. Doheim and Samaa Badawi, (2018), Rating Sustainability at Effat University: Towards a Green Campus, The 2nd International Conference on: Green Urbanism from 5-7 December 2018, Rome, Italy. • Badawi, Samaa, (2018), Big Data and Teaching Development in Higher Education, , The international conference on Big Data and Education (ICBDE), from 9- 11 March 2018, Honolulu, Hawaii, United States. • Badawi, Samaa & Shehata, Ahmed, (2017), Sustainable Urban Heritage Conservation Strategies- Case Study of Historic Jeddah District, The international conference on Cities Identity through architecture and art (CITAA), from 11th -13th of May 2017, Helwan University, Cairo, Egypt, • Nayer, Aida & Badawi, Samaa, (2016), Heritage Preservation within public open spaces: the case of Qabel Street (Old Jeddah) Spacious Experience, The international conference on sustainable vital technologies in engineering and informatics, BUE ACE, from 7th -9th November 2016, Cairo, Egypt.	

	• Badawi, Samaa, (2016), Sustainable approach for developing local mixed- use streets Case study Beit Al Maqdis Street in Jeddah, , International Conference – Green Urbanism GU, from 12- 14th October 2016, Italy, Rome.
Professional Memberships:	• Member of the Egyptian Engineering Syndicate (EES), Egypt, since 2002

Name: Dr. Rasha Moussa		
Courses Taught:	• ARCH 407 Architecture Design Studio-7 • ARCH 306 Architecture Design Studio-6 • ARCH 204 Architecture Design Studio-4 • ARCH 203 Architecture Design Studio-3 • ARCH 102 Architecture Design Studio-2 • ARCH 101 Architecture Design Studio-1 • ARCH 252 Building Construction • ARCH 342 Urban Design • ARCH 455 Working Drawings • ARCH 463 Historic Building Restoration	• DESN 252 Material and Methods 2
Educational Credentials:	• Ph.D. Architecture, Cairo University, Faculty of Engineering, 2014 • M.Sc. Architecture, Cairo University, Faculty of Engineering, 2010 • B.Sc. Architecture, Ain Shams University, Faculty of Engineering, 2004	
Teaching Experience:	• Full time Assistant Professor (Fall 2015 – Present), Effat University, Jeddah, KSA • Full time Assistant Professor (2014 – 2015), Modern Academy for Engineering and Technology, Cairo, Egypt Visiting Assistant Professor (2014 – 2015), Arab Academy for Science and Technology and Maritime Transport, Cairo, Egypt • Lecturer (2010 – 2014), Modern Academy for Engineering and Technology, Cairo, Egypt • Visiting lecturer (2010 – 2014), Arab Academy for Science and Technology and Maritime Transport, Cairo, Egypt • Teaching Assistant (2004-2010), Modern Academy for Engineering and Technology, Cairo, Egypt • Visiting Teaching Assistant (2004-2010), Arab Academy for Science and Technology and Maritime Transport, Cairo, Egypt	
Professional Experience:	• Architect (2004 – 2009), at ABDEEN CONSULTANT, Cairo, Egypt • Freelance Architect (2007 – 2015), Cairo, Egypt	
Licenses/Registration:	• Egypt	
Selected Publications and Recent Research:	• Moussa, R., (2018), "King Abdullah Economic City: The Growth of New Sustainable City in Saudi Arabia", Chapter in a Book "New Cities and Community Extensions in Egypt and the Middle East", Springer International Publishing AG, part of Springer Nature 2019 51, https://doi.org/10.1007/978-3-319-77875-4_4 • Moussa,R. & Abouhassan,M.,(2018), "Resiliency of Places: An Adaptive Approach for Shaping Urban Waterfront", The 2nd Memaryate International Conference-MIC 2018, Jeddah, KSA • Moussa,R., (2017)," The Impact of Local Festivals and Social Dimensions on Urban Spaces Transformations, Al Azhar's 14th International Conference On: Engineering, Architecture and Technology– AIEC 2017, Cairo, Egypt. • Moussa,R. & Farag. A, (2016), "The Applicability of LEED of New Construction (LEED-NC) in the Middle East", International Conference – Green Urbanism, GU 2016 . Published in Procedia Environmental Sciences, Rome, Italy • Moussa, R., (2014), "Appropriating humanitarian inputs to raise the efficiency of the design of public parks, he scientific journal, Faculty of Engineering, Mataria, Helwan University, Cairo, Egypt.	

	• Moussa, R., (2014), "Humanitarian needs as influential in the design of common urban spaces in coastal tourist villages,The scientific journal, Faculty of Engineering, Mataria, Helwan University, Cairo, Egypt
Professional Memberships:	• Member of Egyptian Architects Association (EAA), Egypt, since 2009 • Member of the Egyptian Engineering Syndicate (EES), Egypt, since 2004

Name: Dr. Ahmed Waseef	
Courses Taught:	• ARCH 352 Building Structure and Materials • ARCH 369 Approved course "Creativity and Innovation" • ARCH 572 Capstone Project • ARCH 203 Architecture Design Studio-3 • ARCH 340 Research Method in Architecture and Urban Design
Educational Credentials:	• Ph.D. in Architectural Engineering, Port Said University, Faculty of Engineering, August-2014. • M.Sc. in Architectural Engineering, Port Said University, Faculty of Engineering, April-2008. • B.Sc. in Architectural Engineering, Port Said University (formerly: Suez Canal university – Port Said branch), Faculty of Engineering, August-2002.
Teaching Experience:	• Full time Assistant Professor (2018 – Present), Effat University, Jeddah. • Full time Assistant Professor (2014 – 2018), Port Said University, Architectural Engineering and Urban Planning Dept., Port Said. • Demonstrator (2002 – 2008), Port Said University, Architectural Engineering and Urban Planning Dept., Port Said. • Lecturer (2008 – 2014), Port Said University, Architectural Engineering and Urban Planning Dept., Port Said. • Part time Assistant Professor (2014 – 2018), Arab Academy for Science, Technology & Maritime Transport. • Part time Lecturer. (2008 – 2014), High Institute for Engineering & Technology, El-Arish, Egypt.
Professional Experience:	• Team Leader of architectural dept. in Motahedoun office for Consulting & Engineering Services. • Design of several private and public Projects.
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• Usama A. Nassar, Hosam S. El-Samaty, Waseef A., (2018), "Identifying Urban Factors Affecting Resilience Strategies To Withstand Sea Level Rise In Coastal Cities" in proceedings of the 2nd international conference of Memareyat MIC 2018. • Nassar U., El-Samaty, H., Waseef A., (2017), "Water Sensitive Urban Design: A Sustainable Design Approach to Reform Open Spaces in Low-Income Residential Rehabilitation Projects in Egypt." in: UPLanD Journal of urban planning, landscape & environmental design. Vol. 2, No. 3. • Nassar U., El-Samaty, H., (2017), "Towards A New Classification For Responsive Kinetic Facades" in proceedings of the 1st international conference of Memareyat MIC 2017.
Professional Memberships:	• Registered Architect, Egypt Engineers Syndicate, Port Said, Egypt, since 2002 • Member of Engineering Consulting Center of Faculty of Engineering, Port Said University.

Name: Dr. Hossam Salah Elsamaty	
Courses Taught:	• ARCH 408 Architecture Design Studio-8 • ARCH 444 Housing & Economics • ARCH 571 Capstone Project Preparation
Educational Credentials:	• Ph.D. in Architectural Engineering, Port Said University, Faculty of Engineering, August-2014. • M.Sc. in Architectural Engineering, Port Said University, Faculty of Engineering, April-2008. • B.Sc. in Architectural Engineering, Port Said University (formerly: Suez Canal university – Port Said branch), Faculty of Engineering, August-2001.
Teaching Experience:	• Full time Assistant Professor (2018 – Present), Effat University, Jeddah. • Full time Assistant Professor (2014 – 2018), Port Said University, Architectural Engineering and Urban Planning Dept., Port Said. • Demonstrator (2001 – 2008), Port Said University, Architectural Engineering and Urban Planning Dept., Port Said. • Lecturer (2008 – 2014), Port Said University, Architectural Engineering and Urban Planning Dept., Port Said. • Part time Assistant Professor (2014 – 2018), Arab Academy for Science, Technology & Maritime Transport. • Part time Lecturer. (2008 – 2014), High Institute for Engineering & Technology, El-Arish, Egypt.
Professional Experience:	• Team Leader of architectural dept. in Makkah office for Consulting & Engineering Services. • Design of several private and public Projects.
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• Usama A. Nassar, Hosam S. El-Samaty, Mostafa Elzeni (2018), "Place Syntax: An "Optimal Area" Selection Methodology Proposed for Pedestrianization" in: Spaces And Flows: An International Journal Of Urban And Extraurban Studies, Volume 9, Issue 3. • Nassar U., El-Samaty, H., Waseef A., (2017), "Water Sensitive Urban Design: A Sustainable Design Approach to Reform Open Spaces in Low-Income Residential Rehabilitation Projects in Egypt." in: UPLanD Journal of urban planning, landscape & environmental design. Vol. 2, No. 3. • Nassar U., El-Samaty, H., (2014), "Transition Space in Higher-Education Buildings as an Efficient "Behavior Setting" Model" in: International Journal of Innovative Research in Science, Engineering and Technology, IJIRSET. vol. 3, Isssue 1.
Professional Memberships:	• Registered Architect, Egypt Engineers Syndicate, Port Said, Egypt, since 2001 • Member of Engineering Consulting Center of Faculty of Engineering, Port Said University.

Name: Dr. Alshimaa A. Farag		
Courses Taught:	• ARCH 306 Architecture Design Studio-6 • ARCH 407 Architecture Design Studio-7 • ARCH 342 Urban Design • ARCH 343 Introduction to Landscape Arch. • ARCH 340 Research Method in Arch. and Urban Design	• UD 614 Urban Design Research Methods

Educational Credentials:	• Ph.D. in Architectural Engineering, Zagazig University, Faculty of Engineering, 2016. • M.Sc. in Architectural Engineering, Cairo University, Faculty of Engineering, Feb., 2005. • B.Sc. in Architectural Engineering, Zagazig University, Faculty of Engineering, July,2001.
Teaching Experience:	• Full time Assistant Professor (2016 – Present), Effat University, KSA. • Full time Lecturer (2013 – 2015), Effat University, KSA. • Full time Teaching Assistant (2005 – 2012), Zagazig University, Egypt. • Full time Instructor (2001 – 2004), Zagazig University, Egypt.
Professional Experience:	• Partner and Senior Architect (2018-2010) of Kayan Architectural and Interior Design Center, Zagazig, Egypt. Designed several local architectural projects. • Project Architect (2006-2007) at Site, Concept & Design, Giza, Egypt. Designed several local architectural projects.
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• Farag A.A. (2019), " The Story of NEOM City: Opportunities and Challenges". In: Attia S., Shafik Z., Ibrahim A. (eds) New Cities and Community Extensions in Egypt and the Middle East. Springer, Cham • Farag A. & Elrafey M. (2018), "Stimulating Enthusiasm in Architecture Pedagogy Female-Architecture school in Saudi Arabia", The 2018 WEI International Academic Conference, Boston, USA • Farag A.A. Doheim R. Badawi S. (2018), "Rating Sustainability at Effat University: Towards a Green Campus", The 2nd Memaryaat International Conference-MIC 2018, Jeddah, KSA • Farag A.A. (2017), "A User Definition of Near Home Open Space", EDRA48- Voices of Place: Empower, Engage, Energize, Madison, USA • Moussa R. & Farag. A.A. (2016), "The Applicability of LEED of New Construction (LEED-NC) in the Middle East", International Conference – Green Urbanism, GU 2016. Published in Procedia Environmental Sciences, Rome, Italy
Professional Memberships:	• Member of Environmental Design Research Association (EDRA), USA, since 01/2016 • Member of U.S. Green Building Council (USGBC), USA, since 07/2011 • Member of Green Building Certification Institute (GBCI), USA, since 07/2011 • Member of Egyptian Engineers Syndicate (EES), Egypt, since 11/2001

Name: Dr. Mohammed S. Al Surf	
Courses Taught:	• ARCH 102 Architecture Design Studio- 2 • ARCH 204 Architecture Design Studio- 4 • ARCH 305 Architecture Design Studio- 5 • ARCH 407 Architecture Design Studio- 7 • ARCH 408 Architecture Design Studio- 8 • ARCH 240 Architecture, Culture & Environment • ARCH 444 Housing & Economics • ARCH 368 Special topics in Architecture (Green Buildings) • ARCH 453 Energy & Design
Educational Credentials:	• Ph.D. in Sustainable Architectural, Queensland University of Technology, Faculty of Engineering, 2014. • M.Sc. in Project Management, Queensland University of Technology, Faculty of Engineering, 2012. • B.Sc. in Architectural, King Fahd University of Petroleum and Minerals, College of Environmental Design, 2007.
Teaching Experience:	• Part time Assistant Professor (Sep. 2018 – Present), Effat University, KSA • Full time Assistant Professor (Aug. 2015 – Aug. 2018), Effat University, KSA.

Professional Experience:	• Project Manager, Hazim Consulting. May 2015 – Aug 2015 • Architect, South Eagle Constrution Co. Jul 2007 – Sep 2008
Licenses/Registration:	• Saudi Arabia
Selected Publications and Recent Research:	• Al Surf , M. (2017), "Will the Saudi's 2030 Vision Raise the Public Awareness of Sustainable Practices?" Procedia Environmental Sciences, Vol. 37, Page: 514-527. • Al Surf , M. (2014), "Case Study Analysis for the Development and Implementation of Sustainable Housing in the Kingdom of Saudi Arabia" In the 19th Asian Real Estate Society Conference, Gold Coast, Australia. • Al Surf , M. (2014), "The Role of the Saudi Government and the Saudi Building Code in Implementing Sustainable Housing Construction in Saudi Arabia" In the 20th Pacific Rim Real Estate Society Conference, Christchurch, New Zealand. • Al Surf , M. (2013), "Saudi Arabia's Sustainable Housing Limitations: The Experts' Views" Smart and Sustainable Built Environment, Vol. 2 Iss: 3. • "Al Surf , M. (2013), "Integration of Saudi Arabia's conservative Islamic culture in sustainable housing design" In Kajewski, Stephen L., Manley, Karen, & Hampson, Keith D. (Eds.) Proceedings of the 19th CIB World Building Congress, Queensland University of Technology, Brisbane Convention & Exhibition Centre, Brisbane, QLD. • "Al Surf , M. (2012), Analyzing the literature for the link between the conservative Islamic culture of Saudi Arabia and the design of sustainable housing" In 2nd International Conference Socio-Political and Technological Dimensions of Climate Change, University Putra Malaysia. • Al Surf , M. (2011), "Challenges facing sustainable housing in Saudi Arabia: a current study showing the level of public awareness" In The 17th Pacific Rim Real Estate Society Conference, Bond University, Gold Coast, QLD.
Professional Memberships:	• Member of the U.S. Green Building Council (USGBC) • Member of the Pacific Rim Real Estate Society (PRRES) • Member of the Asian Real Estate Society (AsRES) • Member of the Saudi Council of Engineers (SCE) • Member of the Project Management Institute (PMI)

Name: Dr.Yassmein Hamdy Mohamed Abdalla	
Courses Taught:	• ARCH 204 Architecture Design Studio- 4. • ARCH 446 Comparative Architectural Thoughts.
Educational Credentials:	• Ph.D. Architectural Engineering, Cairo University, Faculty of Engineering, July,2014. • M.Sc. Architectural Engineering, Cairo University, Faculty of Engineering, July,2007. • B.Sc. Architectural Engineering, Cairo University, Faculty of Engineering, July 2003.
Teaching Experience:	• Part Time Assistant Professor, (2018 - Present), Effat University, Jeddah, KSA • Full Time Lecturer, (2009 - 2010), Effat University, Jeddah, Saudi Arabia • Part Time Lecturer, (2004 - 2008), Architectural Department, Faculty of Engineering, 6th of October University, Egypt.
Professional Experience:	• Architect (2007-2008), Architectural Department, EHAF Consulting Engineers, Cairo Headquarter, Egypt. • Architect (2005-2007), Architectural Department at "LOUTS for Investments" Cairo, Egypt as a part of "CEG" Consulting Firm, Qatar.
Licenses/Registration:	• Egypt.

Selected Publications and Recent Research:	• Abdalla Y, (2018), "Rereading Urban History, Cosmic Heroes in Traditional Communities, Tangible – Intangible Heritage(s) - Design, Social and Cultural Critiques on the Past. Present and the Future, Amps Conference, University of East London, London, UK. • Abdalla Y, (2018), "Public Space & urban Resiliency in Developing Countries", Mamaryat International Conference, Effat University, Jeddah, Saudi Arabia. • Abdalla Y, (2018), "Saints' Heritage & the Egyptian Urban Forms through History", Conservation of Architectural Heritage (CAH) conference" Luxor/ Aswan, Egypt.
Professional Memberships:	• Member of the Egyptian Engineering Syndicate (EES), Egypt, since 2003

Name: Dr. Marwa Abd Elkader El Gendy	
Courses Taught:	• ARCH 408 Architecture Design Studio-8 • ARCH 453 Energy and Design • ARCH 101 Architecture Design Studio-1 • DESN 431 Contemporary Issues in Design
Educational Credentials:	• Ph.D. in Architectural Engineering, Ain Shams, University, Faculty of Engineering, 2017. • ATI Course, University of East London, The School of Architecture, Computing & Engineering, Docklands Campus, London- UK (Architecture: Performative Design for digital manufacturing) • M.Sc. in Architectural Engineering, Ain Shams University, Faculty of Engineering, 2010. • B.Sc. in Architectural Engineering, Ain shams University, Faculty of Engineering, July,2005.
Teaching Experience:	• Assistant Professor (2018 – Present), Effat University, KSA. • Lecturer (2017 – 2018), Effat University, KSA. • Teaching Assistant (2005 – 2008), Modern Academy for Engineering & Technology (Architectural Department), Egypt. • Researcher Assistant (2006-2007) National Research Center (NRC), Egypt
Professional Experience:	• Designer Architect (2006-2010), DMA Consultants, Cairo, Egypt. • Architectural Designer (2005-2006), Centre of Planning & Architectural Studies CPAS, Cairo, Egypt.
Licenses/Registration:	• Egypt
Selected Publications and Recent Research:	• El Gendy, M, (2016), "Mathematics behind the Cell Bubble Structure to achieve Sustainability", International Journal of Engineering Research and Technology (IJERT), Gandhinagar Gujarat, INDIA • El Gendy, M, (2016), "The power of codes to generate new forms in architecture", FUE International Conference on New Energy and Environmental Engineering (ICNEEE 2016), Cairo, Egypt. • El Gendy, M, (2008), "Smart Structure as Interactive Skeleton in Architecture", Architectural and Urban Planning Departments ARUP Conference 2008, Cairo - Egypt
Professional Memberships:	• Member of Egyptian Engineers Syndicate (EES), Egypt, since 11/2001

Name: Mrs. Hidaya Abbas	
Courses Taught:	• ARCH 232 History of Islamic Architecture • ARCH 362 Saudi Traditional Architecture • ARCH 368 Special Topics in Architecture
Educational Credentials:	• MA Islamic Art and Architecture, the American University in Cairo, Egypt, 2014 • BA Interior Design, Dar al-Hekma University, Jeddah, Saudi Arabia, 2010
Teaching Experience:	• Full time Lecturer (2014 – Present), Effat University, Jeddah.
Professional Experience:	• Teaching assistant, the American University in Cairo, Egypt, Spring 2013 and Fall 2013. • Interior designer, Makan International Architectural Consultation, Jeddah, 2010. • Interior designer trainee and Islamic art and architecture researcher, Amar Architectural Office, owned by: Dr. Sami Angawi, Jeddah, 2009.
Licenses/Registration:	• The Kingdom of Saudi Arabia (KSA)
Selected Publications and Recent Research:	• Abbas,H., (2018), "Bayt Bin Himd, a case study of a merchant's house in Old Jiddah," Seminar for Arabian Studies, London, V. 48 , 1-6 • Abbas,H., (2017), "A Tale of Two Rushans: Architecture through Oral History," International Journal of Heritage Architecture, Southampton, V. 1, III, 365-378 • Abbas,H., (2014), "Al-Jami' al-'Atiq, the Oldest Mosque in Jidda," Journal of Islamic Though and Civilization, Lahore, V. 4, II, 9-21 • Abbas,H., (2014), "Catalogue of Hijazi Architecture in Jidda and Makkah c. 1850 -1920s: Selected Buildings" (MA Thesis, AUC, 2014)
Professional Memberships:	• Member in the Historians of Islamic Art Association

Name: Mrs. Maya Kamareddine	
Courses Taught:	• ARCH 101 Architecture Design Studio 1 • ARCH 102 Architecture Design Studio 2 • ARCH 203 Architecture Design Studio 3 • ARCH 204 Architecture Design Studio 4 • ARCH 305 Architecture Design Studio 5 • ARCH 120 Freehand Drawing • ARCH 240 Architecture, Culture & Environment • ARCH 464 Introduction to Interior Design • ARCH 361 Photography
Educational Credentials:	• Diplôme d'Etudes Supérieure en Architecture (M. Architecture), Lebanese University, Fine Arts Institute, 2004.
Teaching Experience:	• Full time Lecturer (2011 – Present), Effat University, Jeddah.
Professional Experience:	• Full time Architect (2007-2009), EllisDon, Dubai, UAE. • Full time Architect (2005-2007), LACECO International, Architect & Engineers, Beirut Lebanon.
Licenses/Registration:	• Lebanon
Selected Publications and Recent Research:	• N.A
Professional Memberships:	• Member of the Lebanese Engineering Syndicate.

Name: Mrs. Deema Al Khateeb		
Courses Taught:	• ARCH 101 Architecture Design Studio-1 • ARCH 102 Architecture Design Studio-2 • ARCH 120 Freehand Drawing • ARCH 203 Architecture Design Studio-3 • ARCH 204 Architecture Design Studio-4 • ARCH 343 Introduction to Landscape Arch.	• INTD 201 Interior Design Studio -3 • INTD 301 Interior Design Studio -5 • INTD 232 History of Interior Design • CC 051 Introduction to College • CC 054 Critical thinking and problem solving skills
Educational Credentials:	• M.Sc. Urban Planning, Science of cities, Lebanese University, June,2007. • M.Sc. in Architecture, Beaux Arts, Lebanese University. June,2005. • B.Sc. in Architecture, Beaux Arts, Lebanese University. June,2004.	
Teaching Experience:	• Full time Lecturer (2008 – Present), Effat University, Jeddah. • Full time Lecturer (2004-2006), Official Technical school of Der Ammar, Lebanon.	
Professional Experience:	• Architect (2005-2006), Municipality of Tripoli. • Project manager (2007-2008), Jeddah Interior Design and architect, Jeddah.	
Licenses/Registration:	• Lebanon	
Selected Publications and Recent Research:	• N.A	
Professional Memberships:	• Member of the Lebanese Engineering Syndicate, since 2010.	

Name: Ahmed Nabil Attar	
Courses Taught:	• ARCH 407 Architecture Design Studio 7 • ARCH 366 Comp. Aided Arch. Design-3 • ARCH 457 Professional Practice
Educational Credentials:	• M.Arch. Architecture, Academy of Art University, USA, 2012 • B.Arch. Architecture, King Abdul Aziz University, KSA, 2007
Teaching Experience:	• Part Time Lecturer (2017 – Present), Effat University, KSA. • Part Time Lecturer (2017 – 2018), Dar Al Hekma University, KSA • Part Time Lecturer (2013 – 2014),King Abdul Aziz University, KSA
Professional Experience:	• Senior Design Architect (2014 - 2017) at Retaj Architects & Constant Engineers, Jeddah, KSA • Concept Design Architect (2012 - 2013) at HOK Architects, London Office & TKC, Jeddah, KSA • Design Architect (2008- 2009) at Saudi Airlines, Facilities engineering, Jeddah, KSA
Licenses/Registration:	• The Kingdom of Saudi Arabia (KSA)
Selected Publications and Recent Research:	• N.A
Professional Memberships:	• Saudi Council of Engineers, KSA since 2008 • Creativity Engineering Center, KSA since 2008 • Saudi Council of Architectural Sciences, KSA since 2008

Name: Arch.Weam Abdulkarim Abdelgawad		
Courses Taught:	• ARCH 101 Architecture Design Studio 1 • ARCH 102 Architecture Design Studio 2 • ARCH 455 Working Drawings • ARCH 120 Freehand Drawing • ARCH 150 Computer Aided Arch. Design-1	• INTD 202 Interior Design Studio -4 • DESN101 Design Studio 1 • DESN102 Design Studio 2 • DESN122 Technical Drawing • ARD 054 Creative Design
Educational Credentials:	• MBA, Infrastructure and construction management, Assam Down Town University , India, 2015 • B.Sc. Architecture, Tanta University , Faculty of Engineering ,Egypt ,2000	
Teaching Experience:	• Part time Instructor (Spring 2013 – Present), Effat University, Jeddah, KSA. • Part Time Lecturer (2005–2009), Training Centre of the Egyptian Engineers Syndicate, Egypt.	
Professional Experience:	• Head of Technical office (2012 – 2013), SAF Innovative, Jeddah, KSA. • Head of Design Dep. ,(2011 – 2012), Daliat Al-Karmel BCD,, Jeddah, KSA • Senior Architect, (2010–2011), Allied Engineering Enterprises, Jeddah, KSA • Head of retail permits Dep. (2002–2009), Egyptian Ministry of Housing, Gr. Province Deputy. Egypt. • Architect (2000 – 2002), Hagin Tourism Development, Cairo& Hurghada, Egypt.	
Licenses/Registration:	• Egypt	
Selected Publications and Recent Research:	• N.A.	
Professional Memberships:	• Member of the Egyptian Engineering Syndicate, since 2000 • Member of American Institute of Architects (AIA).	

Name: Ms Nawar Sakijha	
Courses Taught:	• ARCH 101 Architecture Design Studio-1 • ARCH 120 Freehand Drawing • GART 121 Art Foundations • DESN 101 Design studio -1 • DESN 121 Freehand drawing • DESN 152 Colour , concept , theories & Applications • ARD 045 Creative Design
Educational Credentials:	• Diploma (on-line), Personal development, International Academy of personal development, Kuwait, 2013 • B.Sc. Architecture, Jordan University, Faculty of Engineering – Architecture Department , Amman , Jordan, 2001
Teaching Experience:	• Instructor (2014 – Present), Effat University, Jeddah.
Professional Experience:	• Architect in Al Maddah group (2013 - Present) , Jeddah, KSA • Variety of Publishing companies (Domus , Parents , Al Arabi , …) (2008-2011) • Architect in Private sector Al Muhini engineering office (2008-2011), Riyadh, KSA • Architect in Private sector Al- Barghouthy & Nahla office (2007-2008), Amman, Jordan • Architect in Private sector Al Awartani office (2006-2007), Amman, Jordan
Licenses/Registration:	• Jordan

Selected Publications and Recent Research:	• N.A.
Professional Memberships:	• Member of Association of Engineers, Amman, Jordan, since 2001. • Member of Jordan committee of very short story.

Name: Mrs. Hagar Saddik		
Courses Taught:	• ARCH 306 Architecture Design Studio-6 • ARCH 407 Architecture Design Studio-7 • ARCH 408 Architecture Design Studio-8	• INTD 302 Interior Design Studio-6 • DESN 101 Design Studio-1 • DESN 342 Design for Sustainability
Educational Credentials:	• M.Sc. Heritage Conservation and Site management, Brandenburg University& Helwan University, 2016 • B.Sc. Architecture engineering, Mansoura University, Faculty of Engineering, 2011	
Teaching Experience:	• Part time Lecturer (Fall 2017 – Present), Effat University, Jeddah, KSA.	
Professional Experience:	• Architect (2013 – 2014), Handasia office for Engineering Consultation, Cairo, Egypt. • Architecture Coordinator Engineer (2013), Focus for Engineering services (Binladin Group), Cairo, Egypt. • Interior Designer (2012), Belloeraro for Interior Designs & Furniture, Cairo, Egypt. • Junior Architect, (2011-2012), Connect Consults, Cairo, Egypt	
Licenses/Registration:	• Egypt	
Selected Publications and Recent Research:	• NA	
Professional Memberships:	• Member of the Egyptian Engineering Syndicate (EES), Egypt, since 2011	

Name : Arch. Sandra Al Ashkar Adi	
Courses Taught:	∗ ARCH 204 Architecture Design Studio 4 ∗ ARCH 455 Working Drawings ∗ ARCH 408 Architecture Design Studio 8 ∗ DESN 221 Digital Modelling in design
Educational Credentials:	∗ Bachelor degree of Architectural Engineering (Faculty of Architecture Design-and Built Environment) - Beirut Arab University –Royal Institute of British Architects(RIBA) Validated course – Lebanon-2013-2017.
Teaching Experience:	∗ Part time Instructor (2017-Present), Effat University, Jeddah, KSA ∗ Part time instructor (2015-2017), Beirut Arab University, Lebanon
Professional Experience:	∗ Professional work experience as an Intern Architect (2014-2015) ∗ Participated and completed LEED workshop in the Lebanese order of engineers and architects. (2015) ∗ Attended and finished a training course in ICDL VER 5.0 International Computer Driving License (Computer Essentials and Online Essentials) (2015) ∗ Participated and completed a training course in 3DMAX BASICS-3DMAX ADVANCED (AIA) certified. ∗ Attended and completed Bioclimatic Design in Hot Climates workshop. (2017)-in the Order of engineers and Architects -Lebanon ∗ Attended and completed Zero Energy Building Design –Energy efficiency in buildings seminar in The Order of Engineers and Architect Tripoli.

	* Attended three seminars of Sustainable Architecture and Building technology by Lebanon Green Building Council 2015-2017. * Attended many lectures about architectural conservation in contemporary buildings at Beirut Arab University.
Licenses/Registration:	* BEIRUT
Selected Publications and Recent Research:	* Recent research :Ghina-Y and N.Hannouf (2016) , "Zero Energy Building Design in Lebanon , The Monocle Guide to Building Better Cities".
Professional Memberships:	* Member in the Order of Engineers and Architects- Beirut

PART FOUR (IV): Section 3- Visiting Team Report (Visit Two)

The report is attached on the following page.

PART FOUR (IV): Section 4- Catalog (or URL)

The URL for the Effat University Undergraduate Catalog can be found at

https://www.effatuniversity.edu.sa/English/Academics/Catalogues/Pages/default.aspx

Department of Architecture
College of Architecture and Design
Effat University
Jeddah, Kingdom of Saudi Arabia

Visiting Team Report

Visit Two for Substantial Equivalency

Bachelor of Architecture
(171 credit hours)

The National Architectural Accrediting Board
April 2–5, 2018

Vision: The NAAB aspires to be the leader in establishing educational quality assurance standards to enhance the value, relevance, and effectiveness of the architecture profession.

Mission: The NAAB develops and maintains a system of accreditation in professional architecture education that is responsive to the needs of society and allows institutions with varying resources and circumstances to evolve according to their individual needs.

Contents

I. Summary of Team Findings

The visiting team would like to acknowledge everyone involved at Effat University for the collegial way we have been engaged in the arrangements made prior to the visit. The team was also always provided with clarifications to requests for information throughout the visit. These only increased our appreciation of how thoroughly organized the visit preparations overall were made by the architecture program, led by Chair Dr. Samah Elkhateeb.

1. Team Comments and Visit Summary

The team notes several areas where the Bachelor of Architecture program benefits from and contributes to Effat University:

- The university's unique standing as the first private university and architecture program for women in Saudi Arabia creates a unique commitment shared among everyone involved and contributes to the quality of the program. University programs are taught exclusively in English. Architecture is the largest program in the university and roughly 1/3 of the university enrollment, welcoming its first entering class in 2005. The university and Architecture Department leadership is currently all female, from president to provost to dean to chair, and there are female and male faculty.

- The Code of Ethical Conduct "Tarbawyyat," which could be translated to "Effat Principles of Educating and Rearing," authored by President Haifa Jamal Al Lail, with its eight pillars—piety, knowledge, nurturing, cooperation and collaboration, tolerance and moderation, modesty and ease, ethics and integrity, guidance—has a clear impact on the spirit of the institution and the architecture program. The team encountered the code's ethos in class and studio visits, tours, meetings with faculty, students, and staff, the character of student work, and in the balance of curricular with co-curricular activities provided by the required Effat University Amabassadors Program. Pillars mark the entrance to the university campus.

- A strong culture of planning and assessment was evident throughout the visit**.** This extends from the President to Provost Dr. Malak Alnory, to the Dean of the College of Architecture and Design Dr. Mervat El-Shafie, the Dean of Quality Assurance Dr. Eman Mohamed, through the Department of Architecture Chair Dr. Samah Elkhateeb and future chair Dr. Kholod Moumani. There is excitement about the country's 2030 plans, which are also impacting the university, and were mentioned by students and present in some student projects. The team sees that planning will be challenged in coming years, with significant changes in enrollment projected due to decreased scholarship support from the Ministry of Education across the country.

The team has found a strong commitment to faculty scholarly research and to student research in course work, which the university's 2017-2022 Strategic Plan seeks to enhance going forward. The 37-person faculty has a very high percentage of PhDs, almost all of whom are licensed practitioners. The university is building on this expertise in centers including the university-wide Smart Building Center, which houses the Environmental Lab and the school's Fabrication Lab. Faculty are able to undertake practice consultancy with prior approval from the institution, within guidelines.

The team has found a demonstrated commitment to accreditation processes including NAAB, which is evident in:

- the Architecture program's response over the past two years to providing new studio space, studio desks and locked storage for each student, and access to computers and software for all students.

- a well-organized team room prepared with both physical and digital evidence, and comprehensive documentation over four semesters, creating a structure clearly tieing syllabi and assignments to student learning outcomes.

- Architecture students, faculty and administration have embraced the value of NAAB processes in developing program quality, and for its contributions to student access to future graduate study and career opportunities.

- Effat University's achievement of several national and international accreditations in recent years including the National Center for Academic Accreditation and Assessment (NCAAA) in Saudi Arabia 2017-2024, and ABET in Engineering in 2017. The university is seeking AACSB accreditation in business and institutional accreditation through NEASC in 2021.

The team notes the architecture program's context within the College of Architecture & Design, with undergraduate programs in Design, Visual and Digital Production, and a Master of Science in Urban Design. The architecture program curriculum balances architecture requirements, general education distributed across all years of study, and electives sufficient to allow students to explore different topics. The program benefits from cooperative agreements with NAAB-accredited programs at Kent State University and the University of Miami, where faculty and students are teaching and studying together.

The Architecture Department has faced many challenges in educating and promoting young women in the field. One of the initial obstacles included finding architecture firms willing to offer students internships and employment. As the president told the visiting team, "In the beginning, we knocked on doors until we broke them."

The team finds that Effat's architecture students are inquisitive and collaborative, and willing to accept input through back-and-forth engagement with the faculty. They are optimistic and more collaborative than competitive. They are candid about their experiences in internship placements. They undertake their education at Effat as a pursuit of knowledge and collaboration with faculty and other students, as a step toward further study, and as preparation to enter the profession, which they will transform by their presence and contributions.

2. Conditions Not Met/Not Yet Met

A.4 Technical Documentation
B.6 Comprehensive Design
C.4 Project Management
C.5 Practice Management
I.1.3 D. Architectural Education and the Profession

3. Causes of Concern

A. Enrollment Management

To promote higher education in the Kingdom, the Saudi Ministry of Education previously granted a scholarship to every Saudi high school graduate. That program spurred a large enrollment increase in the architecture program, resulting in a graduating class of 70 students in 2016 and 61 students in 2017, when the previous graduating classes averaged 32 students. The amount of scholarship funding has been dramatically reduced, and the department expects a resulting enrollment decline starting in fall 2018. The team is concerned about how the enrollment changes expected will impact the program curriculum and faculty. Effat University plans include addressing this by increasing faculty research time and reducing teaching loads.

B. Professional Practice and Project Management

Although the team applauds the program for creating two courses, Professional Practice and Project Management, where many programs only offer one, the learning outcomes in these courses do not address the NAAB Student Performance Criteria in Realm C as directly as needed to satisfy the standard, or in some cases not at all. In particular, the architect's role as the team leader in design and recognizing trends that affect practice is absent.

II. Compliance with the Conditions for Substantial Equivalency

Part One (I): INSTITUTIONAL SUPPORT AND COMMITMENT TO CONTINUOUS IMPROVEMENT

Part One (I): Section 1. Identity and Self-Assessment

I.1.1 History and Mission*: The program must describe its history, mission and culture and how that history, mission, and culture is expressed in contemporary context. Programs that exist within a larger educational institution must also describe the history and mission of the institution and how that history, mission, and culture is expressed in contemporary context.*

The substantially equivalent degree program must describe and then provide evidence of the relationship between the program, the administrative unit that supports it (e.g., school or college) and the institution. This includes an explanation of the program's benefits to the institutional setting, how the institution benefits from the program, any unique synergies, events, or activities occurring as a result, etc.

Finally, the program must describe and then demonstrate how the course of study and learning experiences encourage the holistic, practical and liberal arts-based education of architects.

[X] The program has fulfilled this requirement for narrative and evidence.

Visit Two Team Assessment: The APR describes the B.Arch. program's history, mission, culture and how it is intrinsically tied to the university, as well as Effat University's leading role in establishing architecture education for women in Saudi Arabia. The university was established in 1999, the architecture program in 2005. The program and the university are dedicated to supporting and developing liberal arts and professional education in its students and graduates. Architecture students comprise almost 1/3 of Effat University's total enrollment.

I.1.2 Learning Culture and Social Equity*:*

- *Learning Culture: The program must demonstrate that it provides a positive and respectful learning environment that encourages the fundamental values of optimism, respect, sharing, engagement, and innovation between and among the members of its faculty, student body, administration, and staff in all learning environments both traditional and nontraditional.*

  Further, the program must demonstrate that it encourages students and faculty to appreciate these values as guiding principles of professional conduct throughout their careers, and it addresses health-related issues, such as time management.

  Finally, the program must document, through narrative and artifacts, its efforts to ensure that all members of the learning community (faculty, staff, and students) are aware of these objectives and are advised as to the expectations for ensuring they are met in all elements of the learning culture.

- *Social Equity: The substantially equivalent degree program must first describe how social equity is defined within the context of the institution or the country in which it is located and then demonstrate how it provides faculty, students, and staff with a culturally rich educational environment in which each person is equitably able to learn, teach, and work.*

[X] The program has demonstrated that it provides a positive and respectful learning environment.
[X] The program has demonstrated that it provides a culturally rich environment in which each person is equitably able to learn, teach, and work.

Visit Two Team Assessment: Evidence of the university and architecture program's learning culture and social equity was found in the APR on pp. 34-43. Documents in the team room provided additional evidence including interrelated policies, performance indicators and assessment practices guiding the development of the learning environment and each individual's access to learn, teach and work. Faculty expectations are clearly outlined for teaching, research, annual reporting, and multiyear development. These set a tone for the learning culture among faculty, and the Effat University Code of Ethics "Tarbawyyat" contributes to framing a learning culture among all members of the university. The team found an interactive learning culture among students, faculty, and adminstrators that demonstrated respect and a constructive environment distinctively fit to the university's and program's situation. The architecture program Studio Culture policy includes considerations for student workloads and time management.

Evidence of the environment's richness is found in the faculty composition of female and male faculty with most holding PhDs and also practice experience from Saudi Arabia and other countries. Similarly, students are from the Kingdom as well as other countries including full-time students from India, Egypt, Tunisia, as well as exchange students from the United States. The team found evidence of strong participation among students from many backgrounds in co-curricular activities that deepened students' awareness of architecture and how it relates to cultures and locales. The team found a culture of communication of students speaking and writing clearly, as well as graphically. The team participated in class visits where alumnae returned to the school to critique student thesis project development, providing a strong demonstration of peer mentoring as part of the learning culture. While students are all female, discussions with students and faculty revealed a commitment to engagement in broader society during their studies and after they graduate.

I.1.3 Response to the Five Perspectives*: Programs must demonstrate through narrative and artifacts, how they respond to the following perspectives on architecture education. Each program is expected to address these perspectives consistently within the context of its history, mission, and culture and to further identify as part of its long-range planning activities how these perspectives will continue to be addressed in the future.*

A. Architecture Education and the Academic Community. That the faculty, staff, and students in the substantially equivalent degree program make unique contributions to the institution in the areas of scholarship, community engagement, service, and teaching.[1] In addition, the program must describe its commitment to the holistic, practical, and liberal arts–based education of architects and to providing opportunities for all members of the learning community to engage in the development of new knowledge.

[X] The program is responsive to this perspective.

Visit Two Team Assessment: The architecture program is responsive to this perspective, beginning with the APR pp. 33-43. The team found the relationship between Effat University and the architecture program to be strong and supportive due to the close interactions between the school and college, as well as the offices of academic affairs, quality assurance, and the president. Effat University demonstrated a commitment to and monitoring of academic quality and research progress in the preparation of the team room, and numerous planning and assessment policies and documents available including annual reports demonstrating each program's contributions to the university's plans. The architecture program has a unique presence within Effat University as the first for women in the Kingdom beginning in 2005, with almost 1/3 of the institution's enrollment at one point. The architecture program includes a shared liberal arts general education program with the university, and has a particulary strong commitment to the development of new knowledge fostered by the provost's research initiative. Effat University's

[1] See Boyer, Ernest L. *Scholarship Reconsidered: Priorities of the Professoriate*. Carnegie Foundation for the Advancement of Teaching. 1990.

development of research centers and labs including the Smart Building Center and Environmental and Virtual Reality labs enable collaborations and unique contributions from architecture. The university and the architecture program benefit from a strong culture of accreditation, with NEASC and AACSB accreditations in process, ABET successfully complete, and NAAB Substantial Equivalency in progress. Architecture benefits from active partnerships with NAAB-accredited architecture programs at Kent State University and the University of Miami.

B. Architecture Education and Students. That students enrolled in the substantially equivalent degree program are prepared to live and work in a global world where diversity, distinctiveness, self-worth, and dignity are nurtured and respected; to emerge as leaders in the academic setting and the profession; to understand the breadth of professional opportunities; to make thoughtful, deliberate, informed choices and; to develop the habit of lifelong learning.

[X] The program is responsive to this perspective.

Visit Two Team Assessment: Evidence of the program's responsiveness to this perspective is provided in the APR on pp. 44-55. Students are prepared to live and work in a global world through curricular and co-curricular requirements and options, beginning with the Effat University Tarbawyyat ("Effat Principles of Educating and Rearing") or Effat University Code of Ethical Conduct, called the Pillars. These are put into practice by students in the required Effat Ambassador Program, which emphasizes values of life-long research; ethical, social, and educational values; responsible and creative leadership; and effective communication and outreach to others.

The team found extensive reference to these guiding principles in our interactions with students, faculty and administrators. Effat University has an active AIAS chapter, as well as numerous other student groups that provide leadership opportunities within and beyond the university, including national and international trips, Green Building Council, Islamic Architecture Circle, Kent State Workshop, the Fab Lab Club, Environmental Lab Club, and Big Sisters. The APR includes evidence of architecture alumnae status on pp. 132-133 including those working, studying, and seeking employment. The team found evidence of student engagement with professional opportunities through our meeting with internship employers, alumnae who returned for the visit from working or studying abroad and locally, and access to an extensive list of alumnae on LinkedIn. Effat Uninversity architecture students are encouraged by their peers and faculty, who students trust to help them move toward entering the profession and becoming leaders in society as graduates of the first women's architecture program in the Kindgom.

C. Architecture Education and the Regulatory Environment. That students enrolled in the substantially equivalent degree program are provided with a sound preparation for the transition to licensure or registration. The school may choose to explain in the *APR* the degree program's relationship with the process of becoming an architect in the country where the degree is offered, the exposure of students to possible internship requirements, the students' understanding of their responsibility for professional conduct, and the proportion of graduates who have sought and achieved licensure or registration since the previous visit.

[X] The program is responsive to this perspective.

Visit Two Team Assessment: All graduates of the architecture program are immediately registered by the Saudi Council of Engineers (SCE) as engineers with a specialty in architecture. The SCE is Saudi Arabia's sole regulatory body for architects, providing professional registration for graduates. Architects are required to work four years in an architecture office to become associate engineers, the equivalent of a licensed architect. Since 2009, one former student has attained the level of associate engineer and is a partner in a Saudi architecture firm.

A 120-hour summer internship is a requirement for all architecture students and is a prerequisite

for the Professional Practice course. The faculty member teaching the course, the department chair, and the architecture firm's site supervisor help students plan, implement, and evaluate their internship. The Career Development Office contacts local firms to help place students and conducts an orientation session for students before they join a firm.

D. Architecture Education and the Profession. That students enrolled in the substantially equivalent degree program are prepared: to practice in a global economy; to recognize the positive impact of design on the environment; to understand the diverse and collaborative roles assumed by architects in practice; to understand the diverse and collaborative roles and responsibilities of related disciplines; to respect client expectations; to advocate for design-based solutions that respond to the multiple needs of diverse clients and populations, as well as the needs of communities; and to contribute to the growth and development of the profession.

[X] The program is not responsive to this perspective.

Visit Two Team Assessment: The team finds the program is not adequately responsive to this perspective. The team found that students were less than adequately prepared to practice in a global economy, in relation to the collaborative roles of architects in practice and with related disciplines, the role of the architect as the design team leader, and successfully working with clients.

The evidence outlined in the APR on pp. 57-61 included a description of several elements of the architecture program that relate to this perspective, including a required summer internship, a faculty lecture series, the annual Memaryat Exhibition, course work in the history of Islamic architecture, Saudi traditional architecture and comparative architectural thoughts, which exposes students to varied cultures and design traditions, and that design professional participate in studio reviews. Some students also participate in national and international conferences. These together create awareness of several dimensions related to this perspective, but not adequately for students to be prepared for the scope indicated.

E. Architecture Education and the Public Good. That students enrolled in the substantially equivalent degree program are prepared: to be active, engaged citizens; to be responsive to the needs of a changing world; to acquire the knowledge needed to address pressing environmental, social, and economic challenges through design, conservation, and responsible professional practice; to understand the ethical implications of their decisions; to reconcile differences between the architect's obligation to his/her client and the public; and to nurture a climate of civic engagement, including a commitment to professional and public service and leadership.

[X] The program is responsive to this perspective.

Visit Two Team Assessment: The curriculum is designed to educate socially responsible architects. From a required course addressing low-income housing to research dedicated to urban planning and the impact on neighborhoods and communities to a lecture series on community work, the students are engaged and responsive to local and global challenges. There is a strong sustainability aspect to the program overall with evidence displayed in course work, research, studio projects, and the capstone project.

Part of the university's mission is to prepare students to become holistic thinkers and participants in their community. The architecture program is dedicated to this as well, providing students with opportunities to interact with the local community through research and design projects. The program recently hosted collaborative design workshops with the Architectural Association School of Architecture in London focusing on the nearby holy city of Makkah. The previously mentioned university-wide Ambassador Program encourages responsible citizenship and promotes community service.

I.1.4 Long-Range Planning*: A substantially equivalent degree program must demonstrate that it has identified multi-year objectives for continuous improvement within the context of its mission and culture, the mission and culture of the institution, and the five perspectives. In addition, the program must demonstrate that data is collected routinely and from multiple sources to inform its future planning and strategic decision making.*

[X] The program's processes meet the standards as set by the NAAB.

Visit Two Team Assessment: The APR provides a comprehensive detailed account of the architecture program's long-range planning within the university's planning processes. The team found evidence of a strong culture of planning at Effat University, including evidence in the team room of the College of Architecture & Design's Strategic Plan 2017-2022, and the university's concurrent 5-year plan, Embracing Research 2017-2022. Evidence includes charts with comparative goals at the university, college and program levels. The APR included a section on the Five Perspectives and Long Range Planning, where it evaluated each perspective and described how their approaches to the perspectives were achieved in the Strategic Plan. The architecture program also undertakes its planning in conjunction with its academic partner, the University of Miami.

I.1.5 Self-Assessment Procedures*: The program must demonstrate that it regularly assesses the following:*

- *How the program is progressing toward its mission.*
- *Progress against its defined multiyear objectives (see I.1.4 Long-Range Planning) since the objectives were identified and since the last visit.*
- *Strengths, challenges, and opportunities faced by the program while developing learning opportunities in support of its mission and culture, the mission and culture of the institution, and the five perspectives.*
- *Self-assessment procedures shall include, but are not limited to:*
    - *Solicitation of faculty, students', and graduates' views on the teaching, learning and achievement opportunities provided by the curriculum.*
    - *Individual course evaluations.*
    - *Review and assessment of the focus and pedagogy of the program.*
    - *Institutional self-assessment, as determined by the institution.*

The program must also demonstrate that results of self-assessments are regularly used to advise and encourage changes and adjustments to promote student success as well as the continued maturation and development of the program.

[X] The program's processes meet the standards as set by the NAAB.

Visit Two Team Assessment: Evidence was found in the APR on pp. 79-83 and pp. 64-77 of assessment of the program's progress relative to its mission, multiyear objectives. This progress is undertaken between the architecture program, the college, and with the dean of quality assurance, and includes review by the provost, and its academic partner, the University of Miami.

Addtionally, a Semester Activities and Quality Report and Annual Program Reports, prepared by the chair, guides changes and adjustments to courses. These reports are reviewed internally by the department, college, and university, and externally by the quality committees set by the Ministry of Education and the external reviewers of the national accrediting body (NCAAA). External input is regularly provided by the Program Advisory Committee of professionals, academics, and alumnae.

PART ONE (I): SECTION 2—RESOURCES

I.2.1 Human Resources and Human Resource Development

- *Faculty & Staff:*
  - *A substantially equivalent degree program must have appropriate human resources to support student learning and achievement. This includes full- and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff. Programs are required to document personnel policies which may include but are not limited to faculty and staff position descriptions[2].*
  - *Substantially equivalent programs must document the policies they have in place to further social equity or diversity initiatives appropriate to the cultural context of the institution.*
  - *A substantially equivalent degree program must demonstrate that it balances the workloads of all faculty and staff to support a tutorial exchange between the student and teacher that promotes student achievement.*
  - *A substantially equivalent degree program must demonstrate it is able to provide opportunities for all faculty and staff to pursue professional development that contributes to program improvement.*
  - *Substantially equivalent programs must document the criteria used for determining rank, reappointment, tenure, and promotion as well as eligibility requirements for professional development resources.*

[X] Human resources (faculty and staff) are adequate for the program.

Visit Two Team Assessment: The APR provides evidence on pp. 84-94 of Faculty & Staff Human Resources and Human Resource Development resources, which the team finds adequate. The APR outlines faculty profiles, highest qualifications, resources for faculty, and time management/load balancing frameworks. Criteria and processes for promotion are outlined, including teaching, research, and scientific contributions and university, departmental, and public service. A sabbatical leave policy is in place. Additional policy documents related to faculty and faculty development were available in the team room.

- *Students:*
  - *A substantially equivalent program must document its student admissions policies and procedures. This documentation may include but is not limited to application forms and instructions, admissions requirements, admissions decisions procedures, financial aid and scholarships procedures, and student diversity initiatives. These procedures should include first-time, first-year students as well as transfers within and outside of the university.*
  - *A substantially equivalent degree program must demonstrate its commitment to student achievement both inside and outside the classroom through individual and collective learning opportunities.*

[X] Human resources (students) are adequate for the program.

Visit Two Team Assessment: Evidence was found regarding student admissions policies and procedures in the APR and in the team room, for freshman and transfer students. Commitment to student achievement was demonstrated in review of student evaluations of teaching, tracking of students across the curriculum, and extensive student support systems as provided by the dean of Student Affairs, including tutoring, counseling, career placement, and alumni relations. Evidence of commitment to individual and collective learning opportunities was found in class visits to studios, classroom courses and seminars, and to several university centers, including Smart Buildings, Environmental Lab, and VR Lab. The meeting with students found evidence of extensive support for student organizations including AIAS, Islamic Architecture Circle, Green Building Council Club, Fab Lab Club. The university's Effat Ambassador Program for all student encourages personal and group

[2] A list of the policies and other documents to be made available in the team room during a substantial equivalency visit is in Appendix 4 of the 2012 Conditions for Substantial Equivalency.

development and community service and provides a university-wide context for student development in the architecture program.

I.2.2 Administrative Structure and Governance

- **Administrative Structure:** *A substantially equivalent degree program must demonstrate it has a measure of administrative autonomy that is sufficient to affirm the program's ability to conform to the conditions for substantial equivalency. Substantially equivalent programs are required to maintain an organizational chart describing the administrative structure of the program and position descriptions describing the responsibilities of the administrative staff.*

  [X] Administrative structure is adequate for the program.

  Visit Two Team Assessment: The APR (pp. 104-107) provides evidence of a well-organized administrative structure. It demonstrates how the program functions with the Effat University organization, within the College of Architecture and Design and the Department of Architecture. Position descriptions of the administrative staff were provided in the team room.

- **Governance:** *The program must demonstrate that all faculty, staff, and students have equitable opportunities to participate in program and institutional governance as appropriate to the context and culture of the institution.*

  [X] Governance opportunities are adequate for the program.

  Visit Two Team Assessment: The APR on pp. 106-107 outlines the opportunities available for faculty, staff and students to participate in governance. The adequacy of this structure was confirmed in meetings with faculty, staff and students during the visit.

I.2.3 Physical Resources: *The program must demonstrate that it provides physical resources that promote student learning and achievement in a professional degree program in architecture. This includes but is not limited to the following:*

- *Space to support and encourage studio-based learning*
- *Space to support and encourage didactic and interactive learning.*
- *Space to support and encourage the full range of faculty roles and responsibilities including preparation for teaching, research, mentoring, and student advising.*

[X] Physical resources are adequate for the program.

Visit Two Team Assessment: As outlined in the APR on pp. 108-120, and confirmed during the visit through facilities tours, the university provides adequate space for architecture studios in existing buildings for the program. Since visit one, the program has made dramatic progress and now provides one studio desk and locker per student, and the architecture building has full wireless access and power and data connections. Every classroom has a projector and computer.

Studio and classroom spaces are complemented by a computer center, fab lab with laser cutters, multiple 3d printers, and a CNC machine. Laptops can be checked out from the library on a semester basis, and software incuding architectural software is available for personal laptops. Computers are equipped with a wide range of software. The institutional Strategic Plan requires upgrades to hardware every 3-5 years. Faculty members have private offices with a personal computer, and the space is adequate for meeting with students. Spaces for classroom are shared with engineering and business colleges.

I.2.4 Financial Resources: *A substantially equivalent degree program must demonstrate that it has access to appropriate institutional and financial resources to support student learning and achievement.*

[X] Financial resources are adequate for the program.

Visit Two Team Assessment: Evidence was found in the APR on pp. 121-125 of adequate financial resources for the program. The team confirmed the adequacy of financial resources related to the anticipated fluctuation in student enrollment in discussions with the president, provost, dean and program directors. The potential enrollment management issues identified as a cause of concern relate more to program curriculum and faculty.

I.2.5 Information Resources: *The substantially equivalent program must demonstrate that all students, faculty, and staff have convenient access to literature, information, and visual and digital resources that support professional education in the field of architecture.*

Further, the substantially equivalent program must demonstrate that all students, faculty, and staff have access to architecture librarians and visual resources professionals who provide information services that teach and develop research, evaluative, and critical thinking skills necessary for professional practice and lifelong learning.

[X] Information resources are adequate for the program.

Visit Two Team Assessment: Evidence was outlined in the APR and confirmed during the visit in a library tour and meetings with staff that all students, faculty and staff have appropriate access to information resources, within the new Effat University Library & Cultural Museum, which opened in 2014. The library includes an area for the architecture collection and includes a special collection on Islamic architecture. Extensive digital access to collections is provided. Effat University's policies on Collection Development, Access Services, and Electronic Usage are clear and include architecture students, faculty, and staff.

PART I: SECTION 3—REPORTS

I.3.1 Statistical Reports. *Programs are required to provide statistical data in support of activities and policies that support social equity in the professional degree and program as well as other data points that demonstrate student success and faculty development.*

- *Program student characteristics.*
  - *Number of students enrolled in the substantially equivalent degree program(s).*
  - *Qualifications of students admitted in the fiscal year prior to the upcoming visit compared to those admitted in the fiscal year prior to the last visit.*
  - *Time to graduation.*
    - *Percentage of matriculating students who complete the substantially equivalent degree program within the normal time to completion for each academic year since the previous visit.*
    - *Percentage who complete the substantially equivalent degree program within 150% of the normal time to completion for each academic year since the previous visit.*

- *Program faculty characteristics*
  - Number of faculty by rank (e.g., assistant professor, associate professor)
  - Number of full-time faculty and part-time faculty
  - Number of faculty promoted each year since the last visit
  - Number of faculty maintaining licenses in the country of the program each year since the last visit, and where they are licensed

[X] Statistical reports were provided and provide the appropriate information.

Visit Two Team Assessment: Required data regarding student characteristics was provided in the APR. Qualifications of admitted students were submitted in the team room. There has not been enough time since Visit 1 (June 2016) to calculate the percentage who completed the substantially equivalent degree program within 150% of the normal time to completion for each academic year since the previous visit.

Required data regading faculty characteristics for the following items was provided in the APR:
- Number of faculty by rank (e.g., assistant professor, associate professor)
- Number of full-time faculty and part-time faculty

Required data regarding faculty characteristics for the following items was provided in the team room:
- Number of faculty promoted each year since the last visit
- Number of faculty maintaining licenses in the country of the program each year since the last visit, and where they are licensed

I.3.2 Faculty Credentials*: The program must demonstrate that the instructional faculty are adequately prepared to provide an architecture education within the mission, history, and context of the institution.*

In addition, the program must provide evidence through a faculty exhibit[3] that the faculty, taken as a whole, reflects the range of knowledge and experience necessary to promote student achievement as described in Part Two. This exhibit should include highlights of faculty professional development and achievement since the last substantial equivalency visit.

[X] Faculty credentials were provided and demonstrate the range of knowledge and experience necessary to promote student achievement.

Visit Two Team Assessment: The APR contained a list of faculty credentials, résumés, research areas, and the courses each faculty member teaches. As listed in the Faculty Matrix, there are currently 37 faculty members. Of those, 26 hold a PhD. Almost all of the faculty are licensed practitioners. Faculty are

[3] The faculty exhibit should be set up near or in the team room. To the extent the exhibit is incorporated into the team room, it should not be presented in a manner that interferes with the team's ability to view and evaluate student work.

able to undertake practice consultancy with prior approval from the institution, as outlined in a Consultancy Manual. The team saw evidence of an active, dedicated faculty that engages in a range of research and teaching to support the program.

PART ONE (I): SECTION 4—POLICY REVIEW

The information required in the three sections described above is to be addressed in the APR. In addition, the program shall provide a number of documents for review by the visiting team. Rather than being appended to the APR, they are to be provided in the team room during the visit. The list is available in Appendix 4 of the Condtions for Substantial Equivalency.

[X] The policy documents in the team room met the requirements of Appendix 4.

Visit Two Team Assessment: Evidence was found in the team room of the following required policies, guided by a four-volume Effat University Policy Manual which is organized into the following standards:

- Standard 1: Mission, Goals and Objectives
- Standard 2: Governance & Administration
- Standard 3: Quality Assurance & Improvement
- Standard 4: Learning & Teaching
- Standard 5: Student Administration & Support Services
- Standard 6: Learning Resources
- Standard 7: Facilities and Equipment
- Standard 8: Financial Planning & Management
- Standard 9: Employment Process
- Standard 10: Research
- Standard 11: institutional Relation with the Community

The extent of policy development at the institution demonstrates the extensive public access that fauclty, staff and students are provided to policies and procedures at Effat University.

NAAB-required policy areas are included in Effat University policies as outlined below:

- Learning Culture and Social Equity Policy—are included in Standard 4: Learning & Teaching, and in the Effat University Code of Ethical Conduct

- Self-Assessment Policies and Objectives—university-wide and school assessment policies and objectives are found in Standard 3: Quality Assurance and Improvement, and include an architecture program Assessment Manual; and Standard 4: Learning & Teaching Policies and Procedures. Semester Activities and Quality Reports demonstrate how polcies are implemented.

- Personnel Policies including:
    - Position descriptions for all faculty and staff—included in the team room
    - Rank, Tenure, and Promotion—Rank and Promotion are included in the Effat University Faculty Handbook, and the Faculty Promotion Guidelines. Effat University does not have tenure.
    - Reappointment—Policies regarding reappointment are included in the Effat University Faculty Handbook.
    - Social Equity or Diversity, as appropriate—policies regarding Social Equity or Diversity are included in the Effat University Code of Ethical Conduct, which includes faculty, staff, research and student elements
    - Faculty Development, including but not limited to, research, scholarship, creative activity, or sabbatical—are included in the Effat University Faculty Handbook, the Faculty Research Manual, and the Consultancy Manual.

Student-to-faculty ratios for all components of the curriculum (i.e., studio, classroom/lecture, seminar) are 1: 14 in studio, 1: 25 in classroom lecture, 1: 20 in seminar courses.

Square feet per student for space designated for studio-based learning were included in the team room: 70 sq. feet per student, with additional area in each studio for collective gathering and review activities.

Square feet per faculty member for space designated for support of all faculty activities and responsibilities were included in the team Room: 120 sf

Admissions requirements are included in the team Room, including policies in Standard 4: Learning & Teaching involving Placement and Admissions Testing; and in Standard 6: Student Administration & Support Services.

Advising policies; including policies for evaluation of students admitted from preparatory programs where SPC are expected to have been met in educational experiences in non-substantially equivalent programs were included in the team Room in the Effat university Advising Manual

Policies on use and integration of digital media in architecture curriculum were included in the team Room

Policies on academic integrity for students (e.g., cheating and plagiarism) was included in the team Room in Standard 6 Student Code of Ethical Conduct

Policies on library and information resources collection development –Standard 6: Learning Resources: Collections Development policy

PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM

PART TWO (II): SECTION 1—STUDENT PERFORMANCE—EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA

The substantially equivalent degree program must demonstrate that each graduate possesses the knowledge and skills defined by the Student Performance Criteria set out below. The knowledge and skills are the minimum for meeting the demands of an internship leading to registration for practice.

The school must provide evidence that its graduates have satisfied each criterion through required coursework. If credits are granted for courses taken at other institutions or online, evidence must be provided that the courses are comparable to those offered in the substantially equivalent degree program.

The criteria encompass two levels of accomplishment[4]:

Understanding—The capacity to classify, compare, summarize, explain and/or interpret information.

Ability—Proficiency in using specific information to accomplish a task, correctly selecting the appropriate information, and accurately applying it to the solution of a specific problem, while also distinguishing the effects of its implementation.

The NAAB establishes student performance criteria to help substantially equivalent degree programs prepare students for the profession while encouraging educational practices suited to the individual degree program. In addition to assessing whether student performance meets the professional criteria, the visiting team will assess performance in relation to the school's stated curricular goals and content. While the NAAB stipulates the student performance criteria that must be met, it specifies neither the educational format nor the form of student work that may serve as evidence of having met these criteria. Programs are encouraged to develop unique learning and teaching strategies, methods, and materials to satisfy these criteria. The NAAB encourages innovative methods for satisfying the criteria, provided the school has a formal evaluation process for assessing student achievement of these criteria and documenting the results.

For the purpose of substantial equivalency, graduating students must demonstrate understanding or ability as defined below in the Student Performance Criteria (SPC):

II.1.1 Student Performance Criteria: The SPC are organized into realms to more easily understand the relationships between individual criteria.

Realm A: Critical Thinking and Representation:
Architects must have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. This ability includes facility with the wider range of media used to think about architecture including writing, investigative skills, speaking, drawing and model making. Students' learning aspirations include:

- Being broadly educated.
- Valuing lifelong inquisitiveness.
- Communicating graphically in a range of media.
- Recognizing the assessment of evidence.
- Comprehending people, place, and context.
- Recognizing the disparate needs of client, community, and society.

[4] See also *Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives.* L. W. Anderson and D. R. Krathwold, eds. (New York: Longman, 2001).

A.1. Communication Skills: *Ability to* read, write, speak and listen effectively.

[X] Met

Visit Two Team Assessment: Evidence was found throughout the curriculum beginning in Arch 102 Architecture Design Studio 2 in presentations integrating text, images, charts; Arch 340 Research Methods in Architecture and Urban Design; Arch 466 Comparative Architectural Thoughts including scholarly documentation; Arch 571 Capstone Project Preparation; and Arch 572 Capstone Project inclusive of a wide variety of communication tools including writing, scholarly documentation, concept and building sketch diagrams and analysis.

A.2. Design Thinking Skills: *Ability to* raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 102 Studio 2, ARCH 305 Studio 5, ARCH 340 Research Methods in Architecture and Urban Design.

A.3. Visual Communication Skills: *Ability to* use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 102 Studio 2, ARCH 120 Freehand Drawing, for ability with graphic skills. and in ARCH 150 Computer Aided Design I, ARCH 256 Computer Aided Design II for digital technology skills.

A.4. Technical Documentation: *Ability* to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

[X] Not Met

Visit Two Team Assessment: Evidence was found in ARCH 352 Building Structures and Materials, ARCH 455 Working Drawings. The team did not find evidence of coverage of outline specifications.

A.5. Investigative Skills: *Ability to* gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 306 Architecture Design Studio 6 and ARCH 571 Capstone Project Preparation

A.6. Fundamental Design Skills: *Ability to* effectively use basic architectural and environmental principles in design.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 203 Architecture Design Studio 3.

A.7. **Use of Precedents: *Ability* to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 306 Architecture Design Studio 6

A.8. **Ordering Systems Skills: *Understanding* of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 240 Architecture, Culture and Environment; and ARCH 352 Building Structure and Materials.

A.9. **Historical Traditions and Global Culture: *Understanding* of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 231 History of Architecture, ARCH 232 History of Islamic Architecture, and ARCH 446 Comparative Architectural Thoughts.

A.10. **Cultural Diversity*: Understanding* of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 240 Architecture, Culture, Environment and ARCH 446 Comparative Architectural Thoughts.

A.11. **Applied Research: *Understanding* the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 340 Research Methods in Architecture and Urban Design.

Realm A. General Team Commentary: Student work across the curriculum demonstrates effective critical thinking and research skills, including applied research through design projects. Communication via various graphic methods as well as study and analysis of the built environment are strongly evident throughout course work and studio projects. Students exhibit a strong foundation of fundamental design and a pursuit of lifelong learning.

Realm B: Integrated Building Practices, Technical Skills and Knowledge: Architects are called upon to comprehend the technical aspects of design, systems and materials, and be able to apply that comprehension to their services. Additionally they must appreciate their role in the implementation of

design decisions, and their impact of such decisions on the environment. Students learning aspirations include:

- Creating building designs with well-integrated systems.
- Comprehending constructability.
- Incorporating life safety systems.
- Integrating accessibility.
- Applying principles of sustainable design.

B.1. **Pre-Design: *Ability* to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 571 Capstone Project Preparation.

B.2. **Accessibility: *Ability* to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities**.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 306 Architecture Studio 6 and ARCH 408 Architecture Studio 8.

B.3. **Sustainability: *Ability* to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 453 Energy and Design.

B.4. **Site Design: *Ability* to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 306 Architecture Design Studio 6.

B.5. **Life Safety: *Ability* to apply the basic principles of life-safety systems with an emphasis on egress.**

[X] Met

Visit Two team Assessment: Evidence was found in ARCH 408 Architecture Design Studio 8.

B.6. Comprehensive Design: *Ability* to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC:

A.2. Design Thinking Skills

A.4. Technical Documentation

A.5. Investigative Skills

A.8. Ordering Systems

A.9. Historical Traditions and Global Culture

B.5. Life Safety

B.2. Accessibility

B.3. Sustainability

B.4. Site Design

B.8. Environmental Systems

B.9.Structural Systems

[X] Not Met

Visit Two Team Assessment: Evidence was found of student work in ARCH 408 Architecture Design Studio 8 and in ARCH 572 Capstone Project that all elements of comprehensive design were engaged in student projects. However, the integration of accessibility, sustainability, life safety, environmental systems was inconsistent across student projects presented. Graphic representation across multiple scales is not evident.

B.7 Financial Considerations: *Understanding* of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 444 Housing and Economics, and in ARCH 556 Project Management.

B.8. Environmental Systems: *Understanding* the principles of environmental systems' design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 453 Energy and Design of the understanding of principles of environmental systems design including embodied energy, passive heating and cooling, solar orientation, daylighting, and assessment tools. Evidence was found in ARCH 454 Mechanical, Electrical and Safety Systems of understanding active heating and cooling, indoor air quality, artificial illumination. Evidence of understanding involving acoustics was not found.

B.9. Structural Systems: *Understanding* of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 350 Structures in Architecture I, and ARCH 351 Structure in Architecture II.

B.10. Building Envelope Systems: *Understanding* of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

[X] Met

Visit Two Team Assessment: Evidence was found in Arch 453 Energy and Design.

B.11. Building Service Systems Integration: *Understanding* of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems

[X] Met

Visit Two Team Assessment: Evidence was found in Arch 454 Mechanical, Electrical and Safety Systems.

B.12. Building Materials and Assemblies Integration: *Understanding* of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.

[X] Met

Visit Two Team Assessment: Evidence was found in Arch 352 Building Structures and Materials, and Arch 455 Working Drawings.

Realm B. General team Commentary: Students receive a broad experience regarding systems and materials. Sustainable design is a particular strength of the curriculum, drawing on the local Jeddah vernacular and undertaking research into both new and traditional sustainable construction methods. A research-based Capstone Project is required of all graduates, integrating communication, design and research skills through a complex architecture project.

Realm C: Leadership and Practice:
Architects need to manage, advocate, and act legally, ethically and critically for the good of the client, society and the public. This includes collaboration, business, and leadership skills. Student learning aspirations include:

- Knowing societal and professional responsibilities
- Comprehending the business of building.
- Collaborating and negotiating with clients and consultants in the design process.
- Discerning the diverse roles of architects and those in related disciplines.
- Integrating community service into the practice of architecture.

C.1. Collaboration: *Ability* to work in collaboration with others and in multi-disciplinary teams to successfully complete design projects.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 204 Architecture Design Studio 4, ARCH 342 Urban Design and ARCH 343 Introduction to Landscape Architecture of ability to work in collaboration with others to successfully complete design projecs. Evidence was found in ARCH 102 Architecture Design Studio 2 of ability to work collaboratively in multi-disciplinary teams, and in ARCH

453 Energy and Design of multidisiplinary research methods used in collaborative teams to successfully complete design projects.

C.2. **Human Behavior: *Understanding* of the relationship between human behavior, the natural environment and the design of the built environment.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 342 Urban Design at the level of ability.

C.3 **Client Role in Architecture: *Understanding* of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.**

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 444 Housing & Economics and ARCH 557 Professional Practice.

C.4. **Project Management: *Understanding* of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods**

[X] Not Met

Visit Two Team Assessment: Evidence was found in ARCH 556 Project Management of understanding methods for recommending project delivery methods. Evidence was not found of understanding methods for competing for commissions, selecting consultants, and assembling teams.

C.5. **Practice Management: *Understanding* of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.**

[X] Not Met

Visit Two Team Assessment: Evidence was found in ARCH 556 Project Management of understanding of business planning, time management, and risk management. Evidence was not found of understanding of principles including financial management, negotiation, mediation, arbitration, and recognizing trends that affect practice.

C.6. **Leadership: *Understanding* of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities**.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 557 Professional Practice of understanding of techniques and skills architects use to work collaboratively in the building design and construction process. Evidence was found in Arch 444 Housting & Economics of understanding of techniques and skills architects use to work collaboratively on environmental, social and aesthetic issues in their communities.

C.7. **Legal Responsibilities: *Understanding* of the architect's responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.**

[X] Met

Visit Two Team Assessment: Evidence in multiple areas was found in ARCH 444 Housing & Economics, and in ARCH 557 Professional Practice. Evidence of understanding of historic preservation law was found in ARCH 306 Architecture Design Studio 6, and of accessibility law in ARCH 408 Architecture Studio 8.

C.8. Ethics and Professional Judgment: *Understanding* of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues, and responsibility in architectural design and practice.

[X] Met

Visit Two Team Assessment: Evidence was found in ARCH 444 Housing & Economics regarding understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues. Evidence was found in ARCH 557 Professional Practice regarding understanding of responsibility in architectural design and practice.

C.9. Community and Social Responsibility: *Understanding* of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.

[X] Met

Visit Two Team Assessment: Evidence was found of understanding of the architect's responsibility to work in the public interest in ARCH 444 Housing & Economics, to respect historic resources in ARCH 407 Architecture Design Studio 7 and ARCH 453 Energy and Design, and to improve the quality of life for local and global neighbors in ARCH 444 Housing & Economics.

Realm C. General team Commentary: Students demonstrate an understanding of the role of the architect in various but not all forums. Collaboration is a hallmark of the curriculum, as is an emphasis on community and social responsibility. Further, all students must complete a summer internship at an architecture firm which adds to their understanding of practice. The architect's role as the team Leader in design is absent—including competing for commissions, selecting and collaborating with consultants, and serving as team leader during construction.

PART TWO (II): SECTION 2—CURRICULAR FRAMEWORK

II.2.1 National Authorization: *The institution offering the substantially equivalent degree program must be or be part of an institution that has been duly authorized to offer higher education in the country in which it is located. Such authorization may come from a federal ministry or other type of agency.*

[X] Met

Visit Two team Assessment: The APR includes a certificate from the Education Evaluation Commission, National Center for Academic Accreditation & Assessment, Saudi Arabia, confirming that the Bachelor of Architecture program is accredited nationally.

II.2.2 Professional Degrees and Curriculum: *For substantial equivalency, the NAAB requires degree programs in architecture to demonstrate that the program is comparable in all significant aspects to a program offered by a U.S. institution. This includes a curricular requirement that substantially equivalent degree programs must include general studies, professional studies, and electives.*

Curricular requirements are defined as follows:

- ***General Studies***. *A professional degree program must include general studies in the arts, humanities, and sciences, either as an admission requirement or as part of the curriculum. It must ensure that students have the prerequisite general studies to undertake professional studies. The curriculum leading to the architecture degree must include a course of study comparable to 1.5 years of study or 30% of the total number of credits for an undergraduate degree. These courses must be outside architectural studies either as general studies or as electives with content other than architecture.*

  This requirement must be met at the university or tertiary school level. Post-secondary education cannot be used to meet this requirement.

- ***Professional Studies***. *The core of a professional degree program consists of the required courses that satisfy the NAAB Student Performance Criteria (SPC). The professional degree program has the discretion to require additional courses including electives to address its mission or institutional context.*

- ***Electives.*** *A professional degree program must allow students to pursue their special interests. The curriculum must be flexible enough to allow students to complete minors or develop areas of concentration, inside or outside the program.*

[X] Met

Visit Two Team Assessment: The 5 year, 171 credit hour B.Arch. program includes 42 credits of the Effat University General Education Program, 3 credits of College Core Math, and 126 credits in Architecture of which 114 are in required course work and 12 credits of electives. There is space within the elective offerings for students to complete a 4-course concentration, and a plan to advise incoming students regarding options available in their elective courses. Selected course offerings include study abroad opportunities as described in meetings with students and faculty.

II.2.3 Curriculum Review and Development

[X] Met

Visit Two Team Assessment: The team found evidence in the APR on p. 147-149 of the curriculum review and development processes. This includes evidence of input from the Deanship of Quality Assurance as an additional element of curriculum review and development connecting the architecture program within Effat University planning and assessment standards and processes. Architecture Program Curriculum Review and Development benefits from annual input in written reports provided in the team room from U.S. partner programs at University of Miami and Kent State University. The APR provides evidence that most faculty are authorized to practice in Saudi Arabia through their credentials. These faculty members can engage in practice through policies outlined in the Effat University Consultancy Manual, which was available in the team room.

PART TWO (II): SECTION 3—EVALUATION OF PREPARATORY/PREPROFESSIONAL EDUCATION
Because of the expectation that all graduates meet the SPC (see Part Two, Section 1, above), the program must demonstrate that it is thorough in the evaluation of the preparatory education of individuals admitted to the NAAB substantially equivalent degree program.

In the event a program relies on the preparatory educational experience to ensure that students have met certain SPC, the program must demonstrate it has established standards for ensuring these SPC are met and for determining whether any gaps exist. Likewise, the program must demonstrate it has determined how any gaps will be addressed during each student's progress through the substantially equivalent degree program. This assessment should be documented in a student's admission and advising files.

[X] Met

Visit Two Team Assessment: The program provided evidence describing evaluation of preparatory education, in an outline submitted in the team room. This involved admissions criteria, Math and TOEFL placement requirements. Students requiring additional preparation are placed in a Pre-College Foundaiton Year at Effat English Academy. No SPC are covered in the Pre-College Foundation Year program. Evidence of transfer credit evaluation was submitted. The architecture program requires that all SPC to be completed at Effat University.

PART TWO (II): SECTION 4—PUBLIC INFORMATION

II.4.1 Statement on Substantially Equivalent Degrees

In order to promote an understanding of the substantially equivalent professional degree by prospective students, parents, and the public, all schools offering a substantially equivalent degree program or any candidacy program must include in catalogs and promotional media the exact language found in the NAAB Conditions for Substantial Equivalency*, Appendix 6.*

[X] Met

Visit Two Team Assessment: The information can be found on Effat University's website at https://www.effatuniversity.edu.sa/English/Academics/Undergraduate/CoAD/Pages/ARCH.aspx

II.4.2 Access to NAAB Conditions and Procedures

In order to assist parents, students, and others as they seek to develop an understanding of the body of knowledge and skills that constitute a professional education in architecture, the school must make the following documents available to all students, parents, and faculty:

The 2012 NAAB Conditions for Substantial Equivalency
The NAAB Procedures for Substantial Equivalency (edition currently in effect)

[X] Met

Visit Two Team Assessment: The information can be found on Effat University's website at

https://www.effatuniversity.edu.sa/English/Academics/Undergraduate/CoAD/Documents/NAAB-Substantial-Equivalency/Condition-for-NAAB-Substantial-Equivalency.pdf

https://www.effatuniversity.edu.sa/English/Academics/Undergraduate/CoAD/Documents/NAAB-Substantial-Equivalency/Procedure-for-NAAB-Substantial-Equivalency.pdf

II.4.3 Access to Career Development Information

In order to assist students, parents, and others as they seek to develop an understanding of the larger context for architecture education and the career pathways available to graduates of substantially equivalent degree programs, the program must make appropriate resources related to a career in architecture available to all students, parents, staff, and faculty.

[X] Met

Visit Two Team Assessment: The information can be found on Effat University's website at:
https://www.effatuniversity.edu.sa/English/Academics/Undergraduate/CoAD/Pages/ARCH.aspx

II.4.4 Public Access to APRs and VTRs

In order to promote transparency in the process of substantial equivalency in architecture education, the program is required to make the following documents available to the public:

The final decision letter from the NAAB
The most recent APR
The final edition of the most recent Visiting team Report, including attachments and addenda

These documents must be housed together and accessible to all. Programs are encouraged to make these documents available electronically from their web sites.

[X] Met

Visit Two Team Assessment: The information can be found on Effat University's website at https://www.effatuniversity.edu.sa/English/Academics/Undergraduate/CoAD/Documents/NAAB-Substantial-Equivalency/Effat-University-APR-of-Visit-2-Spring-2018.pdf

III. Appendices

Appendix 1. Program Information

A. History and Mission of the Institution and the Program

APR, pages 5, 8

B. Long-Range Planning

APR, page 64

C. Self-Assessment

APR, page 79

Appendix 2. Conditions Met with Distinction

A.1. Communication Skills
B.3. Sustainability
I.1.4 Long-Range Planning
I.1.5 Self-Assessment Procedures

Appendix 3. Visiting team

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IV. Report Signatures

Respectfully Submitted,

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team chair

Tamara Redburn, AIA
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