Dar Al Uloom University
College of Architectural Engineering and Digital Design
Program of Architecture
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ARCHITECTURE PROGRAM REPORT

The Program of Architecture at Dar Al Uloom University

Submitted to the National Architectural Accrediting Board (NAAB) for the Substantial Equivalency of the Architecture Program, Visit 3

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ABBREVIATIONS:

Dar Al Uloom University	DAU
National Commission for Academic Accreditation and Assessment	NCAAA
University Preparatory Program	UPP
College of Architectural Engineering and Digital Design	CADD
Committee of Program Development and Accreditation	CPAD
Architectural Program	ARCH
Interior Design	IDE
Graphic Design	GDE
National Architectural Accrediting Board	NAAB
Kingdom of Saudi Arabia	KSA
Saudi Council of Engineers	SCE
Saudi Commission for Tourism and Antiquities	SCTA

Part One: Institutional Support and Commitment to Continuous Improvement

Section I: Identity & Self-Assessment

1.1.1. Overview of DAU

Founded since 1994 by His Excellency Abdulaziz bin Ali Al-Tuwaijri, the company of Dar Al Uloom has been dedicated to the educational services in the Kingdom of Saudi Arabia. The milestone of 3rd March 2008 marked the higher university education of Dar Al Uloom further to the long established fully-fledged K-12 schools. This date endorsed the resolution No. 3/52/1429 by the Custodian of the Two Holy Mosques and Chairman of the Higher Education Council to establish Dar Al Uloom University under the rules governing private universities. Meanwhile, the educational sector of Saudi has been recently restructured to come under the single authority of the Ministry of Education without separation between schooling and higher education or between male and female education, where the enterprise of Dar Al Uloom demonstrates one prominent model of attaining this national strategy. In particular, the population growth of Saudi with the rapid increase of high school graduates has been absorbed through the balanced opportunity for higher education of males and females in common. For example, the high school graduates who are legible for obtaining the higher education have increased from 192,000 in 2000 to 467,000 in 2013, with an almost equal percentage between male and female students (251,000 males and 216,000 females in 2013). *(Source: Al-Jazeirah Newspaper, April 6th, 2014, issue 15165).* Among the remarkable achievements in this respect is Dar Al Uloom University being the first university in Saudi to offer law studies and architectural education for females.

In terms of quality, the socioeconomic structure of Saudi maintains an increasing standard of living through the diversified oil economy. The major investments in health and education serve the society in correlation to the economic growth. The quality of Saudi education has been given a great emphasis on the national level. The Saudi higher education has assigned the specialized authority of Education Evaluation Commission - Sector of Evaluation & Academic Accreditation (EEC-NCAAA) for rigorous process of institutional assessment and accreditation. Despite being recently delivered, ***Dar Al Uloom University in 22 November 2017 has made a tremendous achievement by obtaining the accreditation of the Saudi National Commission for Academic Accreditation and Assessment (NCAAA) for the institution*** (supplementary 4.3). In parallel, several programs of DAU are prepared for international accreditation in their respective fields of specializations. For example, the School of Law has obtained the world-class French accreditation, whereas the program of Architecture is here prospecting the NAAB substantial equivalency of NAAB**.** The priority of academic accreditation on the national and international levels reflects the committed administration of DAU to offer quality education for social development and contributing to the market's needs. This is clearly demonstrated by the administrative structure of DAU, which designates the Directorate of Quality in tree-structure from the top university management down to the level of individual colleges and programs (Figure 1). The prestigious university campus has inaugurated several colleges in short time span, which now comprises the six colleges of Law, Business Administration, Architectural Engineering and Digital Design, Medicine, Dentistry, Applied Medical Science, in addition to the University Preparatory Program (UPP) and the postgraduate programs in Law and Business Administration.

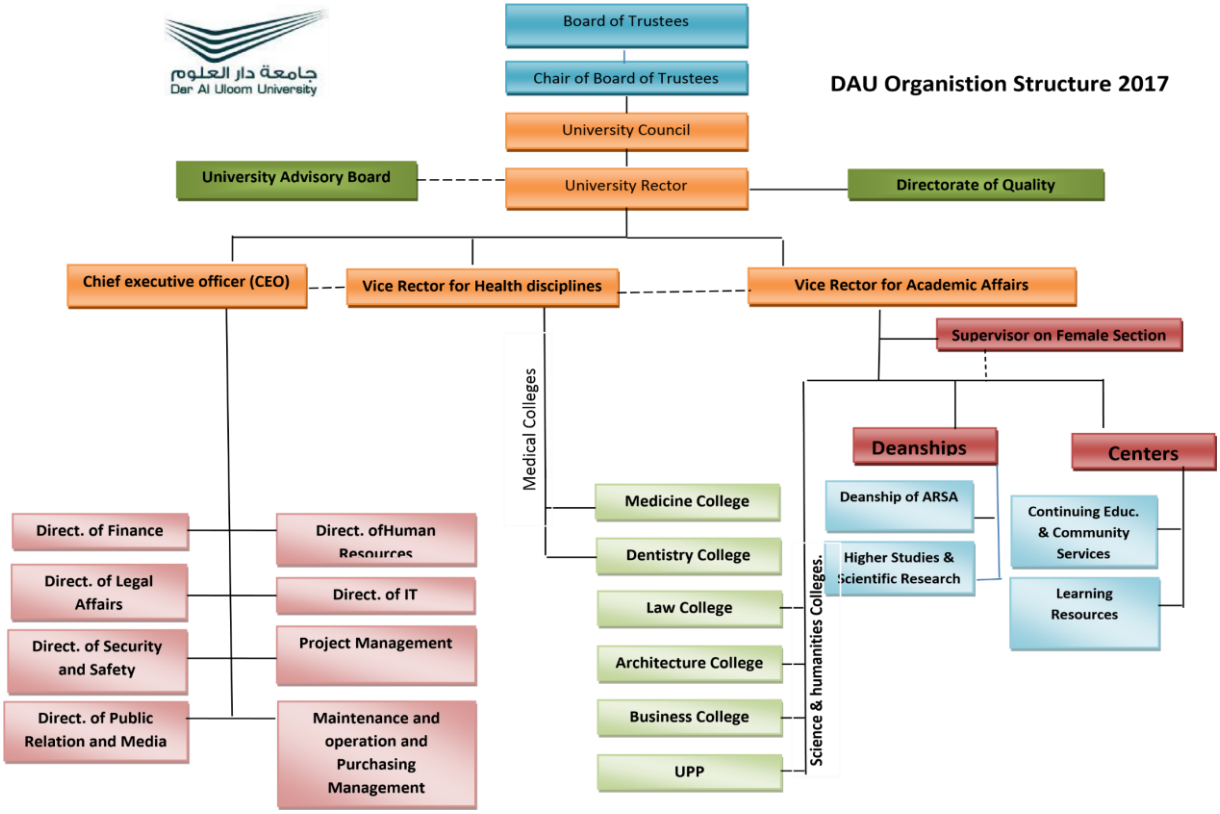


Figure 1. DAU Organizational Structure (*Source: Institutional Self-study Report, submitted to the National Commission for Academic Accreditation and Assessment (NCAAA), February 2016, p.32*)

DAU Vision:

DAU aspires to be a leading regional institution dedicated to educational excellence; innovation, and knowledge building.

DAU Mission:

DAU is a higher education institution that is committed to develop highly qualified and competent students who can function confidently in a real world setting through high quality learning and teaching provision, research excellence, innovations and entrepreneurship and can also serve the social, cultural, and economic needs of communities.

DAU Goals:

DAU has issued the Strategic Quality Plan (2017-2022) with the following goals:

Strategic Goal 1: Organizational Development – Transform DAU to become more streamlined, agile and dynamic that enhances governance and management.

Strategic GOAL 2: Student Success – Recruitment, nurturing, retention and graduation of competent students who are intellectually active, morally adept, socially caring and globally aware in an Innovation-driven knowledge economy and global society through enriched student experiences.

Strategic Goal 3: Educational Excellence – Demonstrate academic excellence in teaching and learning and assuring quality education that creates and sustains a culture of scholarship, and creativity thus enhancing DAU's national and international stature.

Strategic Goal 4: Advancing Scientific Researches and Creative Works – Develop sources of discovery, creativity and innovation that underpin DAU's education programs and its intellectual, social, and economic capital contribution to the society.

Strategic Goal 5: Culture of Community and Dynamic Supportive Environment – Develop, facilitate and nurture a supportive quality environment and support services that are sensitive to the needs of students and all other DAU constituents.

Strategic Goal 6: Resources and Operational Efficiency and Effectiveness – Ensure efficiencies and effectiveness of supports, services and resources development and management to support all aspects of the institution.

Strategic Goal 7: Expanding Engagement and Outreach – Engage and enhance national and international partnerships with academic, industry, community and other partners and values for societal and sustainable development.

Strategic Goal 8: Financial sustenance – Ensure that DAU operates efficiently and effectively within available, feasible and risk managed financial resources.

The self-assessment report of DAU provides the essential guidelines towards achieving the vision, mission and goals in continuous process of recommendations and action plans. The DAU's updated assessment of September 2016 represents the essence of the now-obtained NCAAA national accreditation for the institute. This accreditation ensured the compliance of the DAU's self-assessment with the eleven NCAAA Standards for Quality Assurance and Accreditation of Higher Education Institutions and Programs, which are;

Standard 1: Mission and Objective
Standard 2: Governance and Administration
Standard 3: Management of Quality Assurance and Improvement
Standard 4: Learning and Teaching
Standard 5: Student Administration and Support Services
Standard 6: Learning Resources
Standard 7: Facilities and Equipment
Standard 8: Financial Planning and management
Standard 9: Employment Processes
Standard 10: Research
Standard 11: Institutional Relationships with the Community

An onsite visit by a panel of experts reviews and observes the findings of the self-assessment and provides a report detailing their professional assessment of academic quality in relation to the standards. The NCAAA, after considering the recommendations of the Review Panel, makes a decision regarding accreditation. Current information and documents on this national accreditation are available on the NCAAA website (www.ncaaa.org.sa).

The DAU's self-assessment report of 2016 specified the major statistics on all aspects of the university such as the enrolled students per program and faculty members, in addition to the resulted rating of conducted quality surveys. In this regard, the total number of enrolled students in DAU has reached 5165-males and 3491-females, which reflects the ever increasing number of DAU students in short time span of its foundation since just 2008. Meanwhile, the faculty members and teaching assistance have reached the total of 410 members, which keeps the overall student-to-faculty ratio of only 21.1 in average. The human resource of academic staff in DAU is of majority foreigners with different schools of thoughts, which enriches the learning environment of the university. The self-assessment report concluded the main recommendations with the action plans in progress.

The DAU administration is structured along four deanships to achieve the university goals of quality education, research and community services, which are;

- Deanship of Continuing Education and Community Service
- Deanship of Admission, Registration, and Student Affairs
- Deanship of Graduate Studies and Research
- Deanship of Central Library

Nevertheless, the Directorate of Quality Unit is administered at the level of DAU's Vice-rector with full engagement at all university levels. The Quality administration forms Steering Committees of representatives from all university deanships, colleges and departments for the various quality tasks such as self-assessment, recommendations and producing the DAU Strategic Plan. The Quality Unit not only targets the institutional accreditation, but also encourages the national and international program-level accreditation with full support.

In addition, the University is served by four essential departments which are;

- Information Technology management Department
- Public Relations & Media Department
- Human Resources Department
- Financial Department

Each of the four DAU departments provides the full services required by the university and the public as well. The IT department extends its services of managing the-state-of-the-art digital equipment of DAU, while developing the portal of educational, administrative and community services over the web. Also the same department assists the individual colleges and programs to develop their own website under the DAU portal, including the continuous development of CADD and architectural program sites. The other Public Relations & Media Department plays

an important role in updating both the university and the public as well with the latest developments taking place in connection between the university and the public at large. No event or news is left without being covered by this department and posted or send instantly to the concerned beneficiaries. Meanwhile, The Human Resource and The Financial departments pay every effort to provide the wide range of services to all university staff and students with easiness of information, procedures and full documentation.

The physical context of DAU has extended from the main building in the prestigious Alfalah District of Riyadh to the new Faculty of Dentistry across the front street, in addition to the new mega structure of the University Hospital of 200-beds along the arterial King Abdullah Road of Riyadh. From the main building in Alfalah, the housing facilities of apartment buildings and car parking lots of up to 2000 cars extend in the surrounding area with the huge Mosque of DAU in the middle. The University is set next to the preexisting schooling facilities of DAU for all grades. The whole context forms a university Campus, which integrates with the surrounding neighborhood in a pleasant and quite atmosphere that enhances the university life. Also the location of this DAU area at the intersection of Riyadh's Northern and Western Ring-roads affords the easy accessibility at the different resolutions of Riyadh, while maintaining the relaxed university environment.

The main building of DAU is one of exceptional characteristics, which integrates the dual male/female indoor sports halls, gymnasiums and swimming pools with the educational facilities of typical classrooms, laboratories and offices at all building floors (Figure 2). Each college occupies one floor in an integrated environment around the glazed skylight of the central atrium, which makes the whole building interactive with pleasant atmosphere among the various colleges. This atmosphere is further enhanced by the central zone between the male and female wings of shared facilities. In this zone, the outstanding DAU auditorium of about 1500 seats with the state-of-the-art audio-visual technology with drop-off circulation in front of the foyer reception makes it the most important community service of DAU, which accommodates major national and international events hosted by the university. The floor area surrounding and above the auditorium are designated for the main DAU administration of The Board of Trustees, Rector-ship, Deanships, Departments with the central library at the top-floor.

The DAU colleges on each floor have equal facilities between the male and the female sections with plenty of seminar and meeting rooms, individual offices of faculty members, seating areas around the central atrium, classrooms, laboratories and other services. This makes each college self-sustained in private premises, while in the meantime integrated at all building floors with comfort. The new ground floor of CADD is exceptional among the other colleges at the upper floors due to its integration with the outdoor of the building's footprint and interior courtyards of hard and soft landscape. This affords the optimal human design for the special nature of design studios in all CADD programs with interactive environment at all university levels and equal physical context for male and female sections. The physical resources of DAU are lavishly equipped with high-standard furnishings of comfort and state-of-the-art IT facilities in all spaces to make it a world-standard university campus with unique learning environment in Riyadh if not in the region.

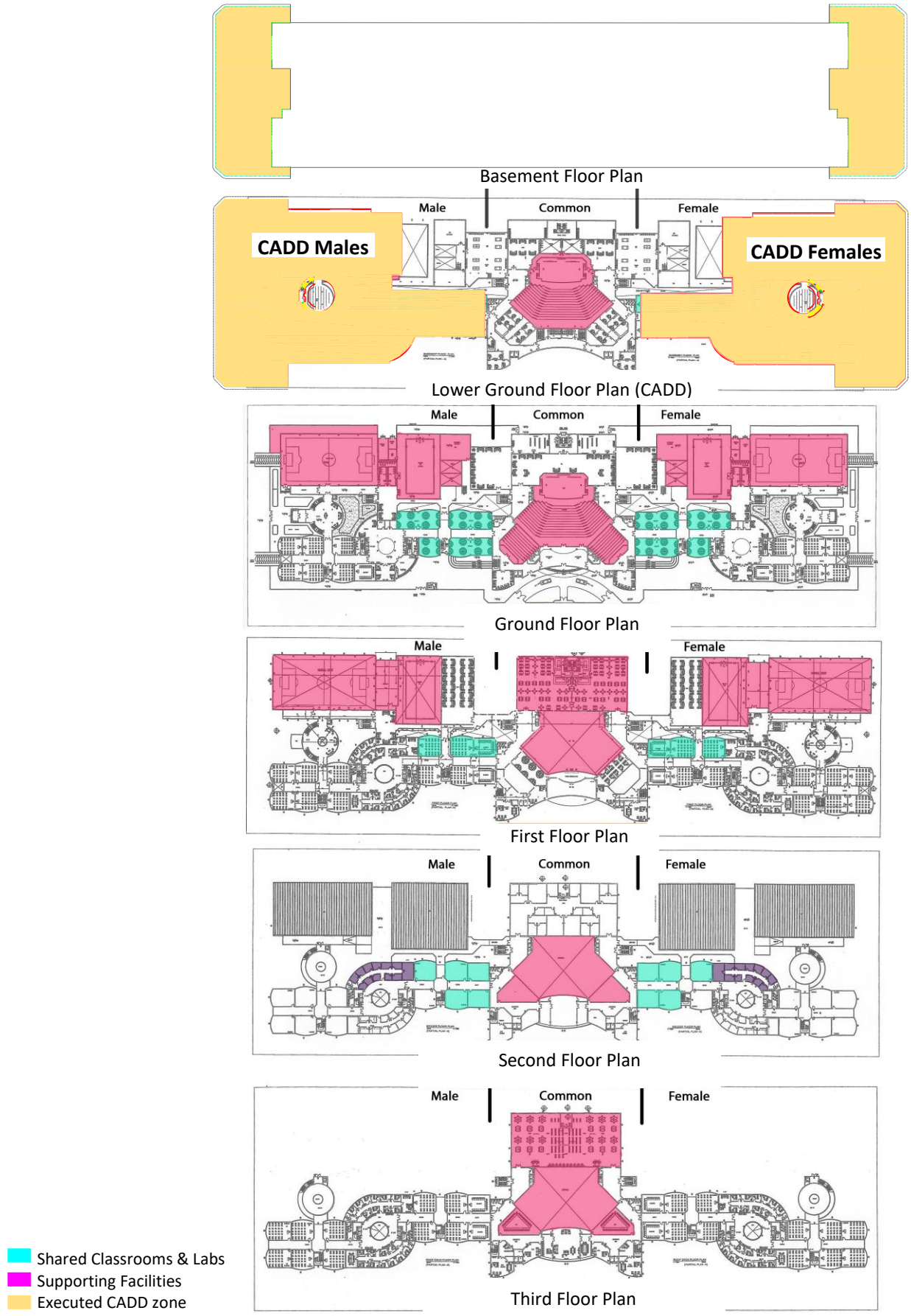


Figure 2. DAU Floor Plan

1.1.2.The College of Architectural Engineering and Digital Design in Perspective

Since its foundation in 2009, CADD not only offers degree programs but also has been engaged in national and international activities with close links to the community. The hostage in 2013 of the World Heritage Day and the participation in collaborative preservation projects with the Saudi Commission for Tourism and Antiquities are prominent examples. Recently CADD has expanded the scope of services with more encouragement of research works for its faculty members and participating in design competitions through the design studio courses of students. The Advisory Committee to CADD composes distinctive experts and professionals in the field on the international level, where the programs are set according to the survey of market demands, especially the female section that offers all three programs of architecture, interior design and graphic design. The prospects of program development and enhancement for CADD endorse the Masters program in Architectural Heritage and the undergraduate Architectural Engineering program for males and females. Meanwhile, all programs of CADD are seeking the top international accreditation or equivalency in each field of study for the highest educational standards.

Two years ago, CADD has moved to its own building with its special design and spirit. Its faculty members with the participations of the students designed the new building and environment; one of the graduated students took the design of the building as his graduation project. CADD has completed the physical resources that are needed to support an optimum educational environment, in terms of the design studios, classes and lecture halls and offices for the faculty members and labs of different types such as computers, material, digital model making and environmental labs, which all are designed and furnished according to the international standards. These physical recourses are found in each of the female and male sections. CADD is given a strong support by the higher administration of the university where it offers three educational programs for the female section, thus conforming with the governmental social strategy to include the Saudi females in the various fields of national development. Supported by generous and committed administration of DAU, and in accordance with the university mission, CADD is progressing with the achievement of its vision, mission, goals and values that state:

CADD Vision:

The College of Architectural Engineering and Digital Design (CADD) at DAU aims to be the leading higher-education institute on the local and regional levels for creative disciplines related to architecture and design, keeping up with the state-of-the-art technology, while preserving the cultural heritage values and the environmental context.

CADD Mission:

The offered programs of the College of Architectural Engineering and Digital Design (CADD) are committed to link the educational environment with the professional practice, thus graduating skillful candidates whom are qualified for affording the

market's needs and participating in the Kingdom's national strategy of sustainable development and exchanging knowledge and expertise with the national and international academic and professional institutes.

CADD Goals:

- Ensure an integrated learning environment characterized by excellence in study plans, qualified faculty members and high readiness in facilities, equipment and advanced learning services.
- Attracting faculty members from various schools of thought to ensure the quality of education for all college programs.
- Stimulate the culture of community service through diverse activities and partnerships and collaborations with local and international organizations.
- Preparation of distinguished cadres in architectural design who are capable of dealing with various architectural projects and taking into consideration the social, humanitarian, environmental and technological aspects.
- Motivating the culture of innovation in the design of internal and external spaces that will bring positive changes in health and well-being of life and quality of living standards for people at home, work and times of pleasure.
- Preparation of cadres characterized by creativity and innovation in the skills of digital design for the presentation, documentation and marketing.

CADD Values:

- Achieve the social equity and transparency in the educational process through the distinctive administrative framework at all CADD levels.
- Graduating students who acquire leadership responsibilities in the practical life of working in groups and participating in the Kingdom's national strategy of sustainable development.
- Effective participation in social services through the extracurricular activities.
- Preserving the values of culture and traditions within the teaching methods.
- Encourage the conceptual innovation of students.
- Hiring faculty members of different schools of thoughts, which ensures quality education.
- Prospecting ambitious academic accreditation on the international level in continuation to the national academic accreditation on the institutional and programs levels.

CADD Committees:

CADD is now supported by extended committees with representatives among the faculty staff to achieve the various tasks as follows:

1. The committee of Administrative Affairs

2. The Committee of Program Development
3. The Quality Unit
4. The Committee of National Accreditation (Saudi NCAAA)
5. The Committee of (NAAB) Substantial Equivalency
6. The Committee of Academic Affairs
7. The Committee of Student Activities
8. The Committee of Professional Training & Community Services
9. The Committee of academic advising
10. The committee of Academic Research
11. The Committee of Alumni
12. The Committee of Learning Resources
13. The Committee of Final Examinations
14. The Committee of CADD's Website Development
15. The Committee of CADD's Archiving and Documentation
16. The Advisory Council to CADD (comprises distinctive members in the field)

CADD Strategic Objectives:

CADD has formed a special committee of the strategic plan for future development. The main objectives of CADD's strategic plan are derived from the DAU's strategic plan (2017-22), which emphasizes the following points for CADD:

1. Quality, effective , efficient, and Dynamic management:
   - Organizational structure
   - CADD Institutional policies
   - Recruit and develop quality human resources
2. Quality learning and Teaching
   - Qulaity assurance process
   - Strengthen Academic programs
   - Strengthen Professional developments & research initiatives
3. Quality student Management and support services.
   - Community service programs
   - Admissions system
   - Learning resources
4. Quality community involvement and Contribution.
   - Community support programs
   - Community networking & partnerships

1.1.3. The Architectural Program in Perspective

The architectural program was established in 2009 as one of the three programs in the college of Engineering and Digital Design, CADD. The five-year program is the first in Saudi Arabia to offer Architectural educational for females, which maintains equity with males for educational services with international faculty members from various schools of thoughts. The original program of 172-credits has been revised and reduced to 166-credits upon the detailed benchmarking with the top national and international programs. On the specific course level, specialized committees of faculty members have been assembled to carry out the continual self-assessment with review of curriculum and course specifications. Regular 5-year overview of the architectural program was last conducted in 2013-2014 and followed by extensive benchmarking of the study plan to end up in the current revision of reduced credits. The architecture program is fortunate by ample facilities of physical resources in dual male and female sections. This is evident by the special placement of the architecture program in the newly allotted space for exclusive facilities, which matches the program's initiative for community services.

The Community service is one of the main objectives of the Architecture program. In this respect, the program organized a series of workshops, seminars and public lectures, which have been given by distinctive professionals in architecture whom are well known to the international community such as the office of Architect Zaha Hadid. These lectures and events were attended by faculty members and students from all the universities in Riyadh. Also the program of Architecture has organized a workshop, which was attended by selected students from all the universities in Riyadh about the rehabilitation of one of the heritage sites in Riyadh. The workshop was operated and supervised by the well-known architect in the Middle East, Arch. Rasem Badran. The program encouraged male and female students to participate, through the design studio courses in various architectural competitions with an increasing number of awarded prizes. Meanwhile, the faculty staff of different backgrounds and school of thoughts benefit the students' learning experience and largely enhance the program's atmosphere. The DAU's decision makers and Board of trustees has given the program the greatest attention being the first of its kind to offer the opportunity of architectural education for females in Saudi. This attention is realized through the excellent connections with the local, regional and international institutes with many MoUs achieved and on the agenda. This has made the program of remarkable reputation throughout Saudi with more ambitious towards the regional and international recognition. In addition to the successful participation in the community services, the architecture program at Dar al-Uloom University has been well known between the universities in the national and regional levels as it has graduated many of professional architects who have proved their success in satisfying the demands of the market. It is also one of the first private programs to go with NAAB, seeking the substantial equivalency, expecting to welcome the third and final NAAB visit by the beginning of fall, 2018. The program has also shown an outstanding progress in the National Commission of Authority for Assessment and Accreditation, NCAAA.

Vision:

To be a leading school of architecture concentrating on creative, sustainable, technological and practical solutions while preserving the cultural and environmental conditions.

Mission:

To pursue professional architectural discipline through combining the rigors of academy with the realities of architectural practice. The aim is to graduate professional architects who can satisfy the market's needs and exchange knowledge and expertise with world's academic and professional institutions.

General Objectives:

1. To join a professional career in the architectural practice and building industry assuming leadership responsibilities.
2. To solve design and project related problems creatively based on sound architectural principles and utilization of digital media.
3. To embrace building technology and digital technology as resources and tools for innovation permitting the exploration of architectural solutions of complexity to be envisioned as a dimension of design excellence.
4. To conduct multi-disciplinary/inter-disciplinary interactions as required by their work.
5. To communicate effectively to meet increasing professional demands.
6. To preserve the cultural and architectural heritage and promote indigenous contemporary architecture.

Specific Objectives:

1. Identify the basic scientific characteristics of building materials and technology and advanced technical tools that can be used in architectural projects.
2. Illustrate abstract ideas to test design alternatives using evaluation criteria and standards.
3. Discuss the research methodologies and approaches to identify form, systems, architectural development and their influence on the social context.
4. Analyze the proper environmental systems for application in integrated projects as embodied energy, passive and active cooling techniques, using appropriate assessment tools for performance evaluation.
5. Develop clear drawings; write specifications to identify the appropriate components, building materials and systems for building design.
6. Apply architectural design criteria and principles in the building design process.
7. Apply environmental and building systems' to design comprehensive functional sustainable projects, using the natural recourses available in the site.

8. Apply the cultural and traditional understanding of the local indigenous, regional and national settings in the design process of projects.
9. Describe the architect skills and techniques required to work in collaboration with other disciplines in building design, construction, and operation stages.
10. Illustrate the values, diverse needs, behavioral pattern, cultures, and, physical abilities and the implication of diversification on the architect's responsibilities.
11. Illustrate technical drawings and models to identify, accessibility and appropriate systems and building materials for projects design.
12. Identify the extent the built environment is designed and adapted to natural environment to satisfy human behavior and needs.
13. Identify the responsibility of the architect to reconcile the community needs in terms of building codes, accessibility, laws and environmental regulations.
14. Illustrate the fundamentals costs of building and financial feasibility such as operational costs; project funding and financing during the design and construction processes.
15. Develop project work plan and detailed schedule of deliverables through all the design stages.

Conceptual Framework of Learning:

1. Encourage creativity of students without imposing conceptual thoughts of instructors.
2. Emphasizing originality in spatiotemporal dimensions with full respect of nature and culture.
3. Incorporate IT technologies in search and presentation techniques.
4. Interact in teamwork with leadership responsibilities.
5. Precedence identification with typological abstraction.
6. Community values in design approach.
7. Flexibility towards future developments.
8. Compromise qualitative and quantitative aspects of problem-solving.
9. Participation in open discussions and critical thinking.
10. Overview of offered courses per semester in interrelated learning, with reflection in studio.

NAAB Substantial Equivalency:

Further to the NABB Visit I report (supplementary 4.4), the architecture program has given every effort to consider the NAAB visit II comments (supplementary 4.5), with full administrative support to satisfy the NAAB substantial equivalency. Each of the NAAB visit II comments has been investigated in details with special committees, formed to take the necessary actions towards achieving the full consideration of all comments as detailed in the following section.

1.1.4. Studio Culture:

Effective Studio Culture Policy is meant to specify the rules and regulations regarding the behavioral and learning activities undertaken in the design studio during the semester. The policy has common issues among all studios of the program, with some specific considerations in vertical levels of the design studio courses. Through the Studio Culture Policy, innovation and discipline are stressed on in the studio environment for the design projects at the all stages of the study plan.

In order to set and ensure the enforcement of the Studio Culture Policy, special committee on design courses of the program has been formed of distinctive and able professionals in the field including the Dean, program Chair and expert design instructors, who took the responsibility of reviewing all design courses in terms of student performance criteria, project typology of each studio, policy and follow up on implementation. Meanwhile, related committee on physical resources of the program takes responsibility for maintaining and improving the physical condition of the design studios as an essential part of the studio culture. Furnishings, smart boards, data show, drawing tables and chairs, and meeting areas have been planned on the state-of-the-art quality standards.

The studio culture policy is also based on the student / student and student/ faculty relationships which should be based on mutual respect whatever the gender, culture, color, religion and physical abilities. The studio culture encourage the students how to think in a creative manner using the advanced techniques but without ignoring the environmental and cultural and understanding of the society.

However, the Studio Culture Policy enhances the studio environment with scintillating visions of creative designs, in addition to the Studio Culture regulations that includes:

- Time schedule of allowed working hours.
- Allowed and not-allowed stuff for students to bring in the studio.
- Strategies for teaching methods and group works.
- Plan of studio works for data-show materials, design sketches and juries during the process of design development.
- Criteria of case study analysis and design development.
- Strategies of student assessment such as conceptual sketch work, manual and digital techniques of design development, study modeling, and final presentation.
- Grading and absence reports on regular weekly basis, (students must know their standards of learning outcomes during the semester).
- Participation and enthusiasm of students in critical thinking, especially during the group discussions and juries.

- Attitude that is accepted in the design studio such as formal presentations and personal communications.

- Hygienic maintenance of the studio environment.

1.1.5. Social Equity:

The program of architecture in DAU represents a benchmark of education in Saudi with social equity between male and female role of learning and community servicing in common. As long as student of either gender or any national or social rank has been accepted and enrolled for the program, the candidate holds equity with all others in academic and social terms. This is evident by a high percentage of female students in comparison to males in the college, where the architecture program keeps balance between female and male students with a ratio of about 1:2 respectively. Meanwhile, the students are largely mixed between Saudis and non-Saudis of both genders, which would be considered as a positive point of the program with different backgrounds and higher opportunity of culture-wise interaction. The same holds for the faculty members who enjoy a wide variety of social and academic backgrounds with different schools of thoughts among both male and female sections, which is beneficial for the academic process with optimal experiences of program learning outcomes. The program hires on part-time basis additional professional experts and distinguished professors of architecture from other institutes in or outside Riyadh who participate actively in the academic teaching and program development, with similar rights and interaction as for the full time staff members. Incentives or benefits of any kind, being it financial or personal, are awarded on equal basis according to the deserved judgment by all involved parties to avoid bias decisions at all. Also policies of program development, including accreditation, consider open-door strategy to both national and international benchmark without segregation from the international community. The large mix of the program is reflected on the ties of student extracurricular activities and academic staff attitude that is gifted by clarity of mind in one of the most mixing situation in the Saudi education and the region as well (Table 1).

Table 1. Number of Students and Faculty Members of the Architecture Program by Gender and Nationality for the Academic Year 2016-17:

Category	Saudi National	International	Total
Male Students	263/253	72/70	335/323
Female Students	105/99	20/18	125/117
Male Staff	9	10	19
Female Staff	2	10	12

1.1.6. Program Response to the NAAB Perspectives

1.1.6.1. Architectural Education and the Academic Context

The interdisciplinary perspective of the architectural program at DAU extends form the core study plan to the wide scope of knowledge and education for both males and females in shared activities on the national and international levels. The prestigious campus of DAU with the state-of-the-art facilities afford the hostage of distinctive events at home such as the World Heritage Day in 2013 where all male and female students of the program participated not only as attendees, but also as organizers of the event under the supervision of various organizational committees headed by the faculty members and the DAU administration. This has given the students (and faculty) a great opportunity to introduce the issue of heritage from an international perspective to the architectural program, which accordingly emphasized the essence of designating projects in the design studio courses of the core program itself, in addition to the regular participation of male and female architectural students of the program in the professional works of the Saudi Council of Tourism and Antiquities within the catchment area of the DAU campus. The program directivity towards the heritage context always has been the issue for developing the skills of students and faculty in common, which is clearly demonstrated by the hostage of short-term workshops by distinctive figures in the field such as the conservation workshops on the historical downtown and the 'Derieah' old town of Riyadh. These workshops have been operated and supervised by the well-known Architect in the Arab region, Rasem Badran.

Similar emphasis is given to the current trends in the architectural profession, which maximizes the student opportunity of comprehending the traditional values while adapting to the knowledge of current influences. Among the most noticeable events in this regard is the program's participation of DAU in the workshop operated by Zaha Hadid's office, which was hosted in Riyadh during October 2017 in King Abdullah Center for Research. In this remarkable workshop, the peers of the renowned office illustrated the works of Hadid, especially in the Middle East, in attendance of students and faculty members of the architectural programs in DAU and Prince Sultan University who jointly sponsored the workshop. The event extended to the review of the invited team for the project works of students from both universities with valued comments to carry on with their achievements and ambitious. As part of the program, the main auditorium of the architectural program in DAU hosted a series of lectures given by the team members about all of Zaha Hadid's sketch works, which were attended by students and faculty members of the DAU program and others from all universities in Riyadh as well. The closing session at the final day of the workshop the architecturally specialized journalist, Joseph Giovanni, demonstrated the influence of Zaha Hadid's works on the profession worldwide in attendance of all students and faculty members.

In parallel, the architectural program has long holding of regular weekly public lectures/workshops during the academic semesters. The top recognized professionals found in the region are invited for students and faculty staff to learn from their experiences that range from environmental to technological and design aspects at different levels of architectural and urban resolutions. Meanwhile, extended workshops of specialized topics such as Green Architecture and digital

media have been given special care for career development beyond the core program. In this respect, the program has now appointed new staff of professional experience to train students such as on the works of producing digital models for the new laboratories operated in the male and female sections in the new CADD space. Nevertheless, the faculty members and students of the architectural program regularly participates in international workshops of summer programs such as in Germany, UK, Morocco and Uzbekistan, which are offered by the hosting universities abroad or through the close links of the program with the 'Heritage Foundation' in Riyadh. Meanwhile, the faculty members have been encouraged with incentives to conduct research activities worldwide and participate in international conferences by scientific contributions. Besides, the program exploits all Saudi opportunities of exhibitions, architectural competitions, workshops, site visits, conferences and exchange programs with the specialized institutes to participate by student works and faculty contributions, where some of the student works had won the 'first prize' in national competitions.

At the core program level, The College of Architectural Engineering and Digital Design (CADD) itself consists of three interdisciplinary programs of unique opportunity for females in Saudi, which are The Program of Architecture, The Program of Interior Design and The Program of Graphic Design. The three programs offer, respectively, The Bachelor of Architecture, Interior Design and Graphic Design, with extended elective courses of minor specialty afforded among each other. Since the program's launching in 2009 for male and female sections, the architecture program has been distributed over 5-years duration. The first year is a University Preparatory Program of pedagogical and linguistic objectives with some College requirements of common courses among the three programs of CADD introduced at the second and third semesters. The architecture core program is distributed over the latter 4-years of the study plan. The students are awarded the Bachelor of Architecture degree upon the successful completion of 172 credit hours and two months of field training. The CADD's Committee of Program Development reduced the number of credits to 166 based on a detailed benchmarking procedure with the top-tier national and US programs. Having graduated the first batch of males and females in the academic year 2013-2014, the architecture program follows up with the graduated students on their career development, where some of them pursue post graduate studies in distinctive universities of the west, and others started their professional career in architectural consultancy firms in Saudi Arabia or back in their home countries. The alumni of CADD are invited to regular meetings in DAU for continual follow-up on their career development and listen to their feedback on the any problems faced in their professional practice for program development.

1.1.6.2. Architectural Education and the Students

Students are eligible to apply for the entry to the architecture program after graduating from the science section of the high schooling system in Saudi. Accepted students are required to take the English placement test for proper distribution among the three-leveled English language skills that terminates with the preparation for taking the IELTS exam at later stage of the study plan. Besides the compulsory English language, students at the preparatory stage (first year) are introduced to the university education through pedagogical courses of elementary mathematics,

basics of computing skills, developing personal communication skills and physical education. The architectural core program is distributed in horizontal and vertical courses along the 5-year study plan. The course-learning outcomes apply the NAAB's student performance criteria to ensure the highest standard of architectural education per course, while satisfying the five pedagogical domains of knowledge, cognitive, IT and numerical, interpersonal and psychomotor skills.

The student is educated to use manual graphics during the first two years of the study plan, with intensive computer graphics thereafter. Meanwhile, the students are educated to be technically sound with critical thinking towards problem solving. With regard to university life, the Student Advisory Council welcomes students at any time to offer help of administrative or academic nature. Also, each student is assigned to an academic advisor who takes full responsibility of responding the student inquires on academic and personal matters as well. The Dean, on his part, holds regular meetings with male and female students to listen to their opinions and inquiries or requests to pursue their studies with convenience. The elected Student Council is set to organize and convey the messages of any kind between the students and the administration at all levels.

The policy of architectural education and students is based on transparency and equity between males and females for the following concerns:

1. Studio courses are intended to develop the skills of students to analyze, articulate and synthesize solutions pertaining to the cultural understanding and physical components of the built environment. In the design studios, students are encouraged to take projects of real sites and real demands according to the national development strategy.
2. The program of architecture is always working to keep the ratio between the faculty and students as around 1:10 in the design studios. Students are allowed to choose the faculty they prefer to be taught from.
3. The supporting services and facilities such as the dual swimming pools and cafeterias as well as the gathering spaces in the college and university enhance the student/student, student/faculty and student/administration relationships.
4. The college organizes regular meetings with the students to listen to their problems and opinions in the program as well as their evaluation to the teaching methods and techniques. The Dean of the College, the Chairman of the Program and the Student Club attend these meetings, in the absence of faculty members.
5. The program policy is directed to build up the architectural personality of the students through the teaching methods, the curriculum, workshops and the summer training course where the students can touch the practical life of the architectural profession.
6. The Student Club established for each of the male and female sections is active in organizing matters among students and between students and the academic staff and administration as well. The Club is active in offering services for the students of the architectural program such as plotting Ao-size of project works at reasonable fees inside CADD, organizing extracurricular activities and conveying messages and request to the college administration.

1.1.6.3. Architectural Education and Professional Registration

Architects of Bachelor degree in Saudi Arabia (and the other Arabic countries of the region as well) are registered as engineers. After several years of experience and engagement in professional works, the registered architect can apply for consultancy licensing upon the approval by the specialized reviewing committee of the syndicate. The Saudi Council of Engineers (which represents the syndicating affairs) is an organization that controls engineering practices in Saudi where architects are registered. As per the rule of the Saudi Council of Engineers, registration to become a professional member of the Council requires 5-years of internship after obtaining the Bachelor of Architecture degree from recognized institution. In addition to that, recently, the Saudi Council of Engineers has set up an exam to those architects who want to practice. Every architect has to pass this exam in order to get the license for practice. A committee has set up this exam from the architectural department at King Saud University, the oldest architectural program in the Gulf Region. This committee was commissioned and supervised by the National Center for Educational Measurement, KYAS, under the umbrella of the Ministry of Higher Education. This exam has been setup, considering the learning outcomes of the Architectural program. KYAS has presented the exam in several meetings and seminars, which were attended by practitioners and faculty members from different universities in the kingdom of Saudi Arabia.

1.1.6.4. Architectural Education and the Profession

Given the booming development in the kingdom of Saudi Arabia, Riyadh City in particular and the whole kingdom in general offer the practicing experience to students of architecture and building industry. The large mix of academic staff in the architecture program reflects on the educational process, which promotes conceptual thinking from different schools of thoughts and backgrounds. Common theme of the faculty staff is their practical proficiency with some having consultancy level of registration due to their long expertise. Thus, combining between the academic and practical proficiency ensures the professional education of the program. Nevertheless, distinctive professionals in the field who are practicing in Riyadh are invited as adjunct professors to get involved in the educational process of the program.

This perfect balance between selective recruitment of professionals and the fortunate physical resources of DAU in Riyadh with many distinguished professionals in reach, contributes to full coverage of professional education for the architecture program. Meanwhile, the study plan itself offers several courses that encounter the issue of professional practicing from various points of view, and culminated by the course entitled “professional practice” at the final semester of graduation. In this course, the architectural practice within the context of the Kingdom of Saudi Arabia is given a great attention with emphases on the relationships between the profession and the society. The program prepares the students to graduate as professional architects who can successfully practice architecture and satisfy the markets needs and professionally work in the interdisciplinary team of the building process. This, together with the required professional training program for graduation, ensures the smooth transition of students from the academic to the professional practice of the architecture program.

Through design studios, instructors used to accompany the students, in field trips, to visit the construction sites and workshops to see and touch the implementation process of buildings, as a professional experience. The students also experienced the design and building process of the new home of the college, CADD. The students were part in the design process and also attended the implementation process as it is in the same complex. Also, in the university complex, a new building, the college of dentistry has been erected according to the design by the former Dean of CADD, Dr AlMusharaf, whom supervised the implementation process as well. The architecture students, in all classes used to visit the implementation process of that building since its foundation until the building is completed and used, students were accompanied by their courses instructors, as part of the teaching process. Additionally, Riyadh is experiencing a tremendous revolution in building industry. Wherever you are, you can see a tremendous construction cranes, erected in the sky of the city. This has made the architecture students being exposed to vast construction process all over the Riyadh metropolis.

1.1.6.5. Architectural Education and the Society

The establishment of the architecture program at DAU contributes to the Saudi community services through the participation in the national development program, which solves out the problems that directly affect the lifestyle of the society. The program of architecture is publicized through various means of mass media such as the web access, audiovisual presentations, welcoming visits of high-school students and the publication of DAU brochure with full details on the program in the CADD catalogue. The academic calendar of the program announces to the public the application process and registration with the curriculum description and schedule of student registration for the offered courses per semester. Meanwhile, all of the general cultural and social events with the professional training programs and consultation services are made accessible to the public of various interests.

The design studios of the architecture program, which is the spine of the study plan, introduce real life projects to students at the various levels of the study plan. This is evident by the graduation projects, which starts by extensive search of real projects serving the community. The objective is to maximize the cultural values of the projects in real life situations. This task of project searching is enforced on males and females in common, which proves the usefulness of the female interaction with the society through the architectural education. Moreover, each design studio starts with case study analysis that incorporates the social aspects in the selected case of different cultures. Thus, the student becomes aware of the design approach with the human diversity in perspective. The social approach of the design studios tones up the education of the architecture program with the objective of architectural heritage preservation that considers the design of social values.

1.1.7. Program Self-Assessment Procedures:

The key issue of self-assessment sustains the process of development for the architecture program in DAU. Statistics and benchmark surveys of the program are taken as indicators of strengths, opportunities and priorities of development. The database information on the program includes students, staff, curriculum, physical

resources, financial resources and community services. The performance criteria of the program are evaluated from the collective profile down to the detailed curriculum and course delivery. Thus all candidates affiliated to the program are involved on individual and interactive basis for effective program assessment. Continuous process of assessment indicators overviews the major internal driving forces of thematic curriculum assessment at the course-level classification with the essence of the Graduation Project assessment, in parallel to the program's external factors of students' summer training, extracurricular activities, employment of graduates, alumni society, human resources of the program, administrative structure and the system of academic advising. Each of these assessment indicators is explored in depth with correlative recommendations for future progress of the program.

The most recent statistical reporting of DAU Quality Office on CADD's performance demonstrates the satisfactory results of CADD programs in general including the architectural program. The conducted surveys includes the level of student satisfaction with the educational experience for every academic level up to graduation, the survey on program evaluation, the survey on faculty satisfaction with the offered academic services and environment, and the survey of course evaluation for all offered courses. The monitored results of the University Quality Unit show above average satisfaction with the offered academic services among both students and faculty members and used as major indicator of self-assessment tool towards future enhancement and development of the offered programs.

1.1.7.1. Indicators of Curriculum Level Assessment

Continual curriculum benchmark of the architecture program attempts to catch-up with the top-tier NAAB accredited programs of the US, in addition to King Saud University of NAAB substantial equivalency in Saudi with regional reputation. In this benchmark process, the curriculums of the selected programs are classified into the requirements of general education, college and core curriculum including the elective and COOP/Training parts. Resulted benchmark verifies the curriculum improvement in terms of contents and the allocated credits per course. Optimized curriculum benchmark, thus, ensures the total encounters of student performance criteria in NAAB accreditation with total credits closer to average. Homogenous pre-requisite structure of vertical courses by theme is distributed semester-wise in bell-shaped study plan for the benefit of most efficient student performance in the program.

The most realized assessment of the curriculum is the elective pool, which has been enhanced in qualitative and quantitative terms. The benchmarked shortage of limited credits and the lack of student selection for majoring elective subject have been given careful consideration in the revised study plan. Now the elective courses count six compared to only four in the original study plan. Also the elective topics have been classified in continuation to the core program into digital design, cultural topics, environmental control and interior design, with minimum five-courses per elective topic. The dynamic curriculum structure between core and elective courses allows their swap for curriculum updating in the benchmark process. Market oriented curriculum towards the end of the program with training

experience represents the essence of program benchmarking. The opportunity of one important benchmark finding is the possibility of accepting credit-equivalent COOP program in compensation of the elective courses of the core program as learned from the current trend in the US top NAAB accredited programs. This would further strengthen the curriculum into the practical field and the job-finding task according to the market demands.

1.1.7.2. Assessment Indicators of Curriculum Outcomes

Indicators of curriculum outcomes is a two-way process where the top-bottom analysis reviews the collective statistics of program performance in gross measures with their results impacting on the individual course level development, while the bottom-top approach starts from the course-level assessment towards their collective impact on the program development. The method of assessment compares the planned matrix of student performance criteria to the course list versus the afterward achievement of the same matrix. Through this single overview, the weaknesses of curriculum learning outcomes can be identified for future recommendations. The future strategy points out the failing performance criteria to be intensified through more encounters by other courses than the planned, or adding specific contents within courses to enforce the targeted performance criteria, or even considering the addition of special courses within the core or elective program to achieve the missing criteria. Of major importance in this process is the initial formulation of the NAAB matrix itself, which lists all the student performance criteria of the NAAB to be met by the list of courses in the program, thus, ensuring their match without any blank row or column. In this respect, a clear process of building up the NAAB matrix has been identified and finalized as follows:

1. Conducting workshops to the faculty members of the program on the 32-criteria of student performance to be achieved.
2. Asking the faculty members of each course of the program to pick the most appropriate student performance list among the 32-criteria of the NAAB.
3. Aggregating the received lists from the faculty members in one matrix format.
4. Reviewing the resulted matrix to ensure the coherent distribution of student performance criteria among the course inventory.
5. Feeding back the revised matrix to the course instructors for adaptation.
6. Confirming the implementation of the finalized NAAB matrix at the course-level learning outcomes.
7. Following up on the NAAB course file to ensure the student performance criteria are being met in each course.

Once any deficiency is observed for any one course in achieving the intended NAAB student performance criteria, the reversed process takes place from the course-level upwards. In process, the course committee that includes the instructor with the course coordinator and other specialized members of the subject work together for specifying the reasons behind the unsatisfactory meeting of student learning outcomes. Upon the committee's recommended reporting on the improvement plan, the defects of course delivery is enforced and reintegrated to the NAAB matrix

system for reevaluation until all student learning outcomes are adequately met with satisfactory results.

1.1.7.3. Indicators of Course Level Assessment

Further to the curriculum-level and learning outcomes, the level of individual courses follows a similar process of benchmarking with counterparts of internationally accredited programs. The course-level assessment, however, performs a different strategy of coordination within the program of DAU for specialized benchmarking criteria. In this regard, the core curriculum is subdivided into thematic course fields such as design, construction, history & theory, urban and environmental courses, where each of these fields assigns a committee of specialized faculty members of the program to conduct the benchmarking assessment on their theme courses. The course committee selects coordinator to take responsibility for the strategy of assessment with the recommendations for improvement. The course instructor by default becomes part of the thematic course committee to share opinions with other members for a full investigation of course materials. The committee meets on regular basis at least once a month, with recommended actions to be taken.

Parallel to the thematic course committees, the program Chair conducts comprehensive review on all courses for thorough inspection of course documents. In this double-checking process, the Chair invites the course instructor and coordinator as well as any other appropriate staff member of concern with the course to discuss the detailed deliverables of the course from all considerations of the academic standard. The objective of comprehensive feedback on each course enumerates the following benefits:

1. Consistent course material regardless of instructor change at any time.
2. Share opinions for the best qualitative benchmarking on each course development.
3. Avoid personal thoughts or teaching methods that are not internationally recognized.
4. Archive the chronology of course development for reference whenever needed.
5. Ensure the achievement of student performance criteria according to both NAAB and NCAAA national accreditation.

With regard to the indicators of course assessment, two comprehensive course files are prepared from the semester day one of each course and progress with the course delivery until the final submission two-weeks from the semester's termination. The first course file concerns the NCAAA, the National Accreditation and Academic Assessment requirement for program accreditation, which includes a checklist of several items to be documented such as course specification, course report, student assessment, lecture notes, assignments and samples of best, average and border performance of students throughout the course delivery. Similarly, comparable course file of the NAAB compiles the checklist of documents for each course also with samples of high pass and low pass of all exercises, projects and assignments and research works of students registered in the course. Thus, tracking the course file whether of the NAAB or NCAAA provides a full

configuration of the course strengths and weaknesses to be considered for improvement.

1.1.7.4. Student Indicators of Course Assessment

The Dean of CADD holds regular closed meetings at least twice a semester with male and female students for listening to their opinions on the educational process and records any complaints raised on specific courses or learning constraints to be investigated. This type of student assessment not only on course level, but in extended scope of the learning process is believed to have powerful indicator of assessing any course delivery due to the open discussion of more interaction than questionnaires. Also the Dean's direct investigation of any course matter tends to speed up the resolving measures without having to wait until the time is over giving no chance for any one course to be back on track. Indeed the Dean's and Vice Dean's offices in both male and female sections are open anytime for receiving student complaints of any kind that includes indicators of course assessment.

Meanwhile, the academic supervisor as part of his duties may receive any complaint regarding course matters to start the process of investigation directly with the course responsible, or convey the matter to the program council meeting for decision making. Moreover, after announcing the course results, students may raise grade objection request over the university IT system, which may reopen extended investigation of the approved course results including the continuous assessment throughout the semester. During this process, opinions are investigated from all the parties involved, including the instructors, so as to avoid any subjective thoughts of individual student cases.

Apart from the interactive student indicators of course assessment, each student at the end of the semester completes the questionnaire of course assessment over the university IT system. Without which the student can't access the grade result, thus made compulsory before emotional assessment after grading and ensures 100% student assessment. The questionnaire is supposed to cover all areas of course assessment including teaching methods, learning outcomes and instructor's commitment to the course delivery with the qualitative/quantitative criteria of the course assessment, in addition to the administrative matters of the course. The completed student questionnaires of each course are processed in the university IT system with final report of statistical data on rating each assessed question in average measure from 1-to-5 with the average total, in addition to their average summed assessment of the course.

In case, any of the courses is divided into more than one section with different instructors, or if the course is taught separately between male and female sections, each course section has a separate assessment questionnaire. Thus, the cross-assessment of students in different sections is used as an indicator for the overall course evaluation with the necessary measures to be taken in future course improvement plans. Overview of student assessment indicators ensures the coherence of course deliverables in time series as well as parallel per semester instruction, while ensuring the ongoing achievement of student performance criteria during the semester before things are over. Left to mention is the student indicator

of the course assessment by the instructor him/herself where the feedback and interaction of students during the semester can improve the strategy of on-spot further course delivery.

1.1.7.5. Faculty Indicators of Course Assessment

Through the university IT system, each instructor conducts the 'course report' at the end of the semester that includes the assessment of student learning outcomes as the course progressed. The same report covers the effectiveness of conducted teaching methods and any eccentricity from the preplanned course specification in justified reasoning. The objective is to include the instructor inside the course evaluation process in self-assessment attitude as an essential part of the architectural education. Meanwhile, peer review indicator of course assessment lifts any bias in self-evaluation according to rubric cross-checking among instructors and coordinators or course committees. In more complicated cases such as grade objection request by more than one student of the same section, senior external faculty members of professional and academic experiences are invited as referees to form a committee for reviewing the case with future recommendations based on the course assessment. In this regard, the faculty indicators of course assessment ensures the fairness of evaluation strategy by more than one faculty per course.

1.1.7.6. Indicators of Graduation Project Assessment:

The graduation project represents the essence of the architecture program in cross-sectional examination of the student performance criteria. The structure of the graduation project follows the international norm of subdivision into a separate research programming and followed by the design studio, hence extending along the final two consecutive semesters. Although the second stage of design studio weights the heavy-steak of the graduation project, the prior programming stage is crucial for the foundational strategy of the whole graduation project. Each graduating student is required to select the type of project to conduct. The programming stage encourages students to select projects of importance to the society as part of the community services. For example, the first two batches graduated students with projects of social value such as the new extensions of DAU campus, museum, petrochemical laboratory and the new Riyadh train Station.

These types of projects, while being diversified, integrate with the thriving urban development of the society such as the first mega network of railway connections on the regional level of the Gulf States up to Mecca with Riyadh at crossroads. Certainly this would change the culture into a more dynamic transit of population and goods, provided that the emphasis of the architecture program in DAU has always been directed towards the architectural heritage scope. Further to the rational project selection, detailed investigation of the building typology with precedents of world-class case studies chosen for analysis in terms of spatial composition, structure and the human program. Parallel to the typological building research, real project experience of data collection and site analysis distribute students among the concerned developers of selected projects for client interviews and program outline. Back in studio, the collected project information along with the analyzed precedents would formulate the design problem for space programming in all what it means.

Upon the project program, the design phase concentrates on creative architecture of problem-solving with the application of all gained skills throughout the study plan's learning outcomes. The practical nature of the project invites professional juries with the public access to the gallery for real-world assessment of student performance criteria.

In the graduation project each male and female student chooses a real project with real program demands that would be one of the projects in the national planning policy of development. The graduation project is a comprehensive one that represents the learning outcomes of the student in the architectural program. The graduation project is an excellent chance for the evaluation of the level of the program. In the final jury of the graduation project, professors and faculty from other universities, practitioners and faculty members in the program are invited to attend the jury and evaluate the projects. All the jurors are asked to submit a report about the project in order to be taken into account to develop the program.

1.1.7.7. Indicators of the Market Study

Essential part of the program's assessment process is to study the market itself where the student-learning outcomes should orient. The program's strategy is two-sided where distinctive professionals and world class events are hosted in DAU for workshops and transferring their expertise to students, while in the meantime students are encouraged to attend professional conferences on the latest practices and conduct field works to understand the market by themselves with advising guidance. Best timing for students to tackle this confrontation is during the study plan itself for self-confidence of adapting to the market. Although the course of professional practice directly reflects the market issue in the final semester, several courses on architectural professionalism such as professional practice, construction documents and possibly electives with the training program are positioned prior to the graduation semester. These practical oriented experiences attempt to introduce students to the market at large. The focused course of professional practice, however, allows students to conduct research on the market practice such as registered architectural consultancies, classified contracting firms, public agencies and the authority of building ordinance with the process of building licensing.

The College of Architectural Engineering and Digital Design (CADD) had organized several meetings with professionals and offices practicing architecture, including owners of architectural firms, to identify the market's demands. Discussions were concentrating on what the market needs in order to develop our architectural curriculum for graduating professional architects who can successfully satisfy the market's needs. Also the opinions of the attendees were collected about the performance of our graduated architects and to what extent they satisfying the needs of development. In addition to this, the professionals indicated that the Saudi market is in need of more architects to meet the extra demands for the enormous national development plan that is spreading all over the Kingdom.

1.1.7.8. Indicators of Professional Training

The program's continual ties with the community have benefited the required 60-day professional training of male and female students in training programs and collaborative projects. This training program gives the chance to our students to evaluate the program from the professional practice point of view. Also, the offices and firms in which our students are getting their training are requested to report the performance of our students and the extent that they are coping with the practical projects demands. This remarkable experience represents the leading batch of female architecture students in Saudi to perform a practical role in the society with future opportunities of permanent employment. Rigorous assessment of the training program for graduating students since summer 2013 has performed intensive rubric system for learning outcomes especially on crash courses of architectural heritage working techniques, field works in historical sites and the participation in project works of The Saudi Commission for Tourism and Antiquities (SCTA) in office and construction field. Each student is required to present a report on the training program with questionnaire form filled out by the employer to evaluate the student performance.

The training program resulted in highly graded reports by both the firms in which our students are being trained and the program supervisors in coordination, especially for the performance of females. Female students were eager to prove themselves in the practical field, which confirmed the suitability of Saudi women in architecture works for the first time in Saudi history of education. Future ambitious of the program continues in this line of success, particularly for the in-progress Masters program in architecture heritage for both genders with major emphasis on practical and research skills of learning outcomes.

Meanwhile, the external training programs that the college of Architectural Engineering and Digital Design is promoting every summer such as the programs of the Welsh School of Architecture, the low Carbon Architecture Summer program at Cardiff University in UK, Berlin summer course in building construction, and the Saudi Heritage association summer programs in Morocco and Uzbekistan. These programs include visits to remarkable sites, architects and practitioners' lectures, workshops and the real participation in various project stages, which all get our students exposed to international experience of training with positive results.

1.1.7.9. Indicators of Exit Survey Assessment

On the fulfillment of program requirements, including the 60-day training program, graduating students are asked to undertake the exit survey of major indicator for overall program assessment of the program learning outcomes (supplementary 4.6). Statistics of the survey questionnaire provide indicators of assessing the program strengths and weaknesses, with the students' opinions on the possibilities of program improvement. The survey results compare between the male and female sections, with any differences to be taken into account for future plans of improvement. Meanwhile, the opinions and comments raised by the graduated students in the exit survey have been highly taken into consideration by the Dean and Chair of the program to be studied & implemented by the program development committee.

1.1.7.10. Alumni Indicators of Assessment

Regular meetings are taking place on the university level and the architecture program as well. Such meetings, which are covered by the massmedia, are organised to strenthen the relation between the graduates and their university and program. For the architecture program, the intention is also to listen to the graduates' opinion on the program from their experiences with the Saudi Market. Their opinions about the program and the curriculum were collected based on their experience in practicing architecture and to what extent they are satisfying the market's demands. Their evaluations to the program and curriculum have been highly considered in the program development and the teaching methods and techniques. The initial indicators verifies the achievement of learning outcomes with the graduates occupying a variety of professional posts such as academic staff, professional firms and applying for graduate studies. Also non-Saudi graduates were recognized in their home syndicates with the degree obtained from the program. Future plans would strengthen the alumni community of the program with more batches yet to come.

1.1.7.11. Program Strengths, Weaknesses and Future Challenges

Rigorous self-assessment is taking place through internal and external measures at all levels of the program, which details the procedures of resulted indicators. The various committees of the program monitor the internal performance to specify strengths and weaknesses for improvement. Each faculty member is assigned to a number of program committees that review the academic performance with reporting for future plan development. This includes curricular and administrative matters at the level of detailed course components. Meanwhile, external measures are set at the university and ministerial levels to review the various aspects of program performance for evaluation and feedback of required actions. The status quo of the program's self-assessment can be summarized in observed strengths, weaknesses and future challenges.

1.7.11.1. Program's Strengths:

1. The first program in Saudi to offer architectural education for female students

The initial foundation in 2009 of the program was based on two identical sections of males and females with respective academic staff of various nationalities, thus achieving human equity of interactive learning environment regardless of race or gender while preserving the conservative society of the Kingdom. This unique formation of the program was the first of its kind for architectural education in Saudi, which has proved useful with graduates from both sections of the program. The program graduates have succeeded in occupying successful career in professional practicing. In a regular meeting with them, they have expressed their satisfaction for the market needs.

2. Supportive physical resources.

Further to the architecture program's sharing of spacious premises in the main building of the prestigious DAU campus in Riyadh, the developed and operated extra new home of CADD has been added to accommodate the increasing number of students enrolled to the program every year. The newly developed building is not just moving to another place within the same complex, but redesigning the whole campus to exploit the ground level location with exterior courtyards and interior freedom of open-plan partitioning to best suit the required environment of architectural education. Being designed and supervised for implementation by CADD's Consultancy Unit of DAU, it represents a designer-occupier project that is conceptually competitive with similar schools worldwide, while adorned with lavish state-of-the-art galleries, labs, furnishings, equipment and all other technological requirements with high quality finishing materials, which makes the educational environment of architecture equally entertaining for males and females in common. After moving to the new home of CADD, all students and faculty are very happy to accommodate such an impressive environment with its special identity.

Fortunately the twin labs of male and female CADD space are all operating at the highest level of educational purposes. The two 3D-digital laboratories of male and female sections are producing models of student works, which enhances the educational process for all design studios. All students have the opportunity to produce their study or final design models according to a registration form of scheduled model production under the supervision of the laboratory technician. The cost of the models is subsidized by DAU for the use of students, which is specified according to the degree of model detailing. The other computer laboratories count four for each of the male and female sections with the total of up to 200 desktops for each section. This huge facility allows the concurrent teaching of digital courses for the architectural program, while affords the opportunity for students to use the advanced programs, such as Revit and 3D-max, for the presentation techniques of their project works up to the final presentation. The design studios themselves afford the students' free accessibility to the internet and audiovisual media using their personal devices. The other laboratories of construction materials, lighting and acoustics, photography and coloring are all equipped with the state-of-the art technology to let students experience the practical application of their relevant technical courses.

Meanwhile, the library of CADD of easy access in the central zone between the male and the female sections has been adorned with all taught textbooks, classics and most recent publications that help the educational process of the architectural program. The collection of books and periodicals of 5000 in number have been selected according to the publisher, author and year of publication similar to any renowned school of architecture worldwide. The DAU administration has given the green light to expedite the growth of CADD library with all funds needed to update the collection on regular basis. Also the CADD library has been assigned a trained staff to organize the contents in digital and catalogue search with a facilitated process of loaning books to students through the purchase of more than one copy of any obtained collection to the library, thus allowing the loan of extra copies apart from the one on the shelves without any conflict in scheduled access between male and female students.

3. Faculty members with variety of backgrounds and schools of thoughts.

The program has intentionally been working for hiring faculty members with respective academic and practical experiences and from different cultural backgrounds and different schools of thoughts. This structure of faculty gives the chance for the students to be exposed to different ways of thinking and solutions and which help in graduating a professional architect that can deal with architecture practicing problems. Faculty members and supporting staff with different cultures and backgrounds are working in extreme harmony between male and female candidates in collaborative academic duties, in a family spirit without any discrimination. The university administration supported the architecture college in hiring more faculty to maintain the ratio between the faculty member and students to be around.

4. Supportive Financial Resources.

The program has a strong financial support by the university and this can be shown in hiring faculty members and staff, enhancing and developing the physical recourses of labs, studios and classrooms and supporting the training programs both inside and outside the kingdom. The profitable organization of DAU, together with the incentive of 50% governmental scholarships for students, make the whole university as one of the high fund-raising academic institutes in the region. Moreover, the world-class sports facilities and the university auditorium represent huge assets that can be used for more fund raising. Meanwhile, the architecture program adopts self-raising fund policy through the foundation of the consultancy unit that can increase extra funds for further CADD development. At present the consultancy unit is working mainly for the university projects. It has designed several projects for the university such as the College of Dentistry, the University Hospital, the new home of CADD, in addition to the university residences for faculty members. The university also supports the faculty members financially to participate in the international and regional conferences and meetings. Many of the faculty members from both male and female sections have attended national and international conferences such as in the Unites States, Italy, England, Canada and other countries in the Middle East through their distinctive research contribution.

5. Coherent administrative structure.

The male and female sections of CADD are interconnected through the coherent administrative structure from top university down to the detailed program levels. The Dean of CADD, Dr. Mansour Aljadeed, is member of the monthly University Council for decision making at the top level. Nevertheless, Prof. Elsayed Amer is the academic consultant to the Chair of the Board of Trustees for CADD. This facilitates the communication about CADD development with the highest administrative level of the university. Also the Advisory Board to CADD is formed from distinguished professionals and academicians in the field and headed by the Dean to foresee the future development of the college and programs according to the market needs. Meanwhile, the pivotal structure of the CADD administration links the university with the program levels through the monthly CADD Council. The council is headed by the Dean with the membership of program Chairs, Vice-deans of Academic Affairs, NAAB Consultant and the Quality coordinator. The essence of this administration

integrates the male and female sections of the CADD programs with discussions achieving social equity and democratic voting on the agenda topics. Comparative administrative structure is formed on the program level with the Council membership of faculty members holding Ph.D. and above. The two specific positions of Chair of the Architectural Program and the Vice-dean of Academic Affairs are assigned Co-members for male and female sections to facilitate and ensure the processing of all duties concerned. Also specialized committees are formed on the college and program levels with representatives among the faculty members to handle the various tasks assigned. Additionally, the administration is following the open door policy to faculty members and students with their founded ARC Student Council. Faculty and students can come to the Dean office at any time to discuss their problems and find solutions at once.

6. Community services.

6-1 Organizing Workshops; Inviting top professionals for sharing experiences;

The program regularly invites distinctive professionals from the Saudi Market and international experts, for short term workshops and forums. Among the most distinctive recent achievements is organizing the event in collaboration of DAU with Prince Sultan University (PSU) to host in King Abdullah Research Center (KARC) in Riyadh the workshop on 'Zaha Hadid' works. In this event, the peers of Zaha Hadid firm were invited to give a series of lectures in KARC and DAU on her firm's works in the Middle East and worldwide from the preliminary sketch-work up to the final execution of projects.

The workshop included the invited team's review of student works in both programs of DAU and PSU with valuable comments for future developments. Faculty members and students of the two collaborated programs attended the workshop, whereas the extended lectures by the same invitees that continued in the DAU campus were open to all students and faculty members of universities found in Riyadh. Further to this event, the program at DAU invites the distinctive professionals of various specializations for the weekly program of public forums and lectures to share their experiences with the students and faculty members.

6-2 Participation in national competitions;

Further to the increasing number of faculty research contribution in international conferences, the students of the program have remarkably contributed to the community services through the participation by their works in various exhibitions and design competitions with winning prizes of national events. The most important of which are the first prize winner for their contribution in the Smart Cities competition, 2016-17 Youth Urban Innovation Workshop in Riyadh, organized by The Arab Urban Development Institute, also the winner in the design competition of the One Day Surgery Hospital in Health Care Facilities by the Saudi Ministry of Health. The students have also participated in two competitions about Heritage that have been organized by the National Center of Heritage. The heritage competitions are strongly supported by His Highness Prince Sultan Ben Salman.

***6-3 Organizing exhibitions*;**

The College has a huge gallery near to the main entrance hall of the university and it is usually used as an exhibition of student works as an interactive space between the architecture program and the other two programs of interior design and graphic design. This gallery is used as the pivotal connection between the community at large and the CADD programs through organizing exhibitions for the society institutions and activities. The friendly environment of DAU and the seasonal exhibitions of CADD facilitate the easy access of citizens to visit the announced openings of the galleries to the public. The international events and specialized workshops are allowed for the public to join and participate effectively with their expertise or specialty in true community interaction and not just closed CADD events. Meanwhile, students and staff of the program are extroverted to the huge concentration of cultural events in the capital city of Riyadh where no event or exhibition is free from the program's representatives with effective participation in discussions and sometimes by student works.

6-4 Consultation services and participating in competitions;

This mutual interaction between the architecture program of CADD and the community is enforced by establishing the consultation unit that offers a wide variety of community services such as real architectural project consultation services, participation in national competitions, research services, and also training programs. Among the program services to the community is the participation in national competitions of the design competition of hotel project in "Samhan" historical site in Alderieyah old town of Riyadh. The program has also participated with the local government in the regeneration of Duheiyra historic area of downtown Riyadh. It was interesting that these two projects were done by the students, under the supervision of faculty members, through the design studios courses. Students were proud that they are serving their Saudi society.

More prominent examples are the assigned huge expansions of DAU campus, which include the new buildings of medical programs and university hospitals, in addition to CADD's new plan. The program has also designed and participated in the preparation of the working drawing documents and the Dean of the college is supervising the implementation of the project. The types and scale of the undertaken projects represent huge capacity of the program in offering community services. The most prestigious among these projects is definitely the new CADD space, where the owner-designer-occupier has given the most advantage of developing the CADD home. It is a home in a sense that students (males and females) prefer to work in the new studios of CADD rather than working back at home. They spent late hours working on their projects in collaborative atmosphere, which encourages the instructors themselves to join during late hours for extra-guidance on their project work development. This has urged DAU to allow females (and males as well) to work during the late evening time after the official working hours of the university under the supervision of scheduled supervisors. This social interaction of occupants reflects the human aspect of designing the new CADD space, which now has a tremendous effect on the performance of students in the architecture program. The community services of this CADD space extends from the local community of CADD

students and staff to the community at large through the twin facilities of auditoriums, galleries, laboratories and open spaces, where the extracurricular activities of workshops, public lectures, galleries, meetings and receptions are taking place with adorned and comfort experience.

6-5 Organizing conferences and meetings;

The program of architecture has organized many conferences and meetings that all can provide a strong and successful evidence of the program participation in the community services. This has been clearly identified in the big international gathering by DAU's hostage in 2013 of the World Heritage Day under the patronage of His Royal Highness Prince Sultan Ibn Salman Al Saud, with the participation of national and international professionals and academicians in the field of architectural and urban heritage. This world-class event resulted in several MoUs, especially with the Saudi Commission for Tourism and Antiquities (SCTA) that offered regular training programs to both male and female students of the architecture program of DAU, in addition to the students' collaboration with SCTA in the wide range of national projects for architectural preservation.

The key factor for the fast growing ties of the architecture program with the community is the physical, financial, human resources and administration of DAU who pay every effort to establish the collection of academic programs on the international level. This is made possible through the strategic auditorium of DAU that can host large scale events on the international level with state-of-the-art audio-visual facilities and comfort at the main entrance of the university campus with drop-off circulation in the central zone between male and female sections, thus forming a major community node for both DAU and the city of Riyadh as well.

The program has also organized many workshops for architectural students. Students were invited from all the architectural programs in the Kingdom to attend the workshops, among which was the distinctive renovation of the Al Deriah, the old district of Riyadh City. This workshop was run under the supervision of, Rasem Badran, one of the famous architects in the Middle East. Meanwhile, professional practitioners participate to teach in the program and attend the juries, in addition to scheduled program of workshops that are organized for all students from all architectural programs in the kingdom.

7. Connections with national and international institutions.

The architecture program keeps strong ties with various national institutes such as The Saudi Commission for Tourism and Antiquities (SCTA), The Saudi Omran (urbanism) Society and The Saudi Council of Engineers, with extended regional ties such as the MoU with the Middle Eastern Club for Photographers. More connections on the international level include the MoU with the Politecnico di Milano University, in addition to the establishment of exchange programs with various institutes in the UK and Italy that are in progress. Also the program invites professors and faculty members from different universities to teach in the program as part-time and visiting professors. The invited professors from different national universities share their expertise to evaluate the program of architecture and participate in its development.

Meanwhile, professional practitioners are invited from the Saudi market to participate in teaching design courses and attend the juries. Also distinctive faculty members of the program are external jurors of other programs in the Kingdom, especially King Saud University, King Faisal University and Prince Sultan University in Riyadh.

8. Participating in Conferences and Meetings.

The program of architecture encourages both students and staff to attend international conferences, besides the frequent events on the national level. Examples are the participation in the 2017 First Saudi Smart Cities Conference by the Saudi Ministry of Municipal and Rural Affairs, where female students of the program participated by their graduation projects in the competition for young Saudi designers, attending the “Saudi Green Building Forum” since 2014, participating in the National Built Heritage event held in Dammam in 2012, and in Madinah in 2013. Meanwhile, the architecture program organizes a series of public lectures in DAU on various topics such as sustainable architecture by invited professionals, and held workshops such as the regeneration of historical ‘Duheiyra’ area in downtown Riyadh with open registration of architecture students from outside DAU. Among all events, the hostage of DAU in 2013 for the "World Heritage Day" anniversary for the first time in the Kingdom represents the essence of the program’s international organization and participation activities. In terms of extracurricular activities, representative student from the architectural program of CADD in 2015 has won the first prize of Best Speaker in the Inter-Universities Students Debate held in Riyadh for the Debate topic: "Metro Riyadh, is society ready?", which reflects the intellectual development of female education in the architecture program of DAU.

9. Training programs.

The program of Architecture organizes and participates in training courses for the male and female students at both national and international levels. Meanwhile, the program requires each student to do summer training program for 60-days before graduating from the program. The students are required to conduct their training in the public and private agencies that work in the building process. These agencies evaluate the student’s work in a report to be submitted to the architectural program by the end of the training. Also, the students should submit a report to their faculty who will evaluate the training course.

On the international level the program has organized a training program where 20 students went to the Welsh School of Architecture which organized the third international Low Carbon Architecture Summer Program (LCASP) in Cardiff, Wales, UK from 25th July until 8th August 2015. The program includes low-carbon architecture projects and workshops; field visits to remarkable sustainable venues in Wales and England, architects and practitioners’ lectures, in addition to leisure excursions. This gathering in addition to others in Berlin, Morocco and Uzbekistan had given excellent opportunities to our students to get exposed to the international experiences, both academically and practically.

1.1.7.11.2. Program’s Weaknesses:

Although developing fast, the short time span of the architecture program is behind some weaknesses of the program such as:

1. Lack of collaborative research activities between the faculty members.

2. A continuous market study survey is needed to identify the changing professional needs.

3. More qualified supporting staff, research assistants and lab technicians are needed to keep the progress of the program.

4. Limited academic agreements with regional and international universities.

1.1.7.11.3. Future challenges:

Maintaining the so far achievements of the newly delivered architecture program of DAU since only 2009 is a great challenge on its own. The major challenges are summarized as follows:

1. More studies on market demands are required for future adaptation of the program.

2. Initiating postgraduate studies would further broaden the program's structure.

3. Attracting more recruitment of internationally qualified academic staff to meet the increase in the number of students at both male and female sections, in addition to the expected activation of the Masters program in the architectural heritage by the next academic year of 2018-2019.

4. Encouraging more academic staff for quality contribution of research work and professional practicing on the international level.

5. Encouraging and developing more participation in community services.

6. Striking more agreements and exchange programs with internationally recognized institutes.

7. Obtaining the Substantial Equivalency of NAAB.

8- Obtaining the accreditation of the NCAAA, the National Commission for Academic Assessment and Accreditation

9. Maintain the ratio between faculty and students at 1:10 to keep up the educational quality in the program.

Section II: Resources

1.2.1. Human Resources:

The human resource of CADD covers the various aspects of the program that includes academic teaching staff of all ranks, supportive technical staff of laboratories and the administrative jobs. The human resources of the architecture

program are counted proportional in qualitative and quantitative balance to the students enrolled in each course of the program, with the average of 20 students per class and 10 students per design studio. The program comprises the academic staff of full, associate and assistant professors, in addition to lecturers and teaching assistances, which sustains the full range of academic ranks with their distributed combinations in course and studio participation whenever appropriate. The program is committed to recruiting world-class academic faculty of all ranks and from different educational and cultural backgrounds, thus achieving the maximum efficiency in the educational environment and the optimal performance criteria of students. The most recent human resource development of the program includes the following positions and specializations to promote the academic performance:

- Appointing a new Dean for CADD, Associate Professor, Dr. Mansour Al AJdeed, the former Chair of the Architectural Department in King Saud University (KSU), whom during his term the program of KSU obtained the NAAB Substantial Equivalency.
- Appointing academic consultant to CADD, Professor Dr. El Sayed Amer, who is a NAAB expert with long established career of obtaining the NAAB Substantial Equivalency during both his former position as Chair of the Architectural Program in Kuwait University, and also the NAAB principal of King Saud University.
- Appointing Associate Professor, Dr. Yasser Fouda, specialized in the field of landscape design.
- Appointing Assistant Professor, Dr. Adbulaziz Mahdi Abu Suliman, specialized in urban design (former Chair of the Architectural Program in KSU and Dean of CADD).
- Appointing Assistant Professor, Dr. Hasan Kari, specialized in urban design.
- Appointing Assistant Professor, Dr. Ibrahim Al Jutaily, specialized in urban planning.
- Appointing the Teaching Assistant, Arch. Adbelmohsen Al Subaiei, with US experience in digital modeling and now responsible for the digital modeling lab in the DAU program.
- Appointing laboratory technicians for the various labs in the new CADD space.
- Appointing lecturer, Ms. Ruba Saleh, in the female section with 15-years of architectural experience in the academic and practical fields.
- Appointing, Professor Dr. Quimsan Chio, US citizen with long academic experience and specialized in the field of lighting and acoustics for the female section.
- Appointing Assistant Professor, Dr. Donia AbdelGawaad, specialized in architectural design for the female section.

The College requirements of the architecture study plan interacts with the other Interior Design (IDE) and Graphic Design programs (GDE) of CADD, where the program of architecture can be figured out from both perspectives of college and program viewpoints. From the College stance, basic design and digital media are shared among the three programs with the collaboration of the architectural academic staff of total 32-members among the total 57-members of all three

departments of CADD at present. This crucial start of mixed college requirements further broadens the creative learning outcomes of cognitive, interpersonal, knowledge and digital skills of students through the specialized background of academic instructors who come from different schools of thoughts in addition to the combination of different specialties among the three departments with optimized student performance criteria in an interactive learning environment.

Statistics of human resources for both male and female sections of the architecture program determine the average number of credits per faculty member for the registration of students in the academic year 2016-17 by course (Table 2). The average is well below the 12-students capacity for the design studios and 15-student for the other theory courses. Another observation is the more allotted students for the college requirement courses than the core architecture courses due to pooling the students of the three departments all together in college courses. Collaborative human resources of the three CADD departments at the college requirement level to meet the higher demand of student allotment effectively meet this. Meanwhile, the adjunct staff members are assigned special electives with a range of design and theory courses at the various the study plan levels (Table 3). The teaching load of faculty members is made homogenous with average 7.6 credits per fulltime faculty compared to 5.8 credits for the adjunct faculty staff at present.

The higher teaching loads are found among the teaching assistant staff, while the lowest loads concern the full professor rank. This load difference in credits is common among international practice of academic institutes due to the commitments of higher rank academic staff for works of specialized experiences such as time allocated to research and professional practice. Between these two extremes of fresh graduates engaged in teaching assistances and long experienced professors are found the range of lecturers, assistant and associate professors who integrate in the wide scopes of academic activities at all levels of the program. Meanwhile, the adjunct teaching load is filtered through the maximum limit of not more than 6-credits per faculty. This affords the manipulation of special expertise for distinctive employment opportunities found in specialized areas of the program, with diversified rather than focused encounters by more experts in various fields instead of few in limited scope.

Overview of the human resource statistics for the architecture program designates students to faculty ratio of 13.75%, for the whole courses, which is still within the average of academic standards when seen from the larger perspective of academic advising, extracurricular activities, professional training, in addition the academic course instructing. Further breakdown of the academic staff indicates a high percentage of teaching assistance and lecturers whom hold most of smooth interlinks between the faculty staff and students in all matters of the program. Distinguishably, the full range of professors, associates and assistances of male and female sections represent high percentages, which verifies a human resource of specialty programming towards professional student learning outcomes and not just try-and-error experimenting, especially for the unique architectural education of females in Saudi. Moreover, the ratio of 32% of human resource is adjunct staff of selective professors and professional experts in architectural education and

practice, which optimizes the quality assurance of the program on international standards while keeping the program stability of major fulltime structure (Table 4).

Table 2. Average Number of Credits per Faculty Member for the Architecture Program in the Academic Year 2016 – 17

Course Code	Enrolled Students	Credits	Sections	Aggregate Credits
DES 101	29	3	2	6
DES 102	21	3	3	9
DES 103	30	2	2	4
DES 111	17	4	2	8
DES 112	42	2	3	6
DES 113	34	3	3	9
MATH 101	45	4	3	12
PHY 101	25	3	2	6
ARC 201	17	3	2	6
ARC 202	40	3	3	9
ARC 211	40	3	3	9
ARC 212	46	3	3	9
ARC 213	40	3	2	6
ARC 214	43	2	2	4
ARC 215	31	2	2	4
ARC 216	46	3	2	6
ARC 301	35	4	3	12
ARC 302	18	3	1	3
ARC 303	42	3	3	9
ARC 304	42	3	3	9
ARC 305	21	3	1	3
ARC 306	18	3	1	3
ARC 311	49	4	3	12
ARC 312	30	3	1	3
ARC 313	9	3	1	3
ARC 314	30	2	2	4
ARC 315	38	2	3	6
ARC 316	28	3	2	6
ARC 401	38	5	3	15
ARC 402	66	3	4	12
ARC 403	45	3	3	9
ARC 404	49	2	2	4

ARC 406	32	3	2	6
ARC 407	30	3	2	6
ARC 411	30	5	3	15
ARC 412	35	3	3	9
ARC 413	20	2	1	2
ARC 414	27	3	2	6
ARC 415	29	2	2	4
ARC 417	30	2	2	4
ARC 418	20	3	2	6
ARC 501	28	5	3	15
ARC 502	28	3	3	9
ARC 511	17	6	2	12
ARC 512	8	2	1	2
Total	**1438**	**137**	**103**	**322**
Average Num. of Credits per Each of the Total Faculty				**7.6**

Table 3. Average Number of Credits per Adjunct Faculty Member for the Architecture Program in the Academic Year 2016 - 17

Course Code	Enrolled Students	Credits	Sections	Aggregate Credits
ARC 511	12	6	1	6
ARC 418 (Elec.)	12	3	1	3
ARC 314	15	2	1	2
ARC 511	12	6	1	6
ARC 407 (Elec.)	15	3	1	3
ARC 305	20	3	1	3
ARC 417	22	2	1	2
ARC 306	20	3	1	3
ARC 302	18	3	1	3
ARC 313	9	3	1	3
ARC 501	9	5	1	5
ARC 311	12	4	1	4
ARC 402	17	3	1	3
MATH 101	45	4	3	12
Total	**238**	**50**	**16**	**58**
Average Num. of Credits per Each of the 10-Faculty				**5.8**

Table 4. Statistical Ratios among Instructors and Students for the Architecture Program in the Academic Year 2016 - 17

Criteria	Faculty	Students / Faculty	Percent
Instructors to Students	32	440	13.75%
Lecturers & TAs to Faculty staff	19	32	61%
Assis. Prof. to Faculty staff	7	32	22.6%
Assoc. Prof. to Faculty staff	5	32	15.6%
Professors to Faculty staff	2	32	6.25%
Adjunct to Fulltime Instructors	10	32	32%

1.2.2. Human Resources Development:

Since its foundation in 2009, the human resources of the architecture program in DAU has been undertaking continuous development. Recent delivery of the program, although disadvantaged by limited experiences, is privileged by building up state-of-the-art resources including the human one. This is reflected on the extended list of academic staff with all ranks shared between the three college departments in unified community of both genders (Tables 5-7). Apart from the qualified faculty recruitment, the human resource extends in scope to include administrators and the students themselves as one community of educational environment in accordance with the university's vision, mission and values, which is verified through the steady increase of student enrollment (Table 8). In this respect, the architecture program promotes several activities to develop skills of academic staff as well as students such as:

- Hosting regular exhibitions in DAU for the three departments of architecture, interior design and graphic design, where the students of architecture from both male and female sections can interact through their studio design projects in competitive demonstration of professional skills under the supervision of academic staff, and in open atmosphere of public presence.
- Organizing training courses to faculty members to develop their educational skills in teaching methods.
- Organizing lectures to the faculty members in course evaluation and assessment and grading systems.
- Participating in exhibitions outside DAU with the student works, which affords the opportunity for students to express themselves with their works in public.
- Encouragement of Academic staff as well as students to participate in academic conferences with contributions whenever possible.
- Attracting world class cultural events to take place in DAU where the prestigious university auditorium keeps welcoming selective events on national and international levels with social benefits for both the university's community and the public participation.

- Striking MoUs with professional institutes of public or private enterprises, which have mutual benefits of exchange and training programs as appropriate.
- Holding regular meetings between the university administrators and the academic staff as well as students to explore issues of concern to the program's development with strategies of their fulfillment.
- Inviting distinguished professionals for workshops and public lecturing in DAU with faculty participation and discussions.
- Conducting training programs for students in real world experiences, especially with The Saudi Commission for Tourism and Antiquity (SCTA).
- Establishing Architectural Consultation Unit of particular interest in developing the human resource of the architecture program, where students together with the faculty members practice the architectural profession in real services to the community with the participation in design competitions and also conducting professional training programs in DAU.

Beyond the intrinsic development of the program, the university administration is represented by Quality Unit that takes responsible for drawing strategies of the university's plans of development with the human resource in process. The Quality Unit scope of work includes the regular reporting on the self-assessment of integrated university performance with special regard to the following criteria:

1. Mission and objectives
2. Governance and administration
3. Management of quality assurance and improvement
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. Institutional relationship with the community
12. Recommendations

According to the Quality self-assessment processes, the recommendations translate into strategic and action plans for improvement and sustainability, which is centered on the human resource development for all parties of administrative, faculty and student concerns. Meanwhile, the strategic planning of the Quality Unit works in connection with the sub quality unit for each college including CADD, with college representatives in each steering committee of the quality administration, thus managing the quality from top university level down to the college and program levels. The same quality office organizes regular workshops to train the academic

staff on the national conditions of accreditation, in addition to the LMS usage for effective course delivery and teaching strategies with the process of developing the comprehensive 'course file' document for national accreditation.

Table 5. CADD Fulltime Academic Staff with Current Teaching Load

#	Name	Title	Gender	Dept.	Load (CR)
1	Mansour Aljadeed	Associate Professor - Dean	M	CADD Dean	-
2	Sultan Alotaibi	Assis. Professor – Vice Dean & Chair of Arch Male Sec.	M	ARCH	4
3	Anna Laura Petrucci	Assoc. Prof. – Arch Prog. Chair	F	ARCH	6
4	Gamal Elkhouly	Professor	M	ARCH	12
5	Ma'ad Aldelamy	Professor	M	ARCH	14.5
6	Mustafa Ramadan	Associate Professor	M	ARCH	13
7	Yasser Fouda	Associate Professor	M	ARCH	14
8	Ali El Shazly	Associate Professor	M	ARCH	14
9	Dina Nafadi	Assoc. Prof. - GDE Prog. Chair	F	GDE	6
10	Abdulaziz Mahdi Abu Suliman	Assistant Professor	M	ARCH	12
11	Assil Abu Diab	Assistant Professor	F	ARCH	14.5
12	Hind Othman	Assistant Professor	F	ARCH	14
13	Inas Rasheed	Assistant Professor	F	GDE	11
14	Rehab Hassan	Assistant Professor	F	GDE	11
15	Ignacio Palama Carazo	Assistant Professor	M	ARCH	15
16	Hassan Qari	Assistant Professor	M	ARCH	12
17	Ibrahin Aljutaily	Assistant Professor	M	ARCH	12
18	Ahmad Alrwaished	Assistant Professor	M	ARCH	13
19	Donia Abdulgawad	Assistant Professor	F	ARCH	14
20	Mohamed Alqahtani	Lecturer	M	ARCH	10
21	Majed Al Abd	Lecturer	M	ARCH	14
22	Jibran Zaffar	Lecturer	M	ARCH	14
23	Anas Hussian	Lecturer	M	ARCH	9.5
24	Dima Afisa	Lecturer	F	ARCH	13.5
25	Noha Qassab	Lecturer	F	ARCH	12
26	Noor Tayeh	Lecturer	F	ARCH	17

27	Ruba Salah	Lecturer	F	ARCH	9
28	Joanna Feidi	Lecturer – IDE Program Chair	F	ID	7
29	Arwa Elsayed	Lecturer	F	ID	-
30	Hina Wasif	Lecturer	F	ID	15.5
31	Ola Mustafa	Lecturer	F	ID	14
32	Ashwag Al Sherif	Lecturer	F	GDE	15
33	Hiba Zahran	Lecturer	F	GDE	14
34	Lamiaa El-Feky	Lecturer	F	GDE	15
35	Maya Al Tayyar	Lecturer	F	GDE	15.5

Table 6. CADD Teaching Assistant Staff with Current Teaching Load

#	Name	Title	Gender	Dept.	Load (CR)
1	Ghayyath Alshawa	Teaching Assistant	M	ARCH	17
2	Mohannad Alqhtani	Teaching Assistant	M	ARCH	12
3	Mohannad Bawadekji	Teaching Assistant	M	ARCH	15
4	Saad Al Otaibi	Teaching Assistant	M	ARCH	13
5	Abdulmohsen Al Subaie	Teaching Assistant	M	ARCH	9
6	Barera Iqbal	Teaching Assistant	F	ARCH	2
7	Basma AlSudairi	Teaching Assistant	F	ARCH	16
8	Lilas Mansour	Teaching Assistant	F	ARCH	15
9	Marwah Bashattah	Teaching Assistant	F	ARCH	11
10	Najla AlAbbad	Teaching Assistant	F	ARCH	14
11	Bayan Arnous	Teaching Assistant	F	IDE	-
12	Bedour Al Swayeh	Teaching Assistant	F	IDE	-
13	Dalia AlAkki	Teaching Assistant	F	IDE	-
14	Farheen Khan	Teaching Assistant	F	IDE	-
15	Reham AlAwwad	Teaching Assistant	F	IDE	-
16	Shaikhah AlRashed	Teaching Assistant	F	IDE	-
17	AlHanouf Ba Hamam	Teaching Assistant	F	GDE	-
18	Almasah Raihan	Teaching Assistant	F	GDE	-
19	Delayel Bander	Teaching Assistant	F	GDE	-
20	Hajer AlGhamdi	Teaching Assistant	F	GDE	-
21	Mariola Fernandez	Teaching Assistant	F	GDE	-
22	Sana Maan Merhi	Teaching Assistant	F	GDE	-

Table 7. ARCH Program Adjunct Academic Staff with Current Teaching Load

(invited Professors from King Saud University, the oldest and biggest university in the region " NAAB Substantial Equivalent Program")

#	Name	Title	Gender	Dept.	Load (CR)
1	El Sayed Amer	Professor – NAAB Consultant	M	ARCH	9
2	Faisal Agabany	Associate Professor	M	ARCH	2
3	Shabbab Alhammad	Associate Professor	M	ARCH	8
4	Osama Algohary	Assistant Professor	M	ARCH	3
5	Ibrahim Alsaudi	Assistant Professor	M	ARCH	6
6	Ahmad Toman	Assistant Professor	M	ARCH	6
7	Haroun Alzureiky	Assistant Professor	M	ARCH	4
8	Amany Mansour	Assistant Professor	F	ARCH	8
9	Abdulaziz Annaim	Teaching assistant	M	ARCH	5
10	Mohamad Alshiekh Neim	Teaching assistant	M	ARCH	3

Table 8. Chronology of Student Enrollment in CADD

Academic Year (1^{st}/2^{nd} Sem.)	Architecture		Interior Design (Fem. Sec.)	Graphic Design (Fem. Sec.)	Total
	Male Sec.	Female Sec.			
2009-10	16/27	14/18	26/42	23/26	113
2010-11	54/63	44/53	82/83	52/71	270
2011-12	106/120	62/72	121/129	94/94	415
2012-13	171/183	82/86	147/139	110/120	528
2013-14	243/278	110/122	152/147	121/129	676
2014-15	336/335	148/131	194/180	143/133	821/779
2015-16	339/316	133/132	202/176	133/125	807/749
2016-17	335/323	125/117	185/183	119/121	764/744

1.2.3. Physical Resources:

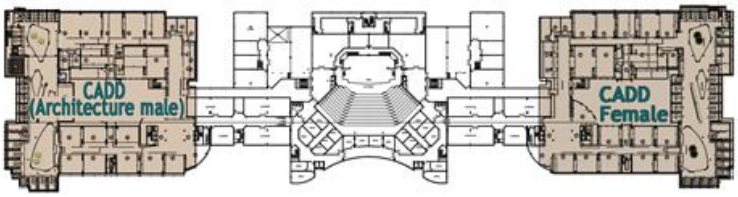
The architecture program is fortunate by executing the new place of CADD on the highest physical standards and facilities. Further to the original physical resources, which were included in the Institutional Overview (IO) of NAAB visit-I, and the APR of The NAAB Visit II, the operation of the finished plan occupies the lower floor of DAU footprint with its two wings of male and female sections. Abundant spaces of the new plan accommodate all necessary requirements for CADD's existing and the future expansion of human and physical resources as well. The operated plan has been fully furnished and personalized for all occupiers in the dual male and female sections. The spatial program of the plan includes design studios, laboratories, galleries, auditoriums, libraries, offices, meeting rooms and others (Table 9 & Figure

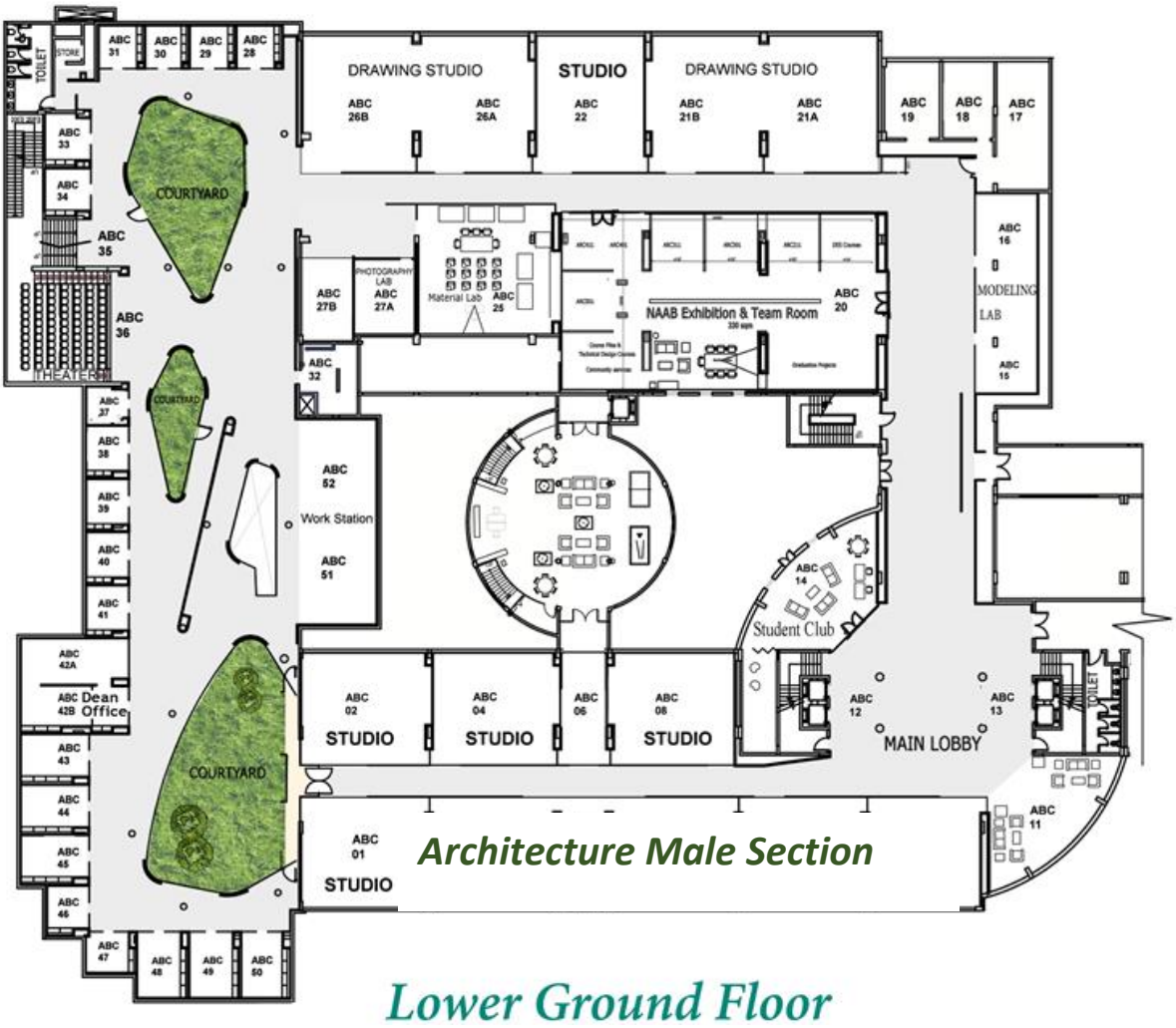
3). Creative design exploits the open spaces of the bottom floor as open courtyards in integration to the spatial organization of the college, thus achieving human and environmental livability with universal spaces of unobstructed functional flow, in addition to the glazed transparency throughout all CADD spaces.

Among the most important labs of CADD are the dual digital labs of 3D modeling for male and female sections, where many of the current student works have been studied and presented using this precious modeling facility. Also the fully equipped state-of-the-art computer labs of both sections absorb the full capacity of digital courses with the most recent software such as the Revit program. Meanwhile, the material lab in each section exhibits the recent and mostly used building materials in the market, which integrates the practical demonstration with the theoretical fields of construction courses. Besides, the CADD's private auditorium accommodates all of the extracurricular events for students and faculty members such as the weekly public lectures, training programs, general meetings with students and so on. The students of CADD have their own environment of the male/female student club with representatives to communicate with the CADD administration. The plan extends outside the building foot-print to include leisure areas of tennis-table, snack-bars with seating areas, hard plazas and green spaces, which all add to CADD's human space.

Table 9. Brief Space Program of the New CADD Plan

Description of use	Quantity	Area (sq.m.)
Design Studios	26	2210
Faculty and Staff Offices	60	2600
Meeting Rooms	4	80
Laboratories	6	320
Workshop/ Material Shop and Storage	2	360
Galleries	2	360
ARC Libraries	2	180
Consultation Unit Spaces	2	1300
Auditoriums (48 seats each)	2	180
Courtyards	2	480





The essence of design studios are clustered with interactive transparency among the architecture, interior and graphic design of the female section and the exclusive architecture of the male section. All of the studios are extendable and fully equipped with audiovisual facilities and internet connectivity, with spacious area per student and private lockers with small library shelves, in addition to relaxing exterior zones. This affordable environment optimizes the human factor of the Studio Culture policy. Meanwhile, the faculty members are closely linked to the studios with private office per faculty and all necessary equipment and IT facilities. The CADD administration integrates with the office zone to form one community of open-door policy among the faculty members and the students as well. Meanwhile, the NABB Exhibition and Team

Room integrates inside the CADD space to become a permanent gallery with updating of students' project works, course files and other community services. Nevertheless, the largest meeting room adjoins the Dean's office where all of the discussions and management of internal matters take place on daily basis. The easy access and connectivity of the whole CADD space affords the human special needs with the technical systems of safety measures and environmental control.

1.2.4. Financial Resources:

In support of the mission of the University, services of Financial Resources play an important role in ensuring the institution's financial capacity and viability. The financial department of the university works to increase and better-manage the financial resources for meeting DAU's objectives in supporting all needs of the colleges and academic programs, which would create the optimum academic environment for student performance. The strong university support to CADD is evident by the new plan being exclusively executed for the college with state-of-the-art equipping and furnishing according to the highest international standards. All studios, labs, galleries and auditoriums are supported with the most advanced technical facilities. The university also supports the college including the architecture program by recruiting qualified faculty members from different cultural backgrounds and different schools of thoughts to keep the ratio between faculty and students within the accepted international ratios.

This collaborative effort aims to meet all stewardship and strategic planning responsibilities by focusing on core accounting, financial policy development and enforcement, and financial risk management. Each of the services ensures the planning and sound management of financial resources for the whole University through:

a. Offering financial management services in an efficient manner (specialized services in financial analysis and advice);
b. Supporting pro-actively senior managers at the University, faculty and service levels, by providing adequate, specific and timely financial information to assist in the decision-making process;
c. Using effective methods and systems for collecting, retrieving and releasing financial information.

The university income depends mainly on the following resources;

a. The Ministry of Higher Education supports 50% of the registered students within the scholarship program Students under Scholarship Program.
b. The fees paid by Students themselves.

In addition to above resources, the university is trying to raise self-funds by exploiting the physical recourses and facilities, but in the meantime keeping and maintaining the privacy of the students, using the intelligent design of the university complex which help to achieve this intention. The physical recourses, which can be used, for self-raining funds are:

a. The university auditorium

b. The university gymnasium, swimming pools and sports halls

Currently in CADD, there are 440 students in the architecture program. Income coming straight from their average registered credits per semester is about (440 *17

Credits *2450SR = 18,326,000 SR.) The Financial Department of DAU produces regular reports on financial details with the salaries of recruited faculty members (supplementary 4.7).

1.2.5. Information Resources:

The fast growing library of CADD has targeted the increase of the number of books and periodicals from few hundreds since 2009 to more than 5000 in 2017. This increase has been correlated with the gradual opening of new courses until the graduation of the first batch sine spring 2014. The increase of the library's collection in CADD is a continuous process with feedback from course instructors on the recommended list of books to be added. Meanwhile, the development of E-library is getting more potential for initiation with full access to CADD information including books and membership of specialized journals. The starting of the post graduate studies of the architecture program in the next academic year 2017-2018 certainly would boost the development of CADD library by distinctive collection on the level of graduate studies and to be more selective in terms of author, publisher, year published and professional reviewer comments.

The IT development of CADD is upgrading the existing website over the DAU portal through a new IT contracting for state-of-the-art technological web presence with some of the dynamic and interactive features made available. The main focus is to get productivity from the web presence, provide up-to-date information to CADD members with excellent graphical structure and user-friendly navigation. A well-structured website is built for the visitor to save spending time in browsing, searching, sending information, giving their feedback. The user-friendly system in conjunction with advanced features for targeted audience would facilitate the smooth flow of information for the visitors to scroll news/events with calendar. Overview of basic navigation includes home items such as academics, student life, alumni and admissions with online application, inquiry and career jobs. The new CADD website integrates with the existing site of DAU for the systems of Learning Management (LMS), Student Information (SIS), Human Resource Management (HMS), Financial Management (FMS), in addition to two major electronic facilities of Library Information System (LIS) and Document Management System (DMS). The former accesses the digital services of CADD library that is expanding in the number of volumes and membership of academic websites with special emphasis on the research facilities and loaning information. The latter of intranet service handles all the documentation processes over the web with controlled login access according to the type and nature of each document.

Further to the two main information resources of CADD library and IT facilities, more laboratories, workshops, studios, auditoriums and offices of green human spaces have been implemented in the new CADD physical resources, which are equipped with the latest electronic devices of hard and software installations for audiovisual and electronic communication facilities, thus enriching the information resources of the architecture program on the highest international standards. Specifically, the computer labs of the new CADD spaces are designed to accommodate the special qualitative and quantitative requirements of the digital design in the college. This includes the widest scope of digital applications and smart learning, which enrich not only the skills of computer drafting but also the computer applications for a wide

range of technical and theoretical learning outcomes of the interactive study plans among architecture, interior and digital design, thus enjoying a friendly user environment of architectural education.

1.2.6. Administrative Structure:

The architecture program represents an independent structure of decision making yet belongs to the hierarchal structure of college and university framework (Figures 4 & 5). In this process, the Department Council passes the agenda of divided topics into department affairs and student cases for discussions during the regular meetings twice a month. Recommendations are taken according to the voting majority in the attendance of at least two-third of the Council members of Ph.D. holders. In case of any dispute, the topic is referred to the Dean for further investigation at the College Council level. Any recommendation of the ARCH Council would be processed according to the university rules and regulations, and after the Dean's approval. The decisions granted only to the University Council such as student request of dismissal removal would follow the forward hierarchy of Department – College – University reporting with feedback for implementation. Specific student cases such as block removal or grade objection requests have to be supported by official documents to verify the case otherwise rejected. The Council may require the concerned instructor or supervisor to submit formal report on any inquiry of student cases. Again in case of disagreement, a special committee as appropriate to the topic is set to review the case with justified recommendation for the Council's final decision.

Parallel to the Department Council, faculty members are assigned to committees of;

- Committee of Reviewing and Development of Academic Plan
- Committee of Student Affairs
- Committee of Physical Resources
- Other Committees

The committees are nominated by the ARCH Council for handling the wide range of topics of concern to the program's academic process with recommendations reported monthly to the Council for enforcement. For example, the Committee of Student Affairs conduct initial review of student cases to be further processed through the Department Council, and works closely with the Student Council to convey their requests or opinions for appropriate actions. Extended Course Committees nominate the faculty members by specialty to investigate thematic courses of the program in peer review with the course coordinator and instructor, thus ensuring the achievement of NAAB's student performance criteria in each course according to rubrics of assessing the domains of learning outcomes, in addition to the verification of appropriate course material such as lecturing notes, textbooks, assignments and the ongoing improvement plans.

Higher level academic committees are formed on the College level, which concern the three departments of CADD in common. Each of the CADD committees includes nominees representing the three college departments and headed by senior faculty

member. Of major concern to the architecture program is the Committee of Program Development which includes; The Dean (Head of the Committee), Vice-

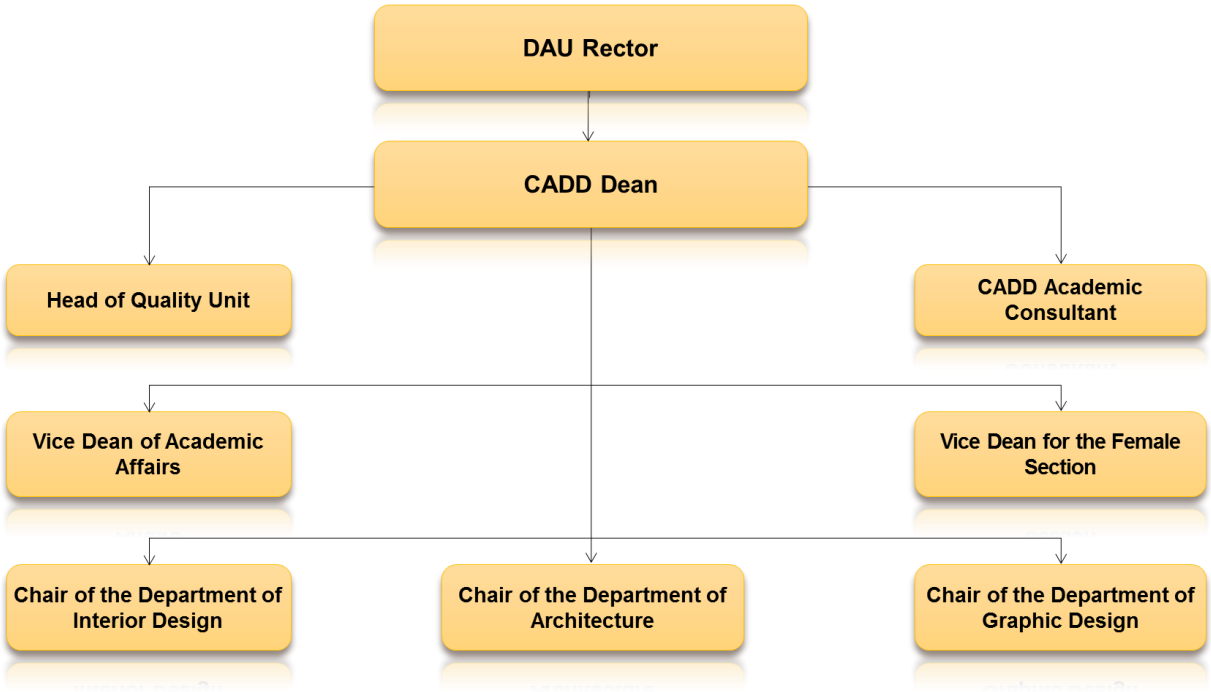


Figure 4. Organizational Structure of CADD

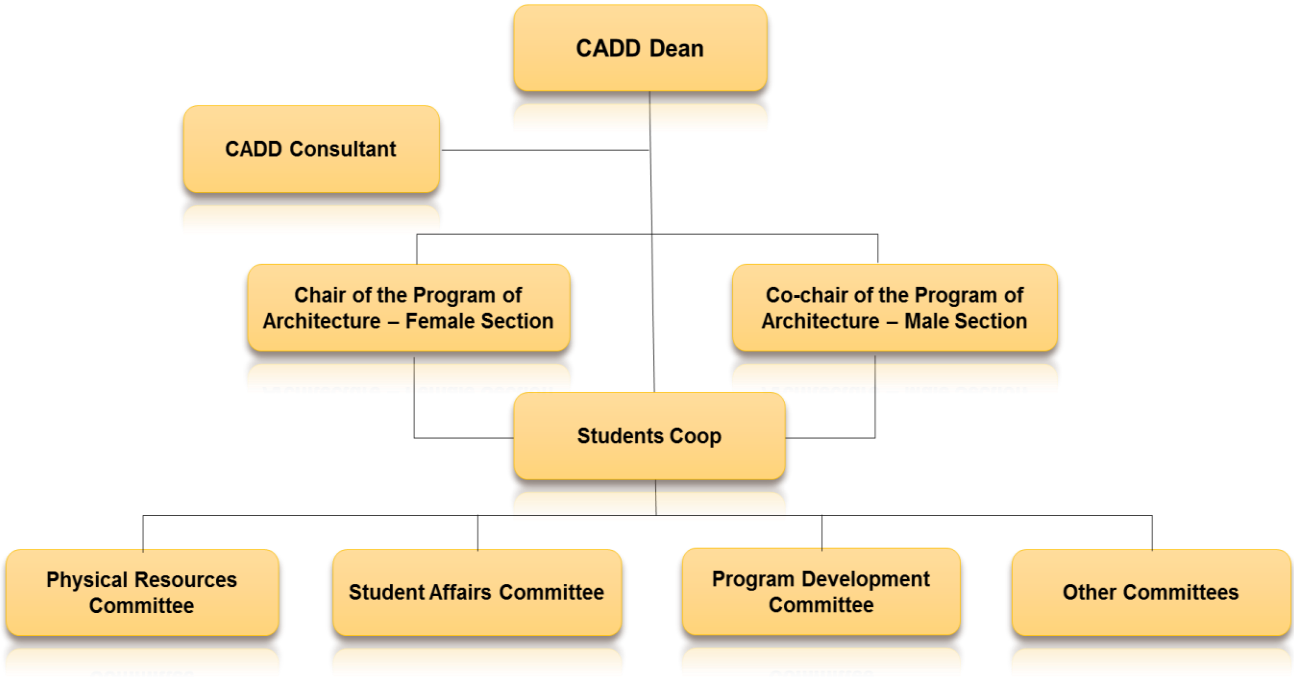


Figure 5. Organizational Structure of the ARCH Program

Dean, Senior International Consultant whom also is NAAB expert, the three Department Chairs, and a secretary to write the minutes of regular weekly meetings. Obviously the assigned members to the committee reflects the policy making towards the college programs, with major emphasis on the architecture program for both NAAB substantial equivalency and national NCAAA accreditation in progress. Due to the extended tasks of the committee, two other committees of NAAB and NCAAA have been formed to work in more details. Among the activities of these committees are the program benchmarking for self-assessment and development, follow-up on the development plans of each department, preparing the action plans for accreditation, conducting workshops to the faculty members on NAAB criteria and procedures, meeting with male and female students to introduce the importance and requirements for NAAB substantial equivalency accreditation, meeting with the University executives for the same accreditation purposes, and conducting all correspondence of CADD with the international and national communications for the programs development and accreditation.

The activities of the program development committee extend to opening new programs of CADD such as the Masters program in Architectural Heritage that is under revision and planned for next academic year 2017-18, and the Architecture Engineering (AE) program in parallel to the current ARCH program that has been approved by the University Board of Trustees and forwarded to the Ministry of Higher Education for final approval and commencement in the next academic year (program of physical space included in the new CADD plan), and monitoring the student performance criteria in connection with all the faculty members of the college. Recently, the NAAB committee has been engaged in developing the study plan of the architecture program. The architecture study plan has been updated with more credits of elective pooling, while reducing or moving to the elective pool any unnecessary credits at the core program level, thus ending up in more efficient plan. Meanwhile, the three study plans of architecture interior design and graphic design are viewed in parallel to have shared university requirements with basic design courses of college requirements at the early stage of study plans for students' optimal freedom of choice in the latter tracking of major core program.

Parallel to the program development committee, other CADD committees cover a wide range of College responsibilities and activities such as cultural, academic, social and sports events to develop the student personality in pedagogical manner. The Committee of Academic Advising designates each enrolled male or female student to an academic advisor who takes the full responsibility of following up on the student's achievement in the study plan with the proper registration in each semester, in addition to offering the advice and attempt resolving any student matter of social or personal nature. Moreover, the Committee of Extracurricular Activities has crucial role in the intellectual development of students in all college programs to share knowledge and experience of a wide range of activities such as public lectures of thematic topics by invited professionals and professors, participating in national and international events of academic conferences and workshops, contributing to

public galleries by student works and conducting field trips for educational and recreational activities.

Section III: Institutional Characteristics

1.3.1. Statistical Reports

Further to the statistical reports on Faculty and student enrollment characterisitcs stated above in the Human Resources of Section II, the program student charateristics has set the criteria of total student admission to the program, transferring students from other programs internal or external of DAU to CADD, native students, foreign students, number of governmental sholarships for nationals, non-registered students for some reason per academic year, and the number of student graduation (Table 10). These criteria have been detailed since the beginning of the program in the academic year 2009-10 to the present. The general overview of the specified figures highlights the correlation of the increased male and female governmnetal scholars to the total number of admissions into the

Table 10: Program Student Characteristics:

Academic Year	DAU total admission to ARC		Transferring Students from other programs to ARC - DAU		Native Students		Foreign Students		Scholarships		Non registered students		Total Graduated students		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total (%)
2009-10	38	21	6	10	22	21	16	0	0	0	6	5	0	0	0
2010-11	57	27	6	14	41	25	16	2	5	11	9	3	0	0	0
2011-12	84	25	13	16	60	22	24	3	7	5	10	3	0	0	0
2012-13	112	20	8	6	86	17	26	3	15	2	25	2	0	0	0
2013-14	134	42	15	13	112	35	22	7	44	12	28	6	5	5	10 (17%)
2014-15	152	49	19	9	129	40	23	9	23	4	43	6	14	12	26 (31%)
2015-16	75	29	4	3	66	25	9	4	0	0	17	4	22	16	38 (34%)
2016-17	59	16	8	7	53	12	6	4	0	0	9	3	6	7	13 (10%)

Tot.	**711**	**229**	**79**	**78**	**569**	**197**	**142**	**32**	**94**	**34**	**147**	**32**	**47**	**40**	**87 (23%)**

program, which has been set on-hold naitionwide since 2015-16 though. However, the program maintains the stable number of admissions apart from the scholarship awards. This is due to the wide variety of program student characterisitcs, which accepts the non-national male and female students, in addition to the transferring students from other programs within DAU or from other national, private or foreign universities. This gives a high privilage for the offered architectural program in DAU compared to other national universities in Saudi of very limited acceptance for foreign or transferring students. Meanwhile, the low percentage of students graduating on-time has been considered for effective improvements. In this regard, the benchmark of the study plan with top national and international NAAB accredited programs has developed the program's efficiency with reduced credits and better academic advising for students to garduate without delay.

The University (DAU), University Preparatory Program (UPP), and the Architecture Program of the college (CADD) set the qualifications of admission for the ARC program at three admission levels of requirements. First is the University regulations set by the DAU's Deanship of Admission, Registration and Student Affairs. The regulations require each student to have obtained a General Certificate of Secondary Education or its equivalent from inside or outside the Kingdom, in addition to be of acceptable conduct and medically fit. The applicant must pass the DAU's admission test for general qualification. The foregin students residing in Saudi are eligible to apply for DAU admission, which is a major benefit in comparison to the other National universities of mainly Saudi students. The academic advising is assigned to each admitted student to DAU from day one. This academic advisor is assigned by the program that the student has been accepted for. The academic advisor is responsible for guiding the student throughout the university enrollment. The role of academic advisor extends from the efficient study plan achievement to solving the personal problems that the student may face during the study at DAU. Since the Saudi Ministry of Education sponsers up to 50% of the National students in DAU programs, the admitted studemts are double-filtered through DAU and the Ministry as well. This ensures the student compliance with both the DAU bylaws and the Ministrial elligibaility as well. In this process, the Ministry preserves the right to cut the sponsership of any student who is not meeting the condition of at least good academic performnace during the course of study.

The second phase of admission concerns the University Preparatory Program (UPP). This program is responsible for the initial 'placement test' of English level. The student who passes the placement test is exempted from the intenseve Engligh language studies of one full semster. The admitted students are not allowed to start the program level unless succefully passing the first placement test, otherwise passing these preparatory English courses of one semster. Meanwhile, the UPP courses continues at the program level with higher English level leading to the IELTS preparatory examination, in addition to other

pedagogical courses of personal skills, physical fitness and native cultural studies. The UPP program is compulsory for all programs according the Ministry of Education regulations, which counts from one-quarter to one-third of the total study plan of any university program in the Kingdom. The study plan of these UPP courses are distributed along the vertical levels set by each program, while only the first semester of any DAU program is totally reserved for UPP courses.

At the program level, the DAU system allows the transfer of students from other universities or among the DAU programs according to the equivalency of studied UPP and core program courses. In this regard, some students transfer to the DAU's Architecture Program after conducting the equivalency process. First, the transfering student should satisfy the general admission requirements set by DAU. Second, the DAU's Deanship of Admission, Registration and Student Affairs posts the certified transcript together with the desicption of courses studied by the transferring student to both the UPP and the core program for conducting the course equivalency. In principle, If any studied course has less credits than the comparable one offered in DAU or passed with less than good (C) grade, the course equivalecy is rejected. Meanwhile, the total credits accepted for equivalency should not exceed two-third of the total credits studied before.

Cumulative overview of the program student characteristics since it has been delivered in 2009 observes further statistical clarifications in the same table above. The accumulated admission of 940 students to the ARC program subdivides in to the continual increase from the first batch of 59-students in 2009-2010 to sixth batch of 201-students in 2015-2016. Despite the decrease in governmental scholarships, DAU has invested in the infrastructures on the university level in general and the prestigious relocation of CADD's state-of-the-art facilities in specific, which sustains the average admission for the ARC program. The spacious floor area of about 9,000m^2 for the new home of CADD prospects the future increase of male and female students in common, provided that new programs at the undergraduate and graduate levels have been prepared to commence in the following academic year.

The percentage of the female to the male students, which approaches one-third of the total number, reflects the major interest of the society in the first Saudi female program of architecture offered by DAU for women to participate in the Kingdom's policy of sustainable development. This community service affords the opportunity for the female architectural graduates to help satisfying the needed market for professional graduates in the booming Saudi building sector. Meanwhile, the relatively high percentage of transferring female students from other programs to the ARC of DAU equals the male students, which highlights the attractive program for females to pursue their higher degree study in architecture and take the initiative in Saudi with expanded role of the women in society.

Another phenomenal observation is the high percentage of enrolled foreign students in the program, which indicates the reputable program on the regional level. Many students from various Arab countries such as Jordan, Syria, Lebanon and Egypt accomplish their degree with successful registration in their respective

syndicates back home for professional practicing without any reservation of the degree equivalency. Thus, the program helps in resolving one of the major demands of the foreign families living in Saudi for university enrollment on equal basis between foreigners and natives and for males and females as well. Also the mixture of foreign and native students of the program, in addition to the faculty staff themselves of various backgrounds, enforce the academic process with enhanced learning environment and social diversity of regional character.

Although the program has no part-time enrollment, any one male or female student can apply for stopping the program up to one year due to personal reasons. In this process, the student fills out the form of stopping request over the university system, which states the reasons with the hard attachment of genuine documents to support the request if needed. The Program Council addresses the request with the review of submitted documents for preliminary recommendation. The College Council further investigates the request with the recommendation to be discussed at the University Council level for final decision. If acceptable, the student can be re-enrolled to pursue his/her program after the termination of the stopping period with the possibility of renewal through the same process up to maximum two years. This allows for the cultural constraints such as the married females to balance between the full-time program and the emergencies of personal matters. One indicator of this non-registered student for some reason, which has a considerable percentage, affects the time to graduation to be taken into consideration for the cohort completion of the program.

Meanwhile, the student statistics of time to graduation monitors the cohorts since the beginning of the program in the academic year 2009-2010. Although the general percentage of students graduating in minimal five-years time of the architetcure program has increased from 17% for the first batch to 31% for the second and 34% for the third, still the below average percentage highlights the difficulty of the original study plan to be achieved on time. The same issue has been raised in the benchmarking with the top national King Saud University and the top-tier architectural programs in the US universities where the total average indicated 166-credits compared to the DAU's program of as high as 172-credits. According to the program's benchmarking per course and per credit, the total number of credits has been thoroughly reviewed to end up meeting the most efficient average benchmark of 166-credits.

In this regard, the academic advising has been given a great emphases to adjust the study plan of each student with the proper co-requiste/pre-requiste requirements, thus achieving the reduced credits of the study plan in minimal time possible. This shift of study plan, however, is currently considered for each and every enrolled student and not only the new cohorts. The revised plan is expected to pay off in the following semsters for regular students to achieve the study plan on-time. Individual cases of students registering less than the study plan's number of credits per semester is given extra care of academic advising to take into consideration any obstacles that may delay the time to graduation. This includes the students of temporary excuses, the high percentage of married female students whom may need temporary leave during the enrollement (without restriction due to cultural

concerns), personal or financial difficulties during the course of study and any other circumstance that may delay the graduation. Meanwhile, the Quality Unit of DAU has benchmarked the 2016-2017 strategic plan for all DAU students to be at least 75% in maximum 150% time to graduation. Therefore, the revised architecture program together with the univeristy strategic plan have a similar target of minimal time to graduation.

Nevertheless, the detailed monitoring for each of the architetcural batches since 2009-2010 explores the time span taken by students to achieve the study plan. Specifically, the first two batches indicate the graduatuing possibility up to 150% of the normal time to completion, whereas the following two batches show up to the current extent of five years that is the normal time to-date. The first batch of 2009-2010 had 6-students graduating on-time and 13-students graduating within 150% of the time to graduation, in addition to 7-students expected to gradute in this academic year of 2016-2017 and another 7-students withradwing for good, thus the total cohort of 33-students excluding the transferring and the non-registered students of the same academic year. Accordingly, 18% of the first-batch students were able to graduate on-time and 39% graduted in 150% of the program's time with the possibility of adding the 21% of students expected to graduate this year. The majority of students graduating in 150% of time further highlights the needed revision of the program to meet the average benchmark.

The second cohort of 57-students in 2010-2011 had 19-students withdrawing for good, where the remaining 38-students had 6-students graduating on time and 18-students graduating within 150% of the progrm's time that can increase to 32-students by the end of the next academic year 2017-2018. Therefore, 16% of the regular cohort graduated on time and 84% are expected to graduate with the 150% of the program's time. These percentages are more or less showing the same indicators of the previous batch in larger numbers though. It becomes clearer that the program usually takes longer for a regular student to graduate on the planned time. The third cohort of 2011-2012 totals 65-students with 28-students withdrawing for good. However, 10-students had made it to graduate on time with more 3-students graduating one-year later, while the remaining 34-students perhaps graduate in 150% of the normal time. Further cohort of 2012-2013 continues the same rate of exceeding the time plan for the majority of students.

The general observation for the increasing percentage of withdrawals from the program along the detailed cohort statistics points out the majority of withdrawals from the beginning of time during the first-year of enrollment. This may assume other factors apart from the program itself such as the undecided student whether to choose architecture or a different descipline to start his/her career. The sharp decrease in the number of student withdrawls at later stages of the program indicates the encouragement of students to carry on with the study plan even though the program extends in time for the majority of students to graduate. Therefore, the late graduation has made the neccessity of the program to re-study the study plan (curriculum) and modify it to become 166-credit hours to help the students

graduating on time. The new study plan is in the process of being approved by the Ministry of Education for activation.

Parallel to the student caharacteristics, the program Faculty characteristics include the rank of cademic title, number of research publications, reappointment, professional licensing in Saudi, in addition to the activities of each Faculty member of the progrm since the NAAB Visit Two (table 11). The faculty information reflects the increasing number of academic publications, especially by the Ph.D holders and above. Also the engagement of faculty members in the professional practice through the licensed membership in Saudi, such as the licensing by the Saudi Council of Engineers (SCE) and the international organizations as well. Meanwhile, all of the faculty are engaged in the various committees and activities of the programm with equal distribution of loads by the program administrators.

Table 11. Program Faculty Characteristics:

#	Name	Gen.	Tit.	Activities	Professional License in Saudi			Reappointment (annual renewal)	Number of Research Publications during DAU appointment
					2014-15	2015-16	2016-17		
1	Mansour Aljadeed	M	Assoc.	Dean of the College since 2017	SCE Member				2 One Book and one published paper
2	Abdulaziz Abusuliman	M	Assis. Prof.	Dean (2016-2017) Chair of students training programs	SCE Member				none
3	Sultan Alotaibi	M	Assis prof.	-Vice Dean - NAAB Committee - LABS Committee - Design studio committee - Research Committee at University level	SCE member			Since 2015	3 papers
4	Anna Laura Petrucci	F	Assoc. prof.	-Chair of the program -Member of CADD Research Committee and CADD Council, - Member of NAAB Committee	Italian Chamber of Architecture			Since 2014	8 + 3 under publishing
5	Gamal M. A Elkholy	M	Prof.	Advisor Committee, Head and Member of DN Committee on the Department and College levels.	SCE member			Since 2007	2 under publishing
6	Maad A. Hassan Aldelamy	M	Prof.	Chair- CADD's Research Comm., Arch. Quality Unit; CADD Strategic Pl Com.; Students. Affairs, Alumni, College Council Comm.	Texas Board of Professional Engr.; American Soc. of Civil Engeering.			May 2011	4 published research papers and one in the process
7	Mustafa G. Ramadan	M	Assoc. Prof.	Member of NAAB Committee - Chair of Labs committee- Chair of Student affairs committee	Member of the Scientific and Technical Division of the buildings architects health - Saudi Society			Since 2010	4 + 1 under publishing

					for Science Omran		
8	Yasser E. Fouda	M	Assoc. Prof.	- Chair of Library" Committee. - Chair of "Bi- weekly Lectures" Committee. - Academic Advising - Member of the University "Promotion Committee. - Member of "NCAAA'. - Member of "NAAB' Physical Resources Team.	SCE member "Consultant" Membership #: 51949	Since Oct. 2016	-03-
9	Ali El Shazly	M	Assoc.	CADD quality coordinator	SCE member	since 2012	none
10	Ahmad Alrowaished	M	Assoc.	Material Lab committee	SCE member	Since1900	2
11	Ignacio J. Palma	M	Assistant prof.	NAAB committee	Spanish Council of Arch.	Since 2015	none
12	Ibrahim Aljutaili	M	Assistant prof.	Training committee	Go. Society	Since 2015	none
13	Hassan Qari	M	Assistant Prof.		SCE member	Since 2017	none
14	Assile Abou Diab	F	Assistant Prof.	- Department Council - Quality committee - Development of guidelines for the external review system	Order of Engineers and Architects, Beirut, Lebanon	Spring 2016/2017	One conference paper and two journal papers (in press)
15	Hind Abdel Moneim Khogali	F	Assistant prof	NAAB Committee NCAAA Committee Exam Committee/ F Student Affairs/ F	USGBC RIBA SEC	Since 2010	6 research papers 4 under publishing
16	Donia Abd-Elgawad M.	F	Assistant prof.	Department Council; Training and community service committee.		Fall 2017	none
17	Mohammed Alqahtani	M	Lecturer	NAAB Committee	SCE member	Since 2014	PhD Researcher
18	Majid Elabd	M		Chair of the Committee for Student Activities. Training and community service committee	RIBA AfH	2014	3 (1 conference and 2 papers for the Ministry of Health in KSA)
19	Dima Ofaisa	F	Instructor	Member of DN Committee on the Department and College levels.	SCE member	2011	none
20	Lilas Mansour	F	instructor	Responsible for the Model making lab in the Female section-	SCE member	Since 2016	none
21	Noha Qassab	F	instructor	NAAB Students affair committee Self-assessment report	Lebanese council of engineers	Since 2003	none

22	Noor Tayeh	F	Lecturer	NAAB Committee LABS Committee	USGBC	Since 2016	none
23	Ruba (M. A.) Salah	F	Lecturer	NAAB Materials Lab Committee	Member of Jordan Engineers Association 1996 Member of JGBC 2013	Part-time 2015-2017 Full time 2017	none
24	Jabran Zaffar	M	Lecturer	Academic Advising NAAB Committees for Catalog and website LABS Student Activities	BCE	Since 2013	none
25	Saad al-Otaibi	M	Instructor	-	SCE Member	Since 2010	one
26	Bareera Ahmad	F	Teaching Assistant	NAAB Committee LABS Committee		Since 2012	none
27	Mohannad Bawadkji	M	Teaching Assistant	NAAB committee Activity committee	SCE member	since 2014	none
28	MARWAH Bashatah	F	Teaching Assistant	LABB Committee Activity committee		2016	none
29	Mohannad Alqahtani	M	Teaching Assistant	NAAB committee Activity committee	SEC Member	since 2015	none
30	Najla-Alabbad	F	Teaching Assistant	NAAB committee Activity committee	SEC Member	Since 2016	none
31	Basma AlSudairi	F	Teaching Assistant	NAAB committee Activity committee	SEC Member	Since 2017	none
32	Anas Hussein	M	Lecturer	NAAB committee Activity committee	SCE member	Since 2013	none
33	Ghayyath Alshawwa	M	Teaching Assistant	NAAB committee. Student council committee - Administrative affairs Committee Excuses Committee Catalog & Website Committee	SCE member	Since 2015	none
34	Abdulmohsen Al Subaie	M	Teaching Assistant	Responsible for Model Making Lab	SCE Member	Since 2016	none

1.3.2. Faculty Credentials

The Faculty credentials are evaluated through the DAU's policy of recruitment, where the Department of Human Resources announces the vacancies of faculty recruitment for the various academic ranks needed by each of DAU's Colleges. Each applicant is referred to the respective College administration for detailed CV investigation and interviewing for final nomination. The DAU contract is one-year duration, which is regularly renewed unless either party denotes the contract termination. The job description of faculty members has general specifications in the DAU contract, with special activities documented by the DAU's Quality Unit (supplementary 4.8), in addition to the distribution of loads and activities by the College Dean for each recruited faculty member. The program of architecture recruits highly qualified candidates of all ranks and positions with special emphases on the degrees obtained and professional experiences that reflects the market's needs with absolute social equity of nationality or gender. The DAU's annual re-

appointment of the faculty members allows the adjustment of all ranks required for each program to promote the human resource (Tables 12-16).

Specifically, the university is now reviewing the internal process of promotion for the various academic ranks of the already recruited faculty members. In this process, DAU has established an agreement with the top national King Saud University (KSU) for the faculty staff of DAU to be promoted according to the KSU procedures and scientific committees. Meanwhile, the university encourages the appointed faculty members to conduct research activities, training programs and community services for the intellectual development of human resources. The current human resource of the architectural program is fortunate by a variety of academic ranks and expertise from various schools of thoughts that benefits the educational process, with social equity regardless of gender or place of origin. This is clearly demonstrated by the wide variety of qualified male and female faculty members in terms of ranks, education, background, professional practicing and teaching experiences. The program has built up this distinguished human resource since the beginning of the program in 2009, which now has reached the quantity and quality of faculty members that professionally covers all areas of the study plan with maintained faculty/student ratio of maximum 1:10 in studio-based courses and 1:25 in other courses. This is supported by the relaxed percentage of floor areas per student and faculty members throughout CADD space (Tables 17 & 19).

Table 12. Position Description for all Faculty and Staff

#	Name	Position Description
1	Mansour Aljadeed	Associate professor, Dean of the college.
2	Abdulaziz Abusuliman	Assistant Professor, full time faculty member, 13 credit hours teaching load (Dean of the college , 2016-2017), chair of the community service and training committee.
3	Sultan Alotaibi	Vice dean of CADD and Fulltime faculty member of 10-Credits teaching load per semester – Academic Advisor for a group of students – Vice chair of University research committee – Head and Member of several committees on the department and college levels.
4	Anna Laura Petrucci	Chair of the Architecture, 12 teaching load per semester, member of College Council, Research chair for the College, active member of recruitment, cv development, research and quality committee on department level. Member of NAAB Committee.
5	Gamal M. A Elkholy	Fulltime faculty member of 14-Credits teaching load per semester – Academic Advisor for a group of ~ 20 students , Head and Member of DN Committee on the Department and College levels.
6	Maad Aldelamy	Fulltime faculty; teaching load=16 Credits/semester – Academic Advisor; Chair - CADD's Research Comm. and member of several committees (as listed above) per both department and college level.
7	Mustafa G. Ramadan	Fulltime faculty member of 14-Credits teaching load per semester – Academic Advisor for a group of students – Final Exams Coordinator of the College – Member of course schedule committee on the department.

8	**Yasser E. Fouda**	**- Fulltime Faculty Staff Member in Male Section, of: 14 Credit Hours (05 Hours Lectures + 18 Hours of Practical sessions) teaching Load in a semester,** **- Chair of "Central Library" Committee, for monitoring all Library aspects through its linkage to the CADD, and resembling its main learning resource.** **- Chair of "Bi- weekly Lectures" Committee, for the organization of carrying on a group of Cultural and Scientific bi-weekly lectures.** **- Academic Advising for a specified group of students.** **- Member of the University "Promotion Committee" for CADD.** **- Member of "NCAAA Learning Resources Requirements" Team.** **- Member "NAAB Physical Resources Requirements" Team.**
9	**Ali El Shazly**	**Fulltime faculty member of 13-Credits teaching load per semester – Academic Advisor for a group of students – Quality coordinator of the College – Member of the College Council – Member of several committees on the department and college levels .**
10	**Ahmad Alrowaished**	**Full-time faculty member with 14-credits teaching load per semester – Academic Advisor for a group of students – Teaching in DAU-CADD since 2017.**
11	**Ignacio J. Palma**	**Full-time faculty member with 14-credits teaching load per semester (aprox.) – Academic Advisor for a group of students – NAAB Team – Teaching in DAU-CADD since 2015.**
12	**Ibrahim Aljutaily**	**Fulltime faculty member of 12-Credits teaching load per semester – Academic Advisor for a group of students – Member of training committee – Member of the Department Council – Member of several committees on the department and college levels .**
13	**Hassan Qari**	**Fulltime faculty; teaching load=16 Credits/semester – Academic Advisor.**
14	**Assile Abou Diab**	**Fulltime faculty member (Assistant Professor)- teaching engineering courses & Mathematics -Advising design studio students on structural systems - Academic Advisor for a group of students – Member of several committees on the department level (Department Council; Quality; Development of policy for external review system)**
15	**Hind Abdel moneim**	**Assistant Professor, full time faculty member, 16 CR teaching load per semester, Academic advisor for a group of students, Active member in NAAB Committee, NCAAA Committee, Head and member of several committees on the department and college level.**
16	**Donia Abd-Elgawad M.**	**Fulltime faculty member (Assistant Professor)- 13 teaching load per semester Member of several committees on the department level (Department Council; Training and community service committee.**
17	**Mohammed Alqahtani**	**Full-time faculty member with 13-credits teaching load per semester (approx.) – Academic Advisor for a group of students. Teaching in DAU-CADD since 2014.**
18	**Majid Elabd**	• Chair of the Student Extra-Curricular Activities Committee, DAU • Decision-maker of the Training and Community Service Committee, CADD, DAU. • **Fulltime Lecturer of 18-Credits teaching load per semester.** • **4.5 continuous years of accumulated teaching at DAU (since 2014)** • Academic Advisor of an assigned students group
19	**Dima Ofaisa**	**Full time faculty member of 14 credits teaching load per semester- academic advisor for a group of students – Advising design studio students on structural systems** **– Engaged in Medical Excuse and DN removal committee.**
20	**Lilas Mansour**	**Full time faculty member of 11 credits teaching load per semester- fresh member**
21	**Noha Qassab**	**Part timer faculty member (2015/2016) - Full Time Faculty member since 2016/2017 of 14- credit hours teaching load per semester- academic advisor- curricular activity supervisor- NAAB student affairs committee- NAAB self-assessment report committee**

22	Noor Tayeh	Fulltime faculty; teaching load=17 Credits/semester – Academic Advisor; Member of several committees (mentioned earlier).
23	Ruba (M.A.) Salah	Lecturer-Fulltime faculty member of 15-credit hours teaching load- Member of physical resources committee (Materials Lab)
24	Jabran Zaffar	Fulltime faculty member of 14-Credits teaching load per semester- Academic Advisor for a group of ~ 20 students… Member of several committees for NCAAA and NAAB.
25	Saad al-Otaibi	Fulltime faculty member of 20-Credits teaching load per semester – Academic Advisor for a group of ~ 20 students
26	Bareera Ahmad	Fulltime Teaching Assistant of 14-Credits teaching load per semester
27	Mohannad Bawadkji	Fulltime Teaching Assistant of 16-Credits teaching load per semester- Member of course schedule committee on the department.
28	MARWAH Bashatah	Fulltime teaching Assistant of 16-Credits teaching load per semester- Member of curricular activity committee on the department. – Lab committee.
29	Mohannad Alqahtani	Fulltime teaching Assistant - 16-credits teaching load per semester – member of activity committee _member of NABB committee
30	Najla-Alabbad	Fulltime teaching Assistant - 16-credits teaching load per semester – member of activity committee _member of NABB committee
31	Basma Al Sudairi	Fulltime teaching Assistants - 16-Credits teaching load per semester- Member of curricular activity committee on the department. – NAAB room team
32	Anas Hussein	Full time faculty member of 15 credits teaching load per semester- academic advisor for a group of students.
33	Ghayyath Alshawwa	Fulltime teaching assistants - 18-Credits teaching load per semester- coordinator of DN Committee on the Department – member of student activity committee on the department - Rapporteur of the Administrative Committee of the College - - Academic Advisor for a group of 25 students – member of NAAB Team Room committee – member of PR committee in the College.
34	Abdulmohsen Al Subaie	Full time Teaching assistant-17 – credits hours, responsible for the model making Lab.

Table 13. Rank, Tenure, and Promotion

#	Name	Rank, tenure, and promotion
1	Mansour Aljadeed	Associate Professor, Dean of the College
2	Abdulaziz Abusuliman	Full time Assistant Professor, (Dean of the college, 2016-2017)
3	Sultan Alotaibi	Assistant Professor since 2015 - Appointed Assistant. Prof. in DAU since January 2015 according to the typical DAU contract of valid annual renewal.
4	Anna Laura Petrucci	Associate professor since 2014 and appointed Assoc. Prof. in DAU since September 2012 according to the typical DAU contract of valid annual renewal. chair of architecture department. Applying for next step of promotion as full professor in 2017

5	Gamal M. A Elkholy	Professor since 2008 Ain Shams University (before DAU) –Sabbatical leave and Appointed Prof. in DAU since Jan 2014 according to the typical DAU contract of valid annual renewal.
6	Maad A. Hassan Aldelamy	Fulltime Professor since May 2011; since the signing (per mutual agreement) of the initial contract.
7	Mustafa G. Ramadan	Assistant Professor since 2005 (before DAU) – Appointed Assoc. Prof. in DAU since September 2011 according to the typical DAU contract of valid annual renewal.
8	Yasser E. Fouda	Full-Time / Associate Professor Reappointment, is according to DAU Appointment System, it follows the unified system of annual renewal of original contracting without any change in the conditions of original contract
9	Ali El Shazly	Associate Professor since 2006 (before DAU) – Appointed Assoc. Prof. in DAU since September 2012 according to the typical DAU contract of valid annual renewal.
10	Ahmad Alrowaished	Full time assistant professor since 2017 – 14 credits hours teaching load, advisor for assigned number of students.
11	Ignacio J. Palma	Full-time faculty member (Assit. Professor) with 14-credits teaching load per semester (aprox.) – Academic Advisor for a group of students – NAAB Team – Member of the Spanish Council of Architects, and European Association of Arch. – Teaching since 2001 – Working as architect since 1996 (own employed and freelance) – Two books published – Papers - member of PassivHaus Institut (GER).
12	Ibrahim Aljutaily	Assistance Professor since 2001 (before DAU) – Appointed Assist. Prof. in DAU since March 2015 according to the typical DAU contract of valid annual renewal.
13	Hassan Qari	Assistant Professor since February 2017 in DAU according to the typical DAU contract of valid annual renewal.
14	Assile Abou Diab	Assistant Professor since February 2017 in DAU according to the typical DAU contract of valid annual renewal.
15	Hind Abdel moneim	Assistant Professor in Architectural Engineering in "Sustainable Eco- Buildings Assessment Methods" in Nov/ 2017. Lecturer since August /2011 in DAU according to contract of valid annual renewal contract.
16	Donia Abd-Elgawad M.	(Assistant Professor) in DAU since September 2017. According to the typical DAU contract of valid annual renewal.
17	Mohammed Alqahtani	Lecturer in DAU since 2014 with 13-credits teaching load per semester (aprox). Academic Advisor for a group of students – NAAB Team – Member of SCE. Working as architect since 2010 (own employed and freelance). Win an international prize in 2011(The Lise Ettridge Memorial Prize)
18	Majid Elabd	• Chair of the Student Extra-Curricular Activities Committee, DAU • Decision-maker of the Training and Community Service Committee, CADD, DAU. • Fulltime Lecturer of 18-Credits teaching load per semester according to the typical DAU contract of valid annual renewal • 4.5 continuous years of accumulated teaching at DAU (since 2014) • Academic Advisor of an assigned students group • Applying for next step of promotion as Assistant Professor in 2018
19	Dima Ofaisa	lecturer. in DAU since September 2011 according to the typical DAU contract of valid annual renewal
20	Lilas Mansour	Instructor for architects and interior designers students in UNRWA/ Syria , Main Auditor for architectural projects in General Company for Engineering Studies and Consulting /Syria, consultant in HALCROW British company , consultant and head of architectural department in ACE company /Saudi
21	Noha Qassab	Architect engineer since 2002 - Lecturer at BAU before DAU Lecturer and help student desk at ESNAD before DAU instructor at DAU since 2016-2017 as full timer – consulting engineer at J and Z office
22	Noor Tayeh	Lecturer since February 2016 in DAU according to the typical DAU contract of valid annual renewal.

23	Ruba Salah	- Architectural Engineer since 1996 (employee for engineering consulting companies in Amman and Riyadh) - Consultant Architectural Engineer since 2011 (certified by the Jordan engineers Association) - Lecturer at PNU- Interior Design (2010 -2017) - Part -time Lecturer at DAU- CADD- Architecture (2015-2017) -Fulltime lecturer at DAU- CADD- Architecture (2017-up to date) - External Examiner (Juror) at PSU – Senior Projects of Architecture - External Examiner (Juror) at PNU- Senior Projects of Interior Design - Internal Examiner (Juror) at DAU- Senior Projects of Architecture and Interior Design
24	Jabran Zaffar	Lecturer in DAU since 2013 with 14-credits teaching load per semester. Chair for Digital design in CADD Department.
25	Saad al-Otaibi	Full time Lecturer with 14 teaching credits hours per semester, appointed at DAU as TA since 2010 and got his Master in 2016.
26	Bareera Ahmad	Worked as an architect in several design firms as well as practiced privately. Appointed T.A in DAU since February 2012.
27	Mohannad Bawadkji	Appointed Teaching Assistant. in DAU since August 2014 according to the typical DAU contract of valid annual renewal.
28	MARWAH Bashatah	Appointed Teaching Assistant. in DAU since October 2016 according to the typical DAU contract of valid annual renewal.
29	Mohannad Alqahtani	Appointed Teaching Assistant. in DAU since January 2015 according to the typical DAU contract of valid annual renewal.
30	Najla-Alabbad	Teaching assistant at DAU since SEP 2016
31	Basma Alsudairi	Full time Teaching Assistant at DAU since 2015 and she hs 16 teaching load of credit hours.
32	Anas Hussein	Lecturer in DAU, worked as a Teaching Assistant. in DAU since September 2013 promoted to lecturer in December 2017. according to the typical DAU contract of valid annual renewal
33	Ghayyath Alshawwa	Appointed Teaching Assistant. in DAU since January 2015 according to the typical DAU contract of valid annual renewal.
34	Abdulmohsen Al Subaie	Appointed as teaching assistant at DAU since 2016 according to the Typical DAU contract of valid annual renewal

Table 14. Reappointment

#	Name	Reappointment
1	Mansour Aljadeed	Associate Professor, Dean of the College since 2017
2	Abdulaziz Mahdi Abusuliman	Full time Assistant Professor, (Dean of the college, 2016-2017)
3	Sultan Alotaibi	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.

4	Anna Laura Petrucci	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
5	Gamal M. A Elkholy	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
6	Maad A. Hassan Aldelamy	Reappointment (or renewal) agreed upon annually since the signing of the initial contract.
7	Mustafa G. Ramadan	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
8	Yasser E. Fouda	According to DAU Appointment System, it follows the unified system of annual renewal of original contracting without any change in the conditions of original contract.
9	Ali El Shazly	Reappointment follows the DAU unified system of annual renewal of original contracting without change in the conditions of initial contracting.
10	Ahmad Alrowaished	Appointed as full time assistant professor at DAU January 2017
11	Ignacio J. Palma	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
12	Ibrahim Aljutaili	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
13	Hassan Qari	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
14	Assile Abou Diab	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
15	Hind Abdel moneim Osman	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
16	Donia Abd-Elgawad M.	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
17	Mohammed Alqahtani	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
18	Majid Elabd	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
19	Dima Ofaisa	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
20	Lilas Mansour	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
21	Noha Qassab	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.

22	Noor Tayeh	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
23	Ruba (M.A.) Salah	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
24	Jabran Zaffar	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting
25	Saad al-Otaibi	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
26	Bareera Ahmad	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
27	Mohannad Bawadkji	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
28	MARWAH Bashatah	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
29	Mohannad Alqahtani	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
30	Najla-Alabbad	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
31	Basma AlSudairi	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
32	Anas Hussein	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
33	Ghayyath Alshawwa	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.
34	Abdulmohsen Al Subaie	Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.

Table 15. Social Equity

#	Name	Nationality	Teaching Load	Administrative Load	Annual Vacation	Pension (according to the Saudi system of employment)	Tax	Allowances (for residence, transport, and others)
1	Mansour Aljadeed	Saudi	-	Fulltime as the Dean of the college	45 days according to contract	Yes (fees shared between DAU and the natives)	No	yes
2	Abdulaziz Mahdi Abusulimain	Saudi	13-credit per semester	Equivalent to two days per week	45 days according to contract	Yes (fees shared between DAU and the natives)	No	yes
3	Sultan Alotaibi	Saudi	10-credits per semester	Yes (equivalent to 4-days per week)	45 days according to contract	Yes (fees shared between DAU and the natives)	No	yes

4	Anna Laura Petrucci	Italian	12 credit per semester	Yes, full time as department's chair	45 days according to contract	According Suadia Rules and DAU Regulations	No	included in total
5	Gamal M. A Elkholy	Egyptian	14-credits per semester	Yes (equivalent to 1-days per week average)	45 days according to contract	According Suadia Rules and DAU Regulations -	No	yes
6	Maad A. Hassan Aldelamy	American	14-16-sem hours	Yes, it varies an average of 2days/week	45 days, as per contract	N/A	Tax/ USA	Yes/included
7	Mustafa Ramadan	Egyptian	14-credits per semester	Yes (equivalent to 2-days per week in average)	45 days according to contract	According Suadia Rules and DAU Regulations -	No	yes
8	Yasser E. Fouda	Egyptian	14 Credit Hours/Semester: (05 Hours Lectures + 18 Hours of Practical sessions	In an average estimation: equivalent to 3 work days/week	45 days annually, as per contract	-Not Applicable-	-Not Payable-	Only for residence and transport, monthly paid
9	Ali El Shazly	Saudi	13-credits per semester	Yes (equivalent to 2-days per week in average)	45 days according to contract	Yes (fees shared between DAU and the natives)	No	yes
10	Ahmad Alrowaished	Saudi	14- credit hours per semester	Equivalent to two days per week	45 days according to contract	Yes (fees shared between DAU and the natives)	No	yes
11	Ignacio J. Palma	Spanish	14 credits (aprox.)	Yes (at least, equivalent to 6 hours per week in average)	45 days according to contract	According Suadia Rules and DAU Regulations	No	Yes/included
12	Ibrahim Aljutaily	Saudi	12-credits per semester	Yes (equivalent to 2-days per week in average)	45 days according to contract	Yes (fees shared between DAU and the natives)	No	yes
13	Hassan Qari	Saudi	12 credits (aprox.)	Equivalent to two days per week	45 days according to contract	Yes (fees shared between DAU and the natives)	No	
14	Assile Abou Diab	Lebanese	11-credits per semester	Yes (2 hours per day on average)	45 days according to contract	Yes (fees shared between DAU and the natives)-	No	yes
15	Hind Abdel moneim Osman	British Citizen	16 CR per semester	Yes (equivalent to 6-hours per week in average)	45 days according to contract	According Suadia Rules and DAU Regulations	No	Yes
16	Donia Abd-Elgawad M.	Egyptian	13 credits per week	Yes (2 hours per day on average)	45 days according to contract	According Suadia Rules and DAU Regulations	No	Included in total
17	Mohamed Alqahtani	Saudi	13 credits per week	Yes (at least, equivalent to 2 hours per week in average)	45 days according to contract	Yes (fees shared between DAU and the natives)	No	Yes/included
18	Majid Elabd	BRITSH	18-credits per week	Equivalent to two days per week -	45 days according to contract	According Suadia Rules and DAU Regulations	No	Included in total
19	Dima Ofaisa	Syrian	14-credits per week	Yes (1 hours per day on average)	45 days according to contrac	According Suadia Rules and DAU Regulations	No	yes

20	**Lilas Mansour**	**Syrian**	**11- credits per week**	**Yes approximately 3 hours per week**	**45 days according to contract**	**According Suadia Rules and DAU Regulations**	**No**	**Yes**
21	**Noha Qassab**	**Lebanese**	**14- credits per week**	**Yes approximately 2 hours per week**	**45 days according to contract**	**According Suadia Rules and DAU Regulations -**	**No**	**Yes**
22	**Noor Tayeh**	**Palestinian**	**17- credits per week**	**approximately 2 hours per week**	**45 days according to contract**	**According Suadia Rules and DAU Regulations**	**No**	**yes**
23	**Ruba (M.A.) Salah**	**Jordanian**	**15 credits per week**	**Full time**	**45 days according to contract**	**According Suadia Rules and DAU Regulations -**	**No-**	**Included in the package**
24	**Jabran Zafar**	**Pakistani**	**14 credits per week**	**Yes (equivalent to 6 hours/week**	**45 days according to contract**	**According Suadia Rules and DAU Regulations**	**No**	**Included in total**
25	**Saad al-Otaibi**	**Saudi**	**20-credits per week**	**Yes (equivalent to 6hours per week in average)**	**45 days according to contract**	**Yes (fees shared between DAU and the natives)**	**No**	**yes**
26	**Bareera Ahmad**	**Indian**	**14-credits per week**	**Yes approximately 3 hours per week**	**45 days according to contract**	**According Suadia Rules -**	**No**	**yes**
27	**Mohannad Bawadkji**	**Syrian**	**16-credits per week**	**Yes (equivalent to 2-days per week in average)**	**45 days according to contract**	**Yes (fees shared between DAU and the natives)-**	**No**	**yes**
28	**MARWAH Bashatah**	Lebanees	18 credit hours per week	**Equivalent to two days per week**	**45 days according to contract**	**According Suadia Rules and DAU Regulations**	No	yes
29	**Mohannad Alqahtani**	**Saudi**	**18-credits per week**	**Yes (equivalent to 2-days per week in average)**	**45 days according to contract**	**Yes (fees shared between DAU and the natives)**-	No	yes
30	**Najla-Alabbad**	Saudi	16 credit hours per week	**Equivalent to two days per week**	**45 days according to contract**	**According Suadia Rules and DAU Regulations**	No	yes
31	**Basma AlSudairi**	Saudi	16 Credit hours per week	**Equivalent to two days per week**	**45 days according to contract**	**Yes (fees shared between DAU and the natives)**	No	yes
32	**Anas Hussein**	**Sudanese**	**14-credits per week**	**Yes (2 hours per day on average)**	**45 days according to contract**	**According Suadia Rules and DAU Regulations**	**No**	**Yes/included**
33	**Ghayyath Alshawwa**	**Jordanian**	**18-credits per week**	**Yes (equivalent to 2-days per week in average)**	**45 days according to contract**	**According Suadia Rules and DAU Regulations** -	**No**	yes
34	**Abdulmohsen Al Subaie**	Saudi	16 credit hours per week	**Equivalent to two days per week**	**45 days according to contract**	**Yes (fees shared between DAU and the natives)**	No	yes

Table 16. Faculty development

#	Name	Developments
1	**Mansour Aljadeed**	**Associate professor , Dean of the college**
2	**Abdulaziz Mahdi Abusuliman**	**Full Time an assistant professor, (Dean, 2016-2017), community service and training committee chair, teaches a Master level course at King Saud University.**

3	**Sultan Alotaibi**	**Engaged in NCAAA and NAAB committees tasks, collaborated in various academic reports for existing and new programs in CADD, valid SCE license for consultancy works in architectural design, member of several national and international society**
4	**Anna Laura Petrucci**	**Engaged in national and NAAB accreditation tasks, collaborated in various academic reports for existing and new programs in CADD, applying for license for consultancy works in architectural engineering, leading research and architectural competition activity and lecturing international and national, member of scientific committee and co-director for international advanced master in Management of Complex Project in Architecture by La Sapienza Roma/ Paris Val De Seine**
5	**Gamal M. A Elkholy**	**Member of the Egyptian jury of the Standing Scientific Committee to examine the scientific production for positions of Professors and Associate Professors Eleventh session in January 2013 to date, Member of arbitration for applicants for jobs Professors the University of Jordan, Member of several academic journals abroad.**
6	**Maad A. Hassan Aldelamy**	**Principle author of "DAU 2020"; report submitted to upper management in May 2012, Principle author of "the conference attending policies" report was submitted and approved by the Graduate Dean at the time (Dr. Hani Khachokchi). Other activities related to the above mentioned committees, etc.**
7	**Mustafa Ramadan**	**Engaged in national and NAAB accreditation tasks, collaborated in various academic reports for existing and new programs in CADD, member of several academic journals abroad.**
8	**Yasser E. Fouda**	**- Enrolled in DAU's various NAAB and NCAAA activities committees for developmental tasks.** **- Enrolled with a valid active Consultancy License at "Saudi Council of Engineers" SCE, since 2011 - Membership #: 51949.** **- Enrolled with as a full member at "Society of Egyptian Architects" SEA, since May 2013 - Architect ID Number: Egy 65.88.AX-13.2.394-13.2.394-ASM.** **- Enrolled with a valid active Consultancy License at "Egyptian Syndicate of Engineers" since July 2004 - Membership #: 2293/2.** **- Appointed as an external referee for the Scientific Journal "Landscape and Urban Planning" issued by ELSEVIER scientific publishing.** **- Appointed as an Internal/External referee for the Scientific Journal "Architecture and Planning Journal" issued by the Faculty of Architectural Engineering, Beirut Arab University.**
9	**Ali El Shazly**	**Engaged in national accreditation and NAAB SE tasks.**
10	**Ahmad Alrowaished**	**Appointed as an assistant professor at DAU since January, 2017, engaged in professional practice.**
11	**Ignacio J. Palma**	**NAAB Team, and research committee**
12	**Ibrahim Aljutaili**	**Give my opinion on researches for Albina Journal , Engaged in national and NAAB committees tasks.**
13	**Hassan Qari**	**Engaged in professional practice**
14	**Assile Abou Diab**	**Engagement in national accreditation tasks, collaboration with design studio classes**
15	**Hind Abdel moneim Osman**	**Having my PhD Nov, 2017, Member in NAAB and NCAAA Committees, Developed History of Architecture and design studio courses in CADD/ARC, valid RIBA, USGBC, SEC license for consultancy works in architectural engineering, member of several academic journals broad. Reviewer for International per review Journals, Published 6 papers, 4 papers ready for publishing. One Book was published, Three book under publishing.**
16	**Donia Abd-Elgawad M.**	**Engaged in Training and community service committee, collaboration with design studio classes in the first semester, doing research.**
17	**Mohammed Alqahtani**	**Engaged in national and NAAB accreditation tasks, collaborated in various academic reports for existing and new programs in CADD, valid SCE license for consultancy works in architectural engineering, Doing PHD research .**
18	**Majid Elabd**	**Doing Ph.D. research - Upgrading my M.Phil**

19	**Dima Ofaisa**	**Engagement in Medical Excuse and DN removal committee, collaboration with design studio classes**
20	**Lilas Mansour**	**Develop my Teaching skills , and variety of ways helping the students to achieve the best concept for their design and find the potential capabilities in them , improve training methodology and computer skills , besides documentation work**
21	**Noha Qassab**	**Develop teaching processes – management skills improvement - economical and architectural country research involvement**
22	**Noor Tayeh**	**Reappointment follows the DAU unified system of annual renewal of original contracting without any change in the conditions of initial contracting.**
23	**Ruba (M.A.) Salah**	**Valid JEA license for consultancy works in architectural design - Teaching skills – Green Building Interest.**
24	**Jabran Zafar**	**Engaged in many committees for obtaining NAAB substantial equivalency. Developing teaching methodology and skills for helping the students to achieve the best concept for digital training.**
25	**Saad al-Otaibi**	**Material buildings impacts on Façades design in Arab region, 2017**
26	**Bareera Ahmad**	**Engaged in national accreditation and NAAB substantial equivalency and administrative tasks**
27	**Mohannad Bawadkji**	**Engaged in national accreditation and NAAB committee tasks and administrative tasks**
28	**MARWAH Bashatah**	**Engaged in national accreditation and administrative tasks**
29	**Mohannad Alqahtani**	**Engaged in national and NAAB committee tasks and responsible for labs administration**
30	**Najla-Alabbad**	**Engaged in national and NAAB accreditation tasks and responsible for community services.**
31	**Basma AlSudairi**	**Engaged in national accreditation and NAAB committee tasks and administrative tasks**
32	**Anas Hussein**	**Finished master's degree in 2017. Engaged in national and NAAB accreditation tasks, collaborated in various academic reports for existing and new programs in CADD.**
33	**Ghayyath Alshawwa**	**Engaged in national and NAAB accreditation tasks and administrative tasks**
34	**Abdulmohsen Al Subaie**	**Engaged in national and NAAB accreditation tasks and administrative tasks**

Table 17. Square meters per student for studio-based learning

Typical floor-area (m2) of studio-based space in male and female sections from 10 to 15 students per studio course	Square meters per student
85m^2	**From 8.5 to 5.7m^2**

Table 18. Square meters of designated space per faculty member

Typical floor-area (m2) of office space designated for support of all faculty activities and responsibilities	Square meters per faculty member
11m^2 to 16m^2	**11m^2 to 16m^2**

Part Two: Educational Outcomes & Curriculum

2.1. Professional Degree and Curriculum:

The program curriculum is being assessed and evaluated by the CADD's Committee of Program Development in association with the two individual committees of the NAAB substantial equivalency and the NCAAA national accreditation. The program of architecture is thoroughly assessed and managed in continuous process of development at the four hierarchal levels of University, College, Department and Course levels with their interrelations for coherent professional degree and distinctive curriculum of architecture. Overview of holistic strategies for the program resulted in establishing the Consultation Unit with enforced Training Program of students, beside the latest Curriculum review with improved study plan on the international NAAB benchmark standards, without which the optimized learning outcomes of the architecture program in DAU could have never been achieved.

2.1.1 Practical Training Program:

Sending students to the field is self-evident in orienting the program's student performance criteria towards the market demands. The ARCH program adopts the training program requirement, where each student should spend minimum 60-days of training in professional practice (such as a certified architectural office) as partial requirement for graduation. The training may span during the last two years including summers of the study plan. This training has no credit hours where each student presents his or her training experience with a working report and certified letter of completion to the program supervisors. The students are not allowed to register for any other courses during the summer practical training. Upon the training program the student submits a detailed and comprehensive report, and evaluated by specialized committee with the recommendation submitted to the faculty Board for approval.

The training content explores the architectural practice within the Saudi context or elsewhere. In objective, the program encounters organizational and managerial responsibilities of providing professional services to the society where the program is undertaken. The program prepares students for future registration as a professional member of the Saudi Council of Engineers.

During the training program, the students are asked to;

- Deal with practical architectural problems using systematic ways of problem-solving.
- Perform any duties as assigned by the workplace supervisor.
- Gather, analyze and interpret data using a computer technology.
- To accept and train for working in a team of different disciplines.
- Use the proper presentation techniques to illustrate his or her ideas for proposed solutions.

The major intended learning outcomes of the program's field experience are;

- Develop clear drawings; write specifications to identify the appropriate components, building materials and systems for building design.

- Develop project work plan and detailed schedule of deliverables through all the design stages.
- Use of acquired techniques, skills, and modern engineering tools necessary for architecture practice.
- Illustrate the values, diverse needs, behavioral pattern, cultures, and, physical abilities and the implication of diversification on the architect's responsibilities.
- Describe the architect's skills and techniques required to work in collaboration with other disciplines in the building design, construction, and operation stages.
- Identify the responsibility of the architect to reconcile the needs of the community in terms of building codes accessibility laws and environmental regulations.

2.1.2 Curriculum:

Curriculum chart of the architecture program identifies the vertical and the horizontal distribution of the courses in matrix manipulation of more details in later sections, especially in section "II.2.2 Professional Degrees and Curriculum" of progress since NAAB Visit II comments. The chart identifies the critical-path of design studios, which spans the time schedule of 5-yrs study plan. Further details of the chart identify the co- and pre-requisites of vertical courses as well as horizontal ones in parallel. The architectural cornerstone of design courses sieves the curriculum into various paths of chronological development up to professional practice. In one path, humanities introduce the social design issues of the natural environment in historical context with theoretical debate. In another, technical issues of construction examine the design buildability in quantitative and systematic methods as well. Graphical tools of digital media, nevertheless, help the demonstration of conceptual design, in addition to the illustration of building systems. The critical path of skillful design forms the curriculum's spine that ranges from visual studies to the comprehensive system integration.

The bell-shaped distribution of the study plan over the five-year span considers minimal load to start and end with. Starting freshmen year introduces students to the university life through University Preparatory Program requirements, with visionary basic-design skills introduced at the second half. Wide-range of courses provides students with shared learning experiences by DAU and CADD staff in multidisciplinary preparatory knowledge. University requirements, however, continue to offer vertical courses at later stages of the study plan such as English. On the contrary, CADD requirements end up at the third semester where the core program overlaps and takes over. The core program peaks towards the mid study plan, while the lifted load at the final year concentrates on Graduation Project research and design studio. The graduation project is supported by professional practicing and electives of advanced architectural topics.

The detailed sorting of the courses per program requirement forms around one-fifth as University requirements compared to over one-tenth for College requirements, with the major remainder allotted to the core program including the elective courses. The high percentage of university requirements emphasizes the English studies for reading, writing and conversation. Thus, facilitates the student learning outcomes

in worldwide communications with comprehended course materials that are defined for the entire program in English. The compulsory programs of core and elective courses reach up to two-third of the program percentage. Though extensive, this is the most flexible part of the curriculum where the continuous process of benchmark revisions takes place. In the revised plan, the core program got enhanced at both program and course specification levels. While the program has been limited to minor refinements, the course level provides ground for extensive upgrading on the international standards of detailed learning outcomes.

The elective pool plays the major role of adjusting the core program development, where new course entry according to the benchmarking criteria finds way in elective choice. Students of the ARCH Program are required to study elective courses of total 12 credit hours. The students may select any of the elective courses offered by the architectural program. Meanwhile, the students have the possibility to study up to 6 credit hours of free electives, on approval by the ARCH Council. The architectural electives encompass four main fields of specialization, which are the computerized driven architectural skills, cultural diversity of the design profession at both architectural and urban scales, environmental control courses, in addition to the interior design courses. The range of electives emphasizes the program objectives and learning outcomes of enabling students at the highest level to solve design and project related problems creatively based on sound architectural principles and utilization of digital media. Overview of the study plan defines the spine of design studio courses that extends from the college requirement of shared design courses among the existing three programs of the college up to the core architectural graduation project with supportive co-requisites at each design studio level of the study plan. Meanwhile, the core architectural program intensifies theoretical courses at the early stage of the study plan with more technical and management courses towards the latter stages of the study plan, together with the practical training program in summer of the final graduation year, thus achieving the smooth transition from theoretical background to technical and practical professionalism of architecture education.

2.2. Student Performance Criteria:

The above stated professional degree and curriculum fully covers the NAAB Matrix of Student Performance Criteria with several encounters per criterion (Table 19). The criterion of communication skills is covered mainly by the university preparatory program of pedagogical and language skills, which intensifies at the first semester of the study plan and lessens thereafter in hierarchal advancement. Meanwhile, the early stage of the study plan is characterized by the College requirements of basic design and visual communication skills, which are shared among the three programs of architecture, interior design and graphic design. The core architecture program extends in vertical and horizontal distribution of the study plan along the spine of design studio courses. Each theme of the core program progresses in pre-requisite sequence with the comprehensive inter-correlations towards the final stage of the program. This is further enforced by the specialized electives during the last two years of the program, in addition to the two-month professional training program that is best suited during the summer just before the graduation year.

Table 19. NAAB Matrix of the Existing Program

A= Ability U= Understanding **Course**	**NAAB Student Performance Criteria**																																
	A.1. Communication Skills	A.2. Design Thinking Skills	A.3. Visual Communication Skills	A.4. Technical Documentation	A.5. Investigative Skills	A.6. Fundamental Design Skills	A.7. Use of Precedents	A.8. Ordering Systems Skills	A.9. Historical Traditions and Global Culture	A.10. Cultural Diversity	A.11. Applied Research	B.1. Pre-Design	B.2. Accessibility	B.3. Sustainability	B.4. Site Design	B.5. Life Safety	B.6. Comprehensive Design	B.7 Financial Considerations	B.8. Environmental Systems	B.9. Structural Systems	B.10. Building Envelope Systems	B.11. Building Service Systems Integration	B.12. Building Materials & Assemblies Integration	C.1. Collaboration	C.2. Human Behavior	C.3 Client Role in Architecture	C.4. Project Management	C.5. Practice Management	C.6. Leadership	C.7. Legal Responsibilities	C.8. Ethics and Professional Judgment	C.9. Community and Social Responsibility
LEVEL OF ACCOMPLISHMENT	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	U
DES 101 - Design Foundation 1		■	■			■		■																									
DES 102 - Descriptive Drawing 1			■																														
DES 103 - Digit. Photo & Img Proc.			■																														
PHY 101 - General Physics		■																															
MATH 101 – Mathematics I		■																															
DES 111 - Design Foundation 2		■	■			■																											
DES 112 - Descriptive Drawing 2			■																														
DES 113 - Digital Media for Design			■					■																									
ARC 201 - History of Architecture 1							■		■																								
ARC 202 - Building Construction 1			■		■																		■										
ARC 216 - Statics																				■													
ARC 211 - Architectural Design 1			■			■		■																									
ARC 212 - Graphic Communication			■					■																									
ARC 213 - History of Architecture 2							■		■																								
ARC 214 - Surveying				■											■																		
ARC 215 - Theory of Structure		■																		■													
ARC 301 - Inter. Design Studio 1			■			■	■	■																									
ARC 302 - Theory of Architecture 1							■		■																■								
ARC 303 - Building Construction 2				■																	■		■										
ARC 304 - Landscape & Site Plan.													■		■																		
ARC 305 - Mat. & Cons. Systems														■						■			■										
ARC 306 - Structural Analysis																				■													
ARC 311 - Inter. Design Studio 2			■			■	■	■						■					■														
ARC 312 - Arch. Of Arabian Region							■		■																								
ARC 313 - Theory of Architecture 2							■		■																								
ARC 314 - Sanitary & Tech Install.																						■											
ARC 315 - Conc. & Steel Cons.																				■			■										
ARC 316 - Adv. 3D Model & Anim.			■			■		■																									
ARC 401 - Comp. Design Studio 1			■		■		■		■															■									
ARC 402 - Construct. Documents 1				■																	■		■										
ARC 403 - Housing & Urban Des.										■	■				■										■								
ARC 404 - Environmental Control														■					■		■												
ARC 406 - Lighting & Acoustics																			■			■											
ARC 411 - Comp. Design Studio 2					■					■			■		■									■									■
ARC 412 - Construct. Documents 2				■														■			■	■	■										
ARC 413 - Humanities in Architecture										■															■								
ARC 414 - Principle of Urban Plan.					■				■	■			■		■										■								
ARC 415 - Soil Mec. & Foundations															■					■													
ARC 417 - Architectural Program												■														■	■	■	■	■				
ARC 501 - Adv. Design Studio							■				■		■			■	■			■		■											
ARC 502 - Grad. Project Research					■					■	■	■														■							■
ARC 511 - Graduation Project										■	■				■	■	■					■											
ARC 512 - Professional Practice																		■								■	■	■	■	■	■	■	■

Based on the developed Professional Degree and Curriculum with the Student Performance Criteria**,** the architectural program continues to serve the community as evident in the following range of activities;

Most recent activities, after the NAAB 2016 visit:

1. Participation in the Youth Urban Innovation Exhibitions and Workshops in Riyadh, Arab Urban Development Institute, 2016-2017 (with the AWARD for CADD/ARC). In this event, selected projects of Students Najla Alabbad, Reem Shawabke and Fatimah Baufersaoui from the Architecture Department at Dar AL Uloom University were displayed for their respective projects on Smart District Development on the Waterfront of Dammam and Urban housing Project in Riyadh, where the Green infrastructure and sustainable strategies for the neighborhood design were highly appreciated by the participants. A final speech about "Strategies for CV development in Architecture toward Smart City Design" was held by the Chair of the Architecture Department, Dr. Anna Laura Petrucci, presenting the innovative teaching strategies at Dar Al Uloom, as integrated approach to the Design Studio Project.

2. The Architecture program participated, through female and male students in the competition that was organized by the Saudi Ministry of Health, in Health Care Facilities - One Day Surgery Hospital, 2016, with the AWARD for CADD/ARC students. In this competition, the Ministry of Health jointly with King Saud University required the healthcare design of a One Day Surgery Hospital in Riyadh, with big success for architectural students of DAU. Among the several participants from the Kingdom, only 3 universities were selected by the Jury to be admitted to the final exhibition, which was inaugurated by the Ministry of Health. Up to 6 submitted projects of students from the Design Studio ARC501 of DAU have been selected by the jury for the final exhibition, among them 5 projects received the final award for the students Riham Alsaad, Shorouq Naser, Fatemah Aldahan, Hussein Khosara and Talal Alshemri of the female and male sections.

3. Participation in the Exhibition of the Ministry of Rural Affairs, The First Conference of Environment and Urban with UN HABITAT, Riyadh, 2016. The Architecture Department was an active member in the Youth Urban Innovation Workshop, 2016-17 Riyadh, which had been organized by the Arab Urban Development Institute under the patronage of the UN Habitat. Faculty members and students were involved in approaching one of the most complex and elite district in Riyadh, which is located next to the Kingdom Tower of Riyadh, with the intent of transforming it into an Innovative Smart District. Selected students from King Saud University, Prince Sultan university and Dar Al Uloom University were attending the workshop and delivering their projects. The visions by the DAU students were highly appreciated and the project by the female students Riham Alsaad, Shorouq Naser and Fatemah Aldahan, who worked together as a team in collaboration with the IT students Rana AlOtaibi and Noura Alhashmey of King Saud University, were awarded the First Prize. The projects were exhibited at the First Saudi Smart Cities Conference, Ministry of Municipal and Rural Affair, Riyadh 2017 with the ceremony of award held at the Arab Urban Development Institute in Riyadh.

4. Participation of students with their works in the workshop of Zaha Hadid Office, which was held in King Abdullah Research Center, designed by zaha Hadid, in Riyadh. The workshop was organized jointly between the architectural programs in DAU and Prince Sultan University in Riyadh.

5. The architectural program organized two lectures given by Zaha Hadid's team members, about all of Zaha Hadid's sketch works. The two lectures were held in the main theatre at DAU and which absorbs 1500 persons. Students and faculty members attended the lectures from DAU and other architecture programs from other universities in Riyadh. The last lecture was given by the architecturally specialized journalist, Joseph Giovanni, demonstrated the influence of Zaha Hadid's works on the modern architecture.

6. Participation in the National Heritage Day, conferences and exhibitions, 2015-2017 (the CADD/ARC submission was AWARDED the 3rd prize for the national student competition held at the national University of Qassim in 2015). Also the DAU's Architecture Department celebrated the National Day on the 18th of April 2017, through the participation in the two-day workshops organized by Saudi Commission for Tourism and Antiquities together with the Prince Charles Royal Commission for Heritage. Students and faculty members were involved in the seminars about the rehabilitation techniques and specialized survey methods in heritage, with special focus on the Islamic Pattern.

7. NAAB Team Room Design for the Third Visit, students were involved in a competition for designing a Team Room for the NAAB Visit III.

8. The students in the architecture program have participated in the heritage competitions that were held at Prince Sultan University, in the years, 2016 and 2017.

9. Charity day for 'Sanad' foundation at DAU University 2016-17, which is a funding campaign for children with cancer. Students and faculty members of the architectural program's female section participated through the colorful and happy gathering, while offering food and souvenir from each country of the world. Meanwhile, the event has chosen Lebanon to demonstrate its richness in nature and cultural values. The collected offers were donated through the DAU Committee to the SANAD Foundation, which was an excellent opportunity for the female students to combine creativity and social commitment, thus improving their own awareness as active members of the community.

10. Site visits of CADD/ARC students to various cultural sites in Riyadh, where students are introduced to the reality of the Architectural profession and the related Industry. In 2016-17 visits to heritage sites included Al Daraya old Mosques and the Riyadh National Museum for students in level-4 of Heritage Design Studio. Also students in level-5 of comprehensive design project for high-rise buildings had visited the new development of King Abdullah Financial District in Riyadh, which represents the state-of-the-art technology in the building industry. Several other visits were arranged for students to conduct site surveys and analysis, including the sites under construction for real detailing of components and construction methods under the supervision of construction and

engineering faculty members of the program.

11. Participation in the International Energy Forum, IEF, Symposium on Energy outlooks in 2016 & Celebration of Energy Day in 2017.

12. Participation in the UNESCO NGO Forum 2017 in Riyadh, KSA (National Forum about the Role of universities against terrorism) as part of the mission of DAU and of Architecture Department to keep high awareness on Saudi Community. In this event, selected students and faculty members were attending the UNESCO NGO Forum 2017 in Riyadh, which offered the opportunity to get inspired by the most influential people worldwide in NGO and non-profitable social services.

13. Participation in the Ministry of Education's workshop on designing educational facilities, Riyadh, 2016, where selected students from the Architecture Department had attended the event and reported the most recent trends including the updated rules and regulations of designing educational facilities. The acquired knowledge on current trends I n designing educational facilities were addressed to all the students of the department, especially for level-3 students working on Primary School Design.

14. Project submission of CADD/ARC students in the 'Aramco' competition of Sustainable Envelope, 2017. Since the Environment and Sustainability are the mainstreaming of the Century, the Architecture Department has been constantly targeting the latest standards worldwide. The students in level-3 design studio who focus on environmental approach in architecture, together with the students in the environmental control course, were attending along with the faculty members the International Energy Forum, IEF in Riyadh and visiting the SABIC Home of innovation, thus discovering the last research on energy conservation and motion sensor technologies. As an extracurricular activity, some of the senior students competed in the ARAMCO Competition about innovative envelope for housing project, where they proposed innovative solutions for the building envelope and the self-shading systems, in addition to the sustainable pre-cast building construction techniques.

15. The Architecture Program in 2016-2017 Hosted the bi-weekly lectures series entitled "Riyadh Talks" In the theatre of DAU. Students and faculty staff from different universities in Riyadh were invited to attend.

16. The Architecture Program in 2017-2017 organizes bi-weekly lectures given by invited distinctive academicians and professionals of different topics to share their up-to-date experiences. The topics include computer aided design and management; urban design and planning; green buildings and environmental sustainability; Saudi heritage and design strategies. The Bi-weekly lectures are being held in the shared hall of CADD, each two Tuesdays from 12:00 to 13:00 where the time and place is convenient to all participants.

17. Hosting the series of workshops entitled "Zawaya" (meaning angles) by the Student Club of CADD/ARC at DAU, 2016-2017. Zawaya Student Club at

Architecture Department is organizing a series of workshop, offering the opportunity for students to improve their skills in computer graphic and design. Workshops are free of charge and students can register through the Office of Mrs Noha Qassab, teaching coordinator for students' activities or through Bedaya Corner of CADD. Special thanks to our very talented Teaching Assistants, Eng. Najla Alabbad, Eng. Marwah Bashattha, Eng. Bareera Iqbal, Eng. Bassma Alsudairi, who volunteer in sharing their knowledge with the students in offering the best Tips and Tricks for an excellent design presentation.

18. Research contribution of active CADD/ARC faculty members in various international conferences, with long list of recent paper publications.

19. Male and female CADD/ARC faculty members were invited to attend as external jurors for the graduation projects in the top national King Saud University and other Saudi universities as well.

Previous activities, before the NAAB 2016 visit:

20. Hosting the anniversary of the "World Heritage Day" in DAU, 2013.

21. Establishing an alumni and employer association.

22. Celebrating the prize of urban heritage achievement with the personal of the year, His Royal Highness King Salman bin Abdulaziz Al Saud, 2013.

23. Striking MoUs with each of the Saudi Commission for Tourism and Antiquities, Omran Cooperative Society, Middle Eastern Club for Photographers and the Saudi Council of Engineers.

24. Participating by the students' distinctive projects in the Economic House exhibition in Riyadh.

25. Establishing the Consultation Unit of CADD for design projects , research and training courses. The program has designed many projects such as the extension development for the architecture program, the university hospital and the college of Dentistry.

26. Participating in the national competition for Samhan District conservation project in Alderaiah old town in Riyadh.

27. Participating in the National Urban Heritage event held in 10-12 December, 2012 in Dammam.

28. Participating in the sixth gathering of Gulf Engineers and Architects held in Jeddah.

29. Organizing a series of public lectures in DAU by invited professionals.

30. Organizing workshops for students in architecture programs from different universities in the kingdom.

2.3. Public Information:

Specific information on the NAAB Conditions and Procedures for Substantial Equivalency of DAU's Program of Architecture is made public. The set of program documents are available in printed and digital copies with easy access at several locations such as the main library of the program, the program's administrators including the Dean's office, and the program's developed website of direct downloading by any public visitor for the following:

1- 2012 Conditions for Substantial Equivalency (Effective April 1, 2012). The National Architectural Accrediting Board, Inc. (NAAB), USA.

2- 2013 Procedures for Substantial Equivalency, The National Architectural Accrediting Board, Inc. (NAAB), USA.

3- Architectural Program Report (NAAB Visit Two for Substantial Equivalency), Dar Al Uloom University (DAU), June 2015.

4- The Visiting Team Report (NAAB Visit Two for Substantial Equivalency of the Program of Architecture at DAU)

5- Architectural Program Report (NAAB Visit Three for Substantial Equivalency), Dar Al Uloom University (DAU), May 2018.

The administrators of the program hold regular meetings with students and faculty members and the DAU top administration as well to clarify the process of conducting the NAAB Substantial Equivalency of the program. Public inquires on the same process are replied at once with clear information about the program's status from the substantial equivalency in process. The program's faculty members themselves are required to visit these documents and integrate them in the teaching process with students, especially for the not met criteria of the NABB Visit Two. The program exploits each and every event in or outside of DAU to introduce to the public and also professionals about the framework of NAAB SE in progress. Transparency for the public access to the specific APRs and VTRs on the DAU's program without reservation is meant to build mutual respect and understanding with the local and the international community in common.

Parallel to the open access to documents, the information on career development is maintained among all program enrollers being they students, faculty members or administrators. The College organizes 'Career Day' with the exhibition of students' project works, where the professionals and owners of consultancy firms are invited to give speech and meet with the students while visiting their exhibited projects. In this occasion, the students can get opportunities to contact the professionals and know about the jobs available in the market and the needed market demands. Meanwhile, female and male students of the program during the final two years of the study plan are largely oriented towards the professional practice with the objective of not only gaining information on the career development, but also participating professionally. For example, the Training Committee advices the students on the available opportunities of quality experience in the local market to start building their career before graduation. Also the Alumni Committee obtains regular feedback from graduates with the necessary program improvements to meet

the market's needs. In another front, the ever increasing MoUs of the program with the national and international organizations, such as the Saudi Commission for Tourism and Antiquities (SCTA), afford tremendous opportunities for all students to obtain information on career development with the participation in practical and academic programs. Similarly, incentives to faculty staff with information on career development opportunities are announced once available, such as for international competitions, conferences and training programs.

In addition, the regular 'Biweekly Program' of the architectural program in DAU invites the distinctive professionals practicing in the Kingdom to give specialized public lectures and illustrate their experiences of project works to all students. Through this extended opportunity, the students acquire more knowledge about the practical field with the direct contact of top professionals, thus building the bridge between the program and the market's needs for students to choose their specialized career of interest. In one occasion, the invited professional on BIM software explored the program's efficiency of conducting the project phases from the conceptual stage up to the construction realization, upon which a bridge has been built for the invited professional to conduct specialized workshop on Revit program for students of both genders in DAU, while also offering the opportunity for the interested students to get training in the visitor's consultancy office in Riyadh. Meanwhile, the 'Board of Consultants' of CADD comprises the distinctive academicians and practitioners in the market who meet monthly to follow up on the development of CADD programs in response to the market's needs with the preparation of the College's strategic plan in progress. This would immensely benefit the career development of all students to be absorbed by the market in continuous process for both male and female graduates in common.

Besides, the Department of Public Relations (DPR) in DAU is a key player in the university links with the community. The international and public events of the architecture program are organized in coordination with the DPR, which includes the formal protocol and audiovisual preparation according to the type of event with the full archival documentation in chronology of activities. One major example is the conducted NAAB first visit to DAU, with published articles in Saudi public newspapers and mass-media communications. The same department takes responsibility in collaboration with the university IT Department for the updating of the university website (http://dau.edu.sa/en) to post public announcements and presentations of scheduled events. The IT university portal extends the public information at all levels from the very public events to the most concerned information on each department level of the university. Surfing the web portal of DAU includes the information on university structure down to individual departments with all related materials. Controlled access of information is filtered according to the user permission, such as the Learning Management System (LMS) or Student Information System (SIS) services among students, instructors and administrators to download or upload and monitor the academic activities over the website. This allows the information and processing of all academic procedures to take place electronically in systematic structure.

Part Three: Progress Since NAAB Visit Two, 2016 (Responses to Conditions

Not Met)

Conditions not met in the 2016 visiting team report consists of;

I.1.2 Learning Culture and Social Equity (studio culture)

I.3.1 Statistical Reports (program student characteristics, and program faculty characteristics)

I.4 Policy Review (personnel policies, studio-based floor areas per student, supportive floor areas per faculty member, admission requirements, advising policies, policies of digital media in the architecture curriculum, academic integrity for students such as cheating and plagiarism, policies on library and information resource collection development)

II.1.1 Student Performance Criteria (nine 'not met' criteria)

A.4. Technical Documentation

B.2. Accessibility

B.3. Sustainability

B.4. Site Design

B.6. Comprehensive Design

B.7. Financial Considerations

B.11. Building Service Systems Integration

C.1. Collaboration

C.5. Practice Management

II.2.2 Professional Degrees and Curriculum (Electives)

II.4.1 Public Information (website language)

II.4.2 Access to NAAB Conditions and Procedures

II.4.3 Access to Career Development Information

II.4.4 Public Access to APRs and VTRs

Progress since the 2016 visit:

I.1.2 Learning Culture and Social Equity

Comment from 2016 NAAB visiting team report:

"The APR includes a description of the "studio culture," and the program has created and posted a studio culture policy throughout the building. The genesis of the policy

is not clear, and the students with whom the team spoke were unfamiliar with the term or its meaning."

Progress since 2016 visit:

Regarding the NAAB comment about the studio culture, the program has emphasized on this issue, where the Department Chair Dr. Anna Laura and Prof. Elsayed Amer have given a series of lectures with all the students, talking about the ethics, principles, conditions, and rules of the studio culture. They gave lectures about the students-and-students relationships, student-and-faculty relationships and the role of each of those in the studio. Also the program posted the following studio culture outlines in all the design studios and spaces in the department.

The studio culture was based on the following considerations:

1. The design studio is based on the fact that instructors are not suppose to impose ideas on the students, but developing their way of thinking to help the students to form their architectural personality.
2. The NAAB Committee set by the program, conduted a regular review of all studio designs, at least twice during the semester to make sure that the studio culture policy is well applied inside the studio, as one of the important objectives of the committee, in addition to applying NAAB SPCs.
3. The students are required to respect the work environmnet inside the studio and all facilities avaiable such as model making and digital laboratories.
4. The students must demonstrate their visual and verbal communication skills throughout the design progress with critical thinking and group discussions with professional attitude.
5. The students must demonstrate interpersonal skills to work with other professions such as interior design for intedesciplinary design works.
6. The students must respect the design deliverables in qualitative and quantitative terms with consistency of submission formats.
7. Any plagiarism of design works will be disregarded with student warning of academic dismissal process according to the university regulations.
8. The students are encouraged to attend the regular public lectures by professional academicians and practitioners as scheduled by the program for intellectual development of design issues and computing skills.
9. Behavioral aspects of students must be fully respected for proper descipline and set up atmosphere of the studio environment.

I.3.1 Statistical Reports

Comment from 2016 NAAB visiting team report:

"The APR provides some, but not all, of the necessary statistical reports. Yet to be included are:

- *Program student characteristics.*
  - □ *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 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"*

Progress since 2016 visit:

In this APR of NAAB Visit Three, statistical tables on student and faculty characteristics have been included in Section III of Part I. The tables demonstrate the characteristics pointed out by the NAAB Team of Visit Two.

I.4 Policy Review

Comment from 2016 NAAB visiting team report:

"The visiting team did not find the following documents in the team room or in the APR for review:

 Personnel policies, including:

o Position descriptions for all faculty and staff

o Rank, tenure, and promotion

o Reappointment

o Social equity or diversity, as appropriate

o Faculty development, including, but not limited to, research, scholarship, creative activity, or sabbatical

 Square meters per student for space designated for studio-based learning

 Square meters per faculty member for space designated for support of all faculty activities and responsibilities

 Admissions requirements

 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

 Policies on use and integration of digital media in the architecture curriculum

 Policies on academic integrity for students (e.g., cheating and plagiarism)

 Policies on library and information resource collection development"

Progress since 2016 visit:

The policy review on personnel and square meters per student and faculty members are included above in the Faculty Credentials in Section III of Part I. Further policies on admissions, advising, use and integration of digital media in the architecture curriculum, academic integrity for students, library and information resource collection development are detailed as follows:

 Admissions requirements for Students

DAU Admission Requirements are specified as follows:

Basic requirements:

- Must have a General Certificate of Secondary Education or its equivalent from inside or outside the Kingdom
- Must be of acceptable conduct
- Must be medically fit
- Must have a "no objection" letter from his / her place of work (if a government employee)

To apply for admission, the student can fill the online admission form on DAU's website and then submit the following documents before the admission deadline:

Bachelor:

Original high school diploma

Certificate of good conduct from your secondary school, or equivalent
Certificate of general merit test from the Ministry of Higher Education

Passing DAU admission test

'No objection' letter from place of work (for government employees only)

Copy of your identification card, passport, or Iqama (residence-ship)

Four passport size photos

Nonrefundable admission fee

Master:

The original bachelors' diploma and two attested copies of the same

The original transcript and two attested copies of the same

Copy of identification card, passport, or Iqama (residence-ship)

Three passport size photos

Certificate of good conduct from your university

Nonrefundable admission fee

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

In addition to the DAU's admission requirements, some students transfer to the ARC program of DAU from other programs or universities where they pass through a rigorous process of equivalency for acceptance and enrollment after satisfying the general requirements of admission in DAU. This process is managed by the DAU's Deanship of Admission, Registration, and Student Affairs to pass through the University Preparatory Program (UPP) program of DAU and the core program (in this case the ARC of CADD). Upon the reply from both the UPP and ARC departments, the equivalency is decided for the student to start the program. The SPCs of non-substantially equivalent programs that do not meet its equivalency in quantitative and qualitative terms in DAU will normally be rejected in process.

Policies on use and integration of digital media in the architecture curriculum

The course instructor specifies the policies on the use and integration of digital media in the architecture curriculum per course. In general, the students are required to produce manual drawings for their projects up to the second design studio course (ARC 301). Afterwards, the students have the choice to present their projects using the digital media for presentation.

Policies on academic integrity for students (e.g., cheating and plagiarism)

The general policies on academic integrity for students specifies the following:

General Policies

Learning Management System (LMS)

It is expected that all students visit the course LMS page and check their email daily. The students and instructors can log on to LMS at http://my.dau.edu.sa/lms.

The LMS page for the course will include helpful resources, lesson topics, assignments, and will be the primary way to submit assignments for this course.

Attendance Policy:

As per DAU regulations, students must attend a minimum of 75% of class to be permitted to enter the final exam. During the first 10 minutes of class student is registered as attended, during the after 20 minutes student is registered as late (2 late = 1 absence), after 30 minutes of class late students are accepted to attend class but registered as absent.

It's essential that you attend all classes in your course. It's important to be available throughout the class time. If you are absent, you need to present a justifiable excuse to be granted an Excused status. 3 unexcused absences lead to DN status.

Tutorial Rules:

- Late homework is not a good way to start your career, don't count on its being accepted.
- Quizzes are set only once and we regret having any makeups.
- Cell phones must be turned off during class. No form of texting is allowed during class as this distracts you, your colleagues and even your tutor.
- Skipping class is not advised, you are always required to join your classes and share into the activities.

Students with Special Needs

It is preferred that students with special needs should consult with their course tutor at the beginning of the new semester to prepare any special arrangements deemed important.

Plagiarism

There are lots of resources, particularly on the World-Wide Web which the students are expected to explore and use. One of the reasons the Web has grown so quickly is that anyone can publish anything on it. This raises a number of problems, particularly with the issue of copyright. It is very easy to find information, images, audio and video files on the Web. You can then easily save them and incorporate them into your own material. This ease of copying means people often make the mistake of assuming that everything on the Web is freely available. This is not the case and you should to be aware of what is acceptable and not acceptable in this approach.

As a general guide, we expect you as students to use the Web as a resource to find information, and to work together to discuss your findings and develop your understanding of issues. What we do not expect is for you to directly copy from the work of others – this is known as plagiarism; it is not acceptable, and will be penalized. You will find that there are many pages that can be found providing what may seem at first to be ready made answers to your assignments. Teachers are

also aware of this, and there are tools which allow us to search for phrases from your assignment to see if they occur in other documents published on the Web.

You need to rewrite the material that you find in your own words in order to demonstrate your own understanding. This does not mean that you cannot quote from others to make a point, but where you have used the words or images of others you must acknowledge your sources.

 Policies on library and information resource collection development"

The library of CADD keeps expanding with the increased collection of books from around 2000 during the last NAAB visit to more than 5000 at present. The collection of scientific periodicals and professional magazines are given equal emphases to be obtained for the library. All textbooks specified in the description of courses are made sure to have at least two copies of each in the library for male and female sections. The books are selected according to their quality of being classical to the field of study, renowned publishers and by author with the priority of most recent year of publication. The management of the library has been developed to search by catalogue or through the digital database. The library of CADD affords the opportunity for male and female students to borrow books with easiness. The possession of plural number per book has made this possible, especially for the essential textbooks specified in the program's courses. The borrowing period ranges from three-days for books of high demand on the waiting list and can extend to one week otherwise.

Also, the library administration is extending its services to include the system of inter-loan with other universities such as King Saud University, where students can swap the loaning from one library to the other. Besides, the digital facilities within the library provide the easy access to an increasing number of E-books and subscription to international publishing and scientific websites where students can benefit most from the up-to-date publications. The prospects of expanding the library's network of inter-loans and digital memberships on the international level can serve the research activities for the program's future graduate levels in process. Besides, the library holds a copy of public documents on the program, such as the APRs and VTRs with the NAAB procedures and conditions of the Substantial Equivalency, where any visitor from DAU or the public can have access to these documents without restriction.

I.1.1 Student Performance Criteria (9 out of 32)

To respond successfully to the ***not met*** criteria that were raised by the NAAB Team during the 2016 visit, the Architectural Program has taken a number of actions to make sure that all the criteria are perfectly covered;

1- The Dean of CADD and the Chair of the Architecture Program formed a committee from faculty members, headed by professor Elsayed Amer who has long experience with NAAB, to supervise and follow up the preparation for Visit Three. Professor Amer has been recruited by the university as an academic consultant and to work specifically for the process of NAAB substantial

Equivalency. He has developed an action plan for the visit preparation and which can lead to a successful visit.

2- Professor Amer has given a series of lectures to faculty members and students, explaining NAAB conditions, benefits, process, SPCs, studio culture and all what is needed for a successful preparation for visit three.

3- NAAB committee was divided to sub-committees, each was headed by one of the faculty members, to cover certain activity in the action plan that has been initiated and developed for the visit.

4- Each design studio has organized monthly internal jury attended by the NAAB committee to make sure that all the design studios are showing evidences with their assigned SPCs.

5- To make sure that the SPCs are covered, NAAB committee has posted the SPCs that have to be covered by each design course in its studio, in order to be recognized by both teachers and students.

The following paragraphs show the responses for the NOT met Criteria:

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.**

Comment from 2016 NAAB visiting team report:

"The NAAB Matrix that the visiting team reviewed did not reference specific courses as meeting this criterion. In response, the visiting team sought examples of technical documentation in ARC 402-Construction Documents 1, ARC 402-Construction Documents 2, and the work of the design studios. While the technical drawings of a mosque prepared for ARC 402-Construction Documents 2 in 2014 indicated that care and attention had gone into the preparation of a set of working drawings and the studio work contained compelling graphic representations of design, the visiting team found no examples of the preparation of an outline specification by DAU students. Further evidence indicated that not all DAU students had prepared models, and those that were exhibited in the team room did not demonstrate sufficient investigation of the assembly of material concepts to satisfy this criterion. In addition, the visiting team noted that the first lecture of the fifth-year ARC 511-Graduation Project is a basic introduction to the use of models entitled "Making Models," a topic more appropriately covered far earlier in the curriculum"

Progress since 2016 visit:

Since the previous visit strong attention has been given to cover this criterion through the courses, ARC 402, ARC 412, ARC 502, ARC 501 & ARC 417. Improvements

have taken place in the courses descriptions and specifications to cover the criteria of technical documentation. Also the program has recruited a new faculty member, Dr. Yaser Fouda, an associate professor who has a good experience in teaching some of the courses that can cover the criterion. Regarding the models, the students in different design studios are using the model-making lab, have stressed on an attention on making models.

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.**

Comment from 2016 NAAB visiting team report:

"The program indicated that evidence of this ability could be found in ARC 304-Landscape and Site Planning, 403-Housing and Urban Development, 411-Comprehensive Design Studio 2, and 414-Principles of Urban Planning. Since student performance at an ability level is required, the visiting team primarily reviewed design course evidence. The evidence was not yet consistent enough in the Comprehensive Design Studios and Graduation Project to assess this criterion as met."

Progress since the 2016 visit:

Since the previous visit this criterion has been given an important emphases and relevant courses files are now modified to include special topics in accessibility. Since this criterion is on the level of ability, a special attention was given to cover it in the design studios in the higher levels with concentration on the higher design studios from 411 to the graduation project, ARC 511, therefore the program has assigned the most academic and practical experienced professors to teach this course, Professor El Sayed Amer, and Associate Prof. Anna Laura Petrucci. This criterion is also evidenced in the courses ARC411, ARC501 & ARC304.

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.**

Comment from 2016 NAAB visiting team report:

"The program indicated that the criterion is met in ARCH 305-Mat. & Const. Assemblies, ARC 311-Intermediate Design Studio 2, ARC 404-Environmental Control, and 511-Graduation Project. ARCH 404 adequately introduces the subject, but the robust evidence of the ability as evidenced in the design projects is inconsistent and often weak. The visiting team assesses this ability as Not Met"

Progress since the 2016 visit:

The objectives set by the program Chair Dr. Anna Laura Petrucci enforces the horizontal and vertical integration of the study plan to reflect the core architectural courses in the design-based studio projects including the environmental control aspects. This crucial strategy is now evidenced in all sophomore and senior-level projects where the environmental control represents one of the essential tools of architectural project conception and evaluation. Meanwhile, the advanced core program stresses this requirement through the minor specialty of Environmental Control with intensive courses on the topic, where students can select for further conceptual development of LEED certification on the professional level.

***B.4. Site Design*: *Ability* to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.**

***Visit Two Team Assessment (2016)*:** *The program indicated that the SPC is met in 11 courses. The visiting team found evidence of significant understanding of soil mechanics in ARC 415-Soil Mechanics & Foundations, of site design principles and analysis in ARC 304-Landscape and Site Planning, and of urban/site design principles in ARC 403-Housing & Urban Design. However, the team found that, within the design studio projects, evidence of an ability to apply an understanding of and maximize the opportunities of site characteristics was typically weak, as evidenced by upper-level projects without topography, vegetation, sidewalks, workable parking, or vehicular circulation.*

Progress since the 2016 visit;

Since the previous visit, the Program Chair and the Dean of the College stressed on the importance that all the program's courses should show evidences to all the SPCs. In addition to ARC 415- Soil Mechanics & Foundations, ARC 304-Landscape and Site Planning, and of urban/site design principles in ARC 403-Housing & Urban Design, an attention was given to the design courses to stress on the site design principles and analysis. The teachers of the Design Courses have highly considered the application of this criterion and developed the content of their courses to emphasize on the site design and planning characteristics of the projects.

***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.2. Accessibility

B.3. Sustainability

B.4. Site Design

B.5. Life Safety

B.7. Environmental Systems

B.9.Structural Systems

Visit Two Team Assessment (2016): *The visiting team reviewed student work from the fourth-year design studios and the graduation project indicating that many architecture students at DAU are able to comprehend the technical aspects of design, systems, and material selection and to integrate them as required by this criterion. The team did not, however, find this successful integration to be present in all the student work, and some projects exhibited noticeable omissions of required material. Further, most of the projects reviewed failed to demonstrate that site-planning principles were integrated in any meaningful fashion into designs as required by this criterion.*

Progress since the 2016 visit;

It seems from the NAAB VTR that the projects produced by the students did not give strong evidence to the ***Site Design (B.4)***. Since the previous visit, this criterion was given a high attention in the distribution of the design teachers for the design studios. The program has, therefore, assigned the most experienced professors in the program, to teach the higher levels of design courses, 501 and 511 as they both should be more stressing on the Comprehensive Design.

The program has also invited practitioners as par timers from the market who can teach the systems from the practitioners' point of view. An attention has also been given by all the design teachers to stress on the site planning principles and that's why we recruited two faculty members, Dr Yaser Fouda and Dr Hassan Kari to teach ARC401 and ARC411 and put more emphasis on the site planning and urban design issues in the fourth year design studios.

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.**

Visit Two Team Assessment (2016): *Construction cost estimating is addressed in a lecture in ARC 512-Professional Practice. In addition, students at DAU are*

required to summarize financial considerations as part of their research work in ARC 502-Graduation Project Research. However, examples of this work reviewed by the visiting team were too superficial to indicate that all of the architecture students had gained this requisite understanding. Further, there was no evidence of other aspects of the financial considerations of architecture beyond cost estimating (such as life-cycle costs).

Progress since the 2016 visit;

Since the previous visit, the teachers were told to take care of this criterion. Courses ARC 502; Graduation Project Research and ARC 512; Professional Practice and 412; Construction Documents II put more stress on the life - cycle cost of the project. Additionally, ARC 417 Architectural Programming of major emphasis on project management was assigned to cover this criterion. The content of these courses were developed to further strengthen the students understanding of the importance of the construction cost control of the projects.

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.**

Visit Two Team Assessment (2016): *The NAAB Matrix in the DAU APR indicated that evidence for this criterion was met in the student work prepared for ARC 314-Sanitary & Technical Installations, ARC 406-Lighting & Acoustics, and the advanced design studios. In addition, the visiting team found related evidence in ARC 404-Environmental Controls. The team observed that several aspects of this criterion were extensively treated. These included plumbing considerations and acoustics and lighting, with acoustics and lighting being addressed in a lecture in ARC 404 and in ARC 406. Studio design work indicated an understanding of vertical transportation. While this evidence indicates a commitment to teaching building systems integration, the visiting team found no evidence of an understanding of electrical systems (beyond lighting) and fire protection systems, so this criterion was judged as* ***Not Met****.*

Progress since the 2016 visit;

Since the previous visit, in addition to the courses, *ARC 314-Sanitary & Technical Installations, ARC 404-Environmental Controls*, *ARC 406-Lighting & Acoustics,* the Advanced Design Studio, 501 and the Graduation Project, 511, stressed on this criterion. To give more attention to this criterion, the program appointed two faculty members, Dr. Ahmad Alrwaished as a full time faculty and Dr. Ibrahim Al Saudi, as a part time faculty. Both are highly experienced in building service systems integration, they are commissioned to participate in teaching Arc 501 and Arc 511.

C.1. Collaboration: ***Ability*** **to work in collaboration with others and in multi-disciplinary teams to successfully complete design projects.**

Visit Two Team Assessment (2016): *The program indicated that evidence of this ability could be found in ARC 213-History of Architecture, 401-Comp. Design Studio 1, and 411-Comprehensive Design Studio 2. Evidence of collaboration with others is found in these design courses, consistently during research and analysis, and often during design. However, evidence of "multi-disciplinary teams to successfully complete design projects" is not yet evident.*

Progress since the 2016 visit;

In the previous visit, the NAAB team suggested that the Architecture Program could work together with the other programs, under the umbrella of the college of CADD, to produce *a multi-disciplinary team* for the successful completion of a design project. Accordingly, a team of faculty members was formed from both the architecture program and the interior design program to work together in the ARC 401- Comprehensive Design Studio to cover this criterion. The teaching team from architecture and interior supervised the architecture students of ARC 401 who have worked together with the interior design students and produced a multi- disciplinary project.

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.**

Visit Two Team Assessment (2016): *The program indicated evidence of understanding could be found in ARC 512-Professional Practice. While ARC 512-Professional Practice is a robust course, the visiting team found this particular understanding is not evident in the course outcomes*

Progress since the 2016 visit;

Since the previous visit, the program has given an importance to this criterion by developing the content of ARC 512, Professional Practice to make sure that this criterion has been evidenced in the course file and the students' output. ARC 417, Architectural Program course was also assigned to cover this criterion. The content of the two courses were developed to cover the financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

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.*

Visit Two Team Assessment (2016): The degree program is as follows: 34% general studies, (consisting of 21% general education [preparatory] courses and 13% college requirement courses) 61% professional studies 5% electives. With only 5% of the courses in electives, students may not be able to complete minors or develop areas of concentration, inside or outside the program.

Progress since the 2016 visit;

In the initiation of the architectural program, certain considerations have been set out for the program, which made the program to have 172 credit hours. These considerations can be outlined in the following;

1- The program was mainly taken from the architectural programs in the United States with some additions to match the local conditions and traditional understanding of the Saudi Society and to satisfy the demands of the Saudi markets.

2- As benchmarking, the DAU program used the top American NAAB accredited programs and regional well known programs to design and initiate the architectural program.

3- In addition to the Saudi Students, the architectural program at DAU, accepts students from the other nationalities, mainly from the Arab countries. Therefore, in the initial design of the curriculum, it was necessary to consider the courses that are being taught in their home programs. This will help them to be accepted for registering in their home syndicates. This is one of the big advantages of the DAU architectural program, being not only to serve the Saudi students but also

non-Saudi students.

However, after the NAAB team 2016 visit, the program formed a committee headed by Prof. Elsayed Amer to revisit the curriculum, putting in mind the above considerations which have been considered in the initiation of the program.

To modify the program, the committee had several meetings as follows;

1- The committee had meetings with the students and listened to their opinions about the program to identify if they are overloaded with the teaching loads so that they are afraid not to graduate on time. The students also mentioned that the too much credit hours may not help them to graduate with highly targeted grades as professional architects who can successfully practice architecture in the market.

2- The committee had meetings with faculty members and listened to their opinions on the program, based on their teaching experiences.

3- The committee had meetings with the alumni and listened to their opinions about the program, and if they have taken courses that are not needed in the market, or courses that the program may be missing, where the graduates should have taken to satisfy the market's needs.

4- The committee had meetings with the practitioners that are practicing architecture in the Saudi market to tell their opinion in the architecture program and to what extent it is matching the market's demands.

5- The committee has also evaluated the statistics of the students that have been graduated in the minimum time in relation to the enrolled students in the Architecture program.

Based on the above considerations, the program was proposed to be modified from 172 to 166 credit hours and the electives were increased from four to six courses (12 credit hours) which represent 7% of the program's courses; develop the program with a considerable load to reduce the pressure on the students and help them to graduate on time; allow the non-Saudi students to practice architecture in their home countries as licensed architects; increase the number of students that desire to join the DAU architecture program, and fulfilling the NAAB matrix in optimized student performance criteria, thus supporting the program to achieve its mission as a leading architectural school in the region (Tables 20-33). This program modification has been discussed and approved by the Program Council and proceeded to the College Council, which approved it and forwarded to the University Rector for final approval by the University Council.

Table 20. Comparison with Five International Recognized Arch. Programs:

SN	University Name	General Education Requirements	College & Core Requirements	Electives (maio	CO OP	Total cr

		Personal Skills	Social Sciences & PE	Digital Media	Math & Sciences	English	Calculus & Physics	Design Studio	History, Theory, Practice, Urban	Structure & Control Systems & Construction	Visual Communication			
1	**Dar Al Uloom University (the revised program after benchmark)** (Arch program established since 2009 with the first batch graduated in 2014)	**5**	**9**	**1**	**4**	**16**	**7**	**49**	**20**	**34**	**9**	**12 (6,6)**		**166**
	Dar Al Uloom University (the currently existing program)	**5**	**9**	**1**	**4**	**16**	**4**	**47**	**27**	**39**	**8**	**12 (6,6)**	**0**	**172**
2	**King Saud University** (One of the top national universities, only accredited program by NAAB in the Kingdom and second in Arab universities)	5	14	3	3	16	11	46	16	36	6	8 (4,4)	0	170
3	**Cornell University** (ranked 2nd in 2014 and 1stst in 2015-17 in the top-ten of USA Architecture undergraduate Programs)	6						62	15	18	6	69		176
4	**California Polytechnic State University** (ranked 1st in 2014 and 2nd in 2017in the top-ten of USA Architecture undergraduate Programs) (quarter system)	34.7					10.6	42	26	18	8	10.7 (10.7,0)		150
5	**Southern California Institute of Architecture** (ranked 9th in 2014 and 10th in the top-ten of USA Architecture Undergraduate Programs)	24					7	66	23	36	3	12 (12,0)		171
6	**Auburn University** (ranked 8th in 2014 and 9th in 2017 in the top-ten of USA Architecture undergraduate Programs)	30					12	59	25	20	4	9 (9,0)		159
Average of Benchmark Programs		**27.14**					**10.15**	**55**	**21**	**25.6**	**5.4**	**21.74**		**165.2**

Table 21. The Currently Existing Architecture Program Study Plan (172 CR):

First Year (Freshman)							
CS	100	Introduction to Computers	1	DES	101	Design Foundation I	3
SKILL	110	Learning Skills	1	DES	102	Descriptive Drawing I	3

MATH	100	Elementary Mathematics	4	DES	103	Digital Photography & Image Processing	2
PE	101	Physical Education 1	1	PE	102	Physical Education 2	1
ENGL	111	Oral Communication I	3	MATH	101	Mathematics I	4
ENGL	112	Grammar	2	ARAB	101	Arabic Language Skills	2
ENGL	113	Reading & Writing I	3				
			15				**15**
Second Year (Sophomore)							
DES	111	Design Foundation II	4	ARC	211	Architecture Design I	3
DES	112	Descriptive Drawing II	2	ARC	212	Graphic Communication	3
DES	113	Digital Media for Design	3	ARC	213	History of Architecture II	3
ARC	201	History of Architecture I	3	ARC	214	Surveying	2
ARC	202	Building Construction I	3	ARC	215	Theory of structure	2
ARC	216	Statics	3	ENGL	121	Oral Communication II	3
ARAB	102	Arabic Language Writing	2	ENGL	123	Reading & Writing II	3
			20				**19**
Third Year (Junior)							
ARC	301	Intermediate Design Studio I	4	ARC	311	Intermediate Design Studio II	4
ARC	302	Theory of Architecture I	3	ARC	312	Architecture of Arabian Region	3
ARC	303	Building Construction II	3	ARC	313	Theory of Architecture II	3
ARC	304	Landscape and Site Planning	3	ARC	314	Sanitary and Technical Installations	2
ARC	305	Materials and Construction Systems	3	ARC	315	Concrete and Steel Construction	2
ARC	306	Structural Analysis	3	ISLM	101	Introduction to Islamic Doctrine	3
SKILL	120	Critical Thinking & Problem-solving	2	ENGL	122	IELTS Exam Preparation	2
			21				**19**
Fourth Year (Senior)							
ARC	401	Comprehensive Design Studio I	5	ARC	411	Comprehensive Design Studio II	5
ARC	402	Construction Documents I	3	ARC	412	Construction Documents II	3
ARC	403	Housing and Urban Design	3	ARC	413	Humanities in Architecture	2
ARC	404	Environmental Control	2	ARC	414	Principle of Urban Planning	3
ARC	406	Lighting and Acoustics	3	ARC	415	Soil Mechanics and Foundations	2
				ARC	417	Architectural Programming	2
			16				**17**
Fifth Year (Summer Training)							
ARC	501	Advanced Design Studio	5	ARC	511	Graduation Project	6
ARC	502	Graduation Project Research	3	ARC	512	Professional Practice	2
		Elective I	3			Elective III	3
		Elective II	3			Elective IV	3
SKILL	121	Leadership & Teamwork	2				
			16				**14**

Table 22. The Currently University Preparatory Program:

Course Code		Title	Credits	LT	LB	CR
CS	100	Introduction to Computers	1	0	2	1
ISLM	101	Introduction to Islamic Doctrine	3	3	0	3

ARAB	101	Arabic Language Skills	2	2	0	2
ARAB	102	Arabic Language Writing	2	2	0	2
PE	101	Physical Education 1	1	0	2	1
PE	102	Physical Education 2	1	0	2	1
SKILL	110	Learning Skills	1	0	2	1
SKILL	120	Critical Thinking & Problem-solving	2	2	0	2
SKILL	121	Leadership & Teamwork	2	2	0	2
MATH	100	Elementary Mathematics	4	2	4	4
ENGL	111	Oral Communication I	3	0	6	3
ENGL	112	Grammar	2	0	4	2
ENGL	113	Reading & Writing I	3	0	6	3
ENGL	121	Oral Communication II	3	0	6	3
ENGL	122	IELTS Exam Preparation	2	0	4	2
ENGL	123	Reading & Writing II	3	0	6	3
Total credits			**35**	**13**	**44**	**35**
Percentage of UPP program credits			**20%**			

Table 23. The Currently College Requirements:

Course Code		Title	Credits	LT	LB	CR
MATH	101	Mathematics I	4	4	0	4
DES	101	Design Foundation I	3	0	6	3
DES	102	Descriptive Drawing I	3	0	6	3
DES	103	Digital Photography and Image Processing	2	0	4	2
DES	111	Design Foundation II	4	0	8	4
DES	112	Descriptive Drawing II	2	0	4	2
DES	113	Digital Media for Design	3	0	6	3
Total credits			**21**	**4**	**34**	**21**
Percentage of College Program credits			**12%**			

Table 24. The Currently Core Requirements (Compulsory Courses):

Course Code		Title	Credits	LT	LB	CR
ARC	201	History of Architecture I	3	3	0	3
ARC	202	Building Construction I	3	2	2	3
ARC	216	Statics	3	2	2	3
ARC	211	Architecture Design I	3	0	6	3
ARC	212	Graphic Communication	3	1	4	3
ARC	213	History of Architecture II	3	3	0	3
ARC	214	Surveying	2	1	2	2
ARC	215	Theory of structure	2	1	2	2
ARC	301	Intermediate Design Studio I	4	0	8	4
ARC	302	Theory of Architecture I	3	3	0	3
ARC	303	Building Construction II	3	2	2	3
ARC	304	Landscape and Site Planning	3	1	4	3
ARC	305	Materials and Construction Systems	3	2	2	3
ARC	306	Structural Analysis	3	2	2	3
ARC	311	Intermediate Design Studio II	4	0	8	4
ARC	312	Architecture of Arabian Region	3	3	0	3
ARC	313	Theory of Architecture II	3	3	0	3
ARC	314	Sanitary and Technical Installations	2	3	0	2
ARC	315	Concrete and Steel Construction	2	1	2	2

ARC	401	Comprehensive Design Studio I	5	0	10	5
ARC	402	Construction Documents I	3	2	2	3
ARC	403	Housing and Urban Design	3	2	2	3
ARC	404	Environmental Control	2	2	2	3
ARC	406	Lighting and Acoustics	3	2	2	3
ARC	411	Comprehensive Design Studio II	5	0	10	5
ARC	412	Construction Documents II	3	2	2	3
ARC	413	Humanities in Architecture	2	2	0	2
ARC	414	Principle of Urban Planning	3	2	2	3
ARC	415	Soil Mechanics and Foundations	2	1	2	1
ARC	417	Architectural Programming	2	2	0	2
ARC	501	Advanced Design Studio	5	0	10	5
ARC	502	Graduation Project Research	3	1	4	3
ARC	511	Graduation Project	6	0	12	6
ARC	512	Professional Practice	2	2	0	2
Total Credits			**104**	**53**	**106**	**104**
Percentage of Core Program credits			**61%**			

Table 25. The Currently Core Requirements (Electives):

Elective courses of the ARC Program	CR	LT	LB	CR
Special Topics in Architecture (ARC 418)	3	3	0	3
Architectural Preservation (ARC 407)	3	3	0	3
3D Modeling and Animation (ARC 316)	3	1	4	3
Physics (PHY 101)	3	2	2	3
Total Credits	**12**	**9**	**6**	**12**
Percentage of Elective Program credits	**7%**			

Table 26. Summary of Total Credits of the Current Program (172 CR):

Summary of Architectural Engineering Program	CR	LT	LB
UPP Requirement Courses	35	13	44
College Requirement Courses	21	4	34
Core Program Courses	104	53	106
Elective Courses	12	9	6
Total	**172**	**79**	**190**

Table 27. The Revised Architecture Program Study Plan (166 CR):

First Year (Freshman)							
CS	100	Introduction to Computers	1	DES	101	Design Foundation I	3

SKILL	110	Learning Skills	1	DES	104	Descriptive Drawing I	2
MATH	100	Elementary Mathematics	4	DES	105	Freehand Drawing	1
PE	101	Physical Education 1	1	MATH	101	Mathematics I	4
ENGL	111	Oral Communication I	3	PE	102	Physical Education 2	1
ENGL	112	Grammar	2	ENGL	121	Oral Communication II	3
ENGL	113	Reading & Writing I	3	ENGL	123	Reading & Writing II	3
			15				17
Second Year (Sophomore)							
DES	110	Design Foundation II	3	ARCH	211	Architecture Design I	4
DES	120	Descriptive Drawing II	3	ARCH	202	History of Arch. I	2
DES	103	Digital Photo. & Image Process.	3	ARCH	213	Architectural Computing	3
ARCH	214	Building Construction I	3	ARCH	304	Building Construction II	3
PHY	101	General Physics	3	ARCH	216	Statics	3
ENGL	122	IELTS Exam Preparation	2	ISLM	101	Introduction to Islamic Doctrine	3
			17				18
Third Year (Junior)							
ARCH	301	Intermediate Design Studio I	4	ARCH	311	Intermediate Design Studio II	5
ARCH	302	History of Arch. II	2	ARCH	212	Theory of Arch. I	2
ARCH	303	Environmental Control	2	ARCH	313	3D Modeling & Rendering	3
ARCH	306	Structural Analysis I	3	ARCH	314	Concrete & Steel Construction	3
ARCH	305	Landscape and Site Planning	2	ARCH	315	Principles of Urban Planning	2
SKILL	120	Critical Thinking & Problem-solving	2	ARCH	316	Architecture of Arabian Region	2
ARAB	101	Arabic Language Skills	2	ARAB	102	Arabic Language Writing	2
			17				19
Fourth Year (Senior)							
ARCH	401	Comprehensive Design Studio I	5	ARCH	411	Comprehensive Design Studio II	5
ARCH	402	Sanitary & Technical Installations	3	ARCH	412	Humanities in Architecture	2
ARCH	403	Lighting and Acoustics	3	ARCH	413	Housing Design	2
ARCH	404	Construction Documents I	3	ARCH	414	Construction Documents II	3
ARCH	312	Theory of Arch. II	2	ARCH	415	Soil Mechanics and Foundations	3
ARCH		Elective I	2	ARCH		Elective II	2
				SKILL	121	Leadership & Teamwork	2
			18				19
Fifth Year (Summer Training)							
ARCH	501	Advanced Design Studio	5	ARCH	511	Graduation Project	6
ARCH	502	Graduation Project Research	3	ARCH		Elective IV	2
ARCH	503	Project Management	2	ARCH		Elective V	2
ARCH	512	Professional Practice	2	ARCH		Elective VI	2
ARCH		Elective III	2				
			14				12

Table 28. The Revised Curriculum for the Bachelor of Architecture (166 CR)

Year	Freshman		Sophomore		Junior		Senior		Graduation	
Semester	First	Second	First	Second	First	Second	First	Second	First	Second

Courses	Univ. Req. (35 CR)	Physical Educ.	PE 101	PE 102								
		Personal Skills	SKILL 110				SKILL 120			SKILL 121		
		Language Skills	ENGL 111	ENGL 121	ENGL 122		ARAB 101	ARAB 102				
			ENGL 112	ENGL 123		ISLM 101						
			ENGL 113									
		Math	MATH 100	MATH 101								
		Basic Comp.	CS 100									
	College Req. (21 CR)	Physics			PHY 101							
		Basic Design & Computing		DES 101	DES 110							
				DES 104	DES 120							
				DES 105	DES 103	ARCH 213		ARCH 313	ARCH 403			
	Program Req. (110 CR)	ARCH Design				ARCH 211	ARCH 301	ARCH 311	ARCH 401	ARCH 411	ARCH 501	ARCH 511
		History & Theory				ARCH 202	ARCH 302	ARCH 212	ARCH 312	ARCH 412	ARCH 502	
		Construction			ARCH 214	ARCH 304		ARCH 314	ARCH 404	ARCH 414	ARCH 503	
		Materials & Env.					ARCH 303	ARCH 316	ARCH 402		ARCH 512	
		Structural				ARCH 216	ARCH 306		ARCH 415			
		Urban & landscape					ARCH 305	ARCH 315		ARCH 413		
		Electives							ELECT.I	ELECT.II	ELECT.III	ELECT.IV
												ELECT.V
												ELECT.VI
Total Credits			**15**	**17**	**17**	**18**	**17**	**19**	**18**	**19**	**14**	**12**

Table 29. The Revised University Preparatory Program (UPP) Courses:

Course Code		Title	Credits	(LT, LB, CR)
CS	100	Introduction to Computers	1	(0, 2, 1)
ISLM	101	Introduction to Islamic Doctrine	3	(3, 0, 3)
ARAB	101	Arabic Language Skills	2	(2, 0, 2)

ARAB	102	Arabic Language Writing	2	(2, 0, 2)
PE	101	Physical Education 1	1	(0, 2, 1)
PE	102	Physical Education 2	1	(0, 2, 1)
SKILL	110	Learning Skills	1	(0, 2, 1)
SKILL	120	Critical Thinking & Problem-solving	2	(2, 0, 2)
SKILL	121	Leadership & Teamwork	2	(2, 0, 2)
MATH	100	Elementary Mathematics	4	(2, 4, 4)
ENGL	111	Oral Communication I	3	(0, 6, 3)
ENGL	112	Grammar	2	(0, 4, 2)
ENGL	113	Reading & Writing I	3	(0, 6, 3)
ENGL	121	Oral Communication II	3	(0, 6, 3)
ENGL	122	IELTS Exam Preparation	2	(0, 4, 2)
ENGL	123	Reading & Writing II	3	(0, 6, 3)
Total credits			**35**	**(13, 44, 35)**
Percentage of UPP program credits			**21%**	

Table 30. The Revised College Requirement Courses:

Course Code		Title	Credits	(LT, LB, CR)
MATH	101	Mathematics I	4	(2, 4, 4)
DES	101	Design Foundation I	3	(0, 6, 3)
DES	102	Descriptive Drawing I	2	(0, 4, 2)
DES	105	Freehand Drawing	1	(0, 2, 1)
DES	110	Design Foundation II	3	(0, 6, 3)
DES	120	Descriptive Drawing II	3	(0, 6, 3)
DES	103	Digital Photography & Image Processing	3	(1, 4, 3)
Total credits			**19**	**(3, 32, 19)**
Percentage of College Program credits			**12%**	

Table 31. The Revised Core Requirements (Compulsory Courses)

Course Code		Title	Credits	(LT, LB, CR)
PHY	101	General Physics	3	(2, 2, 3)
ARCH	202	History of Architecture I	2	(2, 0, 2)
ARCH	211	Architecture Design I	4	(0, 8, 4)
ARCH	212	Theory of Architecture I	2	(2, 0, 2)
ARCH	213	Architectural Computing	3	(1, 4, 3)
ARCH	214	Building Construction I	3	(2, 2, 3)
ARCH	216	Statics	3	(2, 2, 3)
ARCH	301	Intermediate Design Studio I	4	(0, 8, 4)
ARCH	302	History of Architecture II	2	(2, 0, 2)
ARCH	303	Environmental Control	2	(2, 0, 2)
ARCH	304	Building Construction II	3	(2, 2, 3)
ARCH	305	Landscape and Site Planning	2	(1, 2, 2)
ARCH	306	Structural Analysis I	3	(2, 2, 3)
ARCH	311	Intermediate Design Studio II	5	(0, 10, 5)
ARCH	312	Theory of Architecture II	2	(2, 0, 2)
ARCH	313	3D Modeling & Rendering	3	(1, 4, 3)
ARCH	314	Concrete and Steel Construction	3	(2, 2, 3)
ARCH	315	Principles of Urban Planning	2	(2, 0, 2)
ARCH	316	Architecture of Arabian Region	2	(2, 0, 2)
ARCH	401	Comprehensive Design Studio I	5	(0, 10, 5)
ARCH	402	Sanitary & Technical Installations	3	(2, 2, 3)
ARCH	403	Lighting and Acoustics	3	(2, 2, 3)
ARCH	415	Soil Mechanics and Foundations	3	(2, 2, 3)
ARCH	411	Comprehensive Design Studio II	5	(0, 10, 5)
ARCH	412	Humanities in Architecture	2	(2, 0, 2)
ARCH	413	Housing Design	2	(2, 0, 2)
ARCH	404	Construction Documents I	3	(1, 4, 3)

ARCH	414	Construction Documents II	3	(1, 4, 3)
ARCH	501	Advanced Design Studio	5	(0, 10, 5)
ARCH	502	Graduation Project Research	3	(2, 2, 3)
ARCH	503	Project Management	2	(2, 0, 2)
ARCH	511	Graduation Project	6	(0, 12, 6)
ARCH	512	Professional Practice	2	(2, 0, 2)
Total Credits			**100**	**(47, 106, 100)**
Percentage of Core Program Credits			**60%**	

Table 32. The Revised Core Requirements (Elective Courses)

Field	Elective courses of ARCH Program	CR	(LT, LB, CR)
Digital Design	Special Topics in Computer Aided Design	2	(1, 2, 2)
	Advanced 3D Modeling and Animation (Rivet & IBM)	2	(1, 2, 2)
	Building 3D Virtual Environment	2	(1, 2, 2)
	Advanced Graphic Communications	2	(1, 2, 2)
	Geographic Information System	2	(1, 2, 2)
	Advanced Parametric Design	2	(1, 2, 2)
Cultural Topics	Architectural Criticism	2	(2, 0, 2)
	Architectural Preservation	2	(2, 0, 2)
	Islamic Architecture	2	(2, 0, 2)
	Architecture in the Middle East	2	(2, 0, 2)
	Culture and Architecture	2	(2, 0, 2)
	Special Topics in Architecture	2	(2, 0, 2)
Environmental Control	Thermal Environmental Systems	2	(2, 0, 2)
	Renewable Energy Systems	2	(2, 0, 2)
	Environmental Impact Assessment	2	(2, 0, 2)
	Thermal Comfort	2	(2, 0, 2)
	Sustainable Architecture	2	(2, 0, 2)
	City and Environment	2	(2, 0, 2)
	Survey	2	(2, 0, 2)
	Advanced Urban Design	2	(2, 0, 2)
Interior Design	Color Theory	2	(2, 0, 2)
	Introduction to Interior Design	2	(2, 0, 2)
	Textiles for Interior Design	2	(2, 0, 2)
	Human Behavior and Interior Design	2	(2, 0, 2)
	Materials for Interior Design	2	(2, 0, 2)
	History of Interior and Furniture I	2	(2, 0, 2)
	History of Interior and Furniture II	2	(2, 0, 2)
	Interior Construction	2	(2, 0, 2)
	Universal Design	2	(2, 0, 2)
	IDE Professional Practices	2	(2, 0, 2)
	History of Graphic Design	2	(2, 0, 2)
	GDE Professional Practice	2	(2, 0, 2)
Total Credits Required		**12**	
Percentage of Elective Program Credits		**7%**	

Table 33. Summary of Total Credits of the Revised Program (166 CR):

Summary of Architectural Engineering Program	**CR**	**LT**	**LB**
UPP Requirement Courses	35	13	44
College Requirement Courses	19	3	32
Core Program Courses	100	47	106
Elective Courses	12	9	6
Total	**166**	**72**	**188**

II.4.1 Public Information (website language)

The website of CADD in general has been redeveloped to provide a convenient portal for surfying the system with accessing permision according to the type of user.

Specifically, the public information has been given extra care for anyone to surf the website for any needed information of concern. The CADD administartion has assigned a special committee of acdemics and IT professionals to filter the information and the language used in their most efficient and reliable post. Further to the digital information, all special events such as public lectures, galleries, workshops and notes to students are posted on the advertising panel inside the male and female sections of CADD with all printed documents avaiable at the CADD's administrative office. Meanwhile, the public information of CADD considers the high school students to attend an open day organized by the three departments of CADD to introduce the scope of work and the curriculum characteristrics, especialy the design studios, with pratical presentation and exnibited student works.

II.4.2 Access to NAAB Conditions and Procedures

The access to the NAAB conditions and procedures concerns the public and all DAU members being they students, employees or academic staff. Therefore, this type of information is made available in print at various locations of the DAU admistration such as the admmission and registration office, Rector's office, the UPP administration office and of course the administration of CADD. In addition, the website of CADD provides open access to this type of information that extends to the public without restriction due to its importance not only inside DAU but also to the community at large. The program administrators held meetings with students for explaining them how to access the NAAB conditions and procedures.

II.4.3 Access to Career Development Information

The administrators of the architectural progam and the DAU administartion have made every effort to access the information on career development and made them available to all parties involved. All of the female and male students, faculty members and the employees as well are now aware of the opportunities for career development, in addition to the orientation of how to plan and apply in the easiest way possible with full support from the university.

II.4.4 Public Access to APRs and VTRs

Besides the printed documents that have been distributed over the library and the administration offices of DAU, the APRs and VTRs are uploaded over the CADD's website and made available to the public for accessing any of them at any time. This provides an opportunity for the public and not only the DAU members to follow on the program's development throughout the NABB substantial equivalency process, which strengthens the relationship between the community and DAU with transparency.

Part Four: Supplementary Information

4.1. Course Description

DES 101 – Design Foundation I

Course ID & Title	DES 101 – Design Foundation I
Total credits awarded	3 Cr Hrs – 6 Contact Hrs
Course Description (limit 25 words):	This course addresses the study of the basic elements and principles of design. It applies an exploration of problem solving and design elements and principles in 2-dimensional compositions.
Course Goals & Objectives (list):	• To adopt a creative approach to problem solving and apply the elements and principles of design to a given problems. • To Increase the ability of cognitive skills by providing seminars about elements & principles of design through internet & others. • To design and draw details of solving designable problems. • To increase the ability of communication and information technology. • Be able to use media of 2D drawings to explain their intentions. • To develop the ability to organize the time and effort. • Increase psychomotor skills through using their hands & figures.
Student Performance Criterion/ addressed (list number and title):	A.2. Design Thinking Skills (ability) A.3. Visual Communication Skills (ability) A.6. Fundamental Design Skills (ability) A.8. Ordering Systems Skills (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Presentation, Pre-conceptions, Blindfold sensory (5%). • Line vs. Mark-making (10%). • Wire drawings (10%). • Nature Squares (10%). • Shape and Form (10%). • Perceptual Structure & Figure/Ground Motif Collage (10%). • Rhythm/Movement (10%). • Visual Organization Balance (10%). • Color as Light (10%).
Prerequisites:	None
Textbooks/Learning Resources:	Textbook: Universal Principles of Design: 125 Ways to Enhance Usability, Influence, William Lidwell, Kritina Holden,Jill Butle, 2010. Textbook: How Designers Think: The Design Process Demystified Bryan Lawson 2006.
Offered (semester and year):	Second semester / First year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Inas Rashed Mr. Mohammed Alqahtani

DES 102 – Descriptive Drawing I

Course ID & Title	DES 102 – Descriptive Drawing I
Total credits awarded	2 Cr Hrs – 4 Contact Hrs`

Course Description (limit 25 words):	The course introduces students to the fundamental principles of analytical drawing and presenting design concepts. It introduces students to manual drafting processes including freehand drawing, single-view drawing and pictorial drawing.
Course Goals & Objectives (list):	• Acquire necessary representational and analytical skills including graphic thinking techniques. • Recognize the process of design composition of primary elements using freehand and manual drawings. • Produce, to a minimum established standard, design drawings that presents specific design concepts. • See and represent basic geometrical forms, positive and negative space, and mass.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability)
Topical Outline (including percentage of time in course spent in each subject area):	• Free hand lines and curves. (20%) • Drafting Geometry and Single-View Drawing. (15%) • Orthographic Projection. (15%) • Auxiliary Views. (10%) • Sectional Views. (10%) • Pictorial Drawing (isometric). (20%) • Lettering; Symbols. (10%)
Prerequisites:	None
Textbooks/Learning Resources:	Textbook: Spencer & Dygdon, 1994. Basic Technical Drawing. Second edition. Prentice-Hall.
Offered (semester and year):	Second semester / First year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Ms. Noha Qassab (Female section) Dr. Ahdab Al Mahdaly (Female section) Ms Marwa El Sayed (Female section) Dr Ignacio Palma Carazo (Male section) Mr Anas Al Hussein (Male section)

DES 103 – Digital Photography and Image Processing

Course ID & Title	DES 103 – Digital Photography and Image Processing .

Total credits awarded	3 Cr Hrs – 5 Contact Hrs
Course Description (limit 25 words):	Learn fundamental principles of digital-imaging using the most updated image-processing software. Topics include; production, manipulation and output of digital-images, also aesthetics of photographic image manipulation.
Course Goals & Objectives (list):	• Acquire basic photographic principles and concepts Recognizing basic photographic peculiarities. Also be able to make digital photographs that are well crafted and neat. • Acquire the basic principles of resolution and output of digital imaging and to realize the production of digital imaging • Introduction to the basics of image processing using Adobe Photoshop demonstrating the skill of manipulating digital imaging. • To demonstrate the skills necessary for the production of photographic imaging from digitized or analogue images. • Grasp the basic principles of aesthetic manipulation of digital images. • Design skills, design process, personal expression, content development, project management, and trends in visual communication as they relate to digital imaging will be emphasized along with the learning of tools and techniques.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability)
Topical Outline (including percentage of time in course spent in each subject area):	• History and Introduction of photography (10%) • Introduction to Digital Imaging (10%) • Working with Layers, Working with Type tool (20%) • Transforming & Retouching (10%) • Use computerized layering techniques to apply special effects(10%) • Color, Tonal Adjustments and Sharpening Images (20%) • Understanding filters (10%) • Understanding of the concept of resolution (10%)
Prerequisites:	ENGL 111
Textbooks/Learning Resources:	Textbook: London, Barbara – Upton, John – Stone, Jim – Kobre, Kenneth – Brill, Betsy. Photography: Eighth Edition. ISBN:0-13-189609-1 Textbook: The Adobe PhotoshopCS5 Book for Digital Photographers.
Offered (semester and year):	Second semester / First year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Mr. Jabran Zaffar Dr. Rehab Hassan Ms. Dalia AlAkki

PHY 101 – General Physics

Course ID & Title	PHY 101 – General Physics
Total credits awarded	3 Cr Hrs – 2 Contact Hrs
Course Description (limit 25 words):	This course provides a thorough introduction to the principles and methods of physics. Emphasis is placed on problem solving and quantitative reasoning. This course covers Newtonian mechanics, special relativity, gravitation, friction, deformations, hydrostatics, an introduction to electrical potential energy and magnetic field, thermodynamics, and waves.
Course Goals & Objectives (list):	• The student will be able to solve physical problems related to his major . • The student can analyze the forces and moments applied on the structures. • The student will have ability to understand the behavior of the structure due to waves which come from earthquake.
Student Performance Criterion/ addressed (list number and title):	A.2. Design Thinking Skills (ability)
Topical Outline (including percentage of time in course spent in each subject area):	• Newtonian mechanics (30%). • Special relativity (10%). • Gravitation , Friction and Deformations (20%) . • Hydrostatics (10%). • Electrical potential energy and magnetic field (10%). • Thermodynamics and waves (20%).
Prerequisites:	ENGL 111
Textbooks/Learning Resources:	Textbook: Physics , Poul E .Tippens seven Edition McGraw -HILL 2007. Textbook: Materials science and Engineering An introduction, William D. Callister , Jr. Third edition 2006 . Textbook: Physics Q .Rowell and S.Hrbert, Cambridge low price Edition 498589 1995 .
Offered (semester and year):	Second semester / First year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Ms. Dima Khalid Afisa, Dr. Thomas Olsen

MATH 101 – Mathematics I

Course ID & Title	MATH 101 – Mathematics I
Total credits awarded	3 Cr Hrs – 2 Contact Hrs
Course Description (limit 25 words):	Limits and continuity of functions of a single variable. Derivatives of Polynomials and Exponential Functions. The Product and Quotient Rules. The Chain Rule. Implicit differentiation. Derivatives of Logarithmic Functions. Related Rates. Linear Approximations and Differentials. Maximum and Minimum of functions. First and second derivative tests for local extrema. Inflection points. Curve sketching. Indeterminate Forms and L'Hospital's Rule Applied extrema problems. The Mean Value Theorem and applications
Course Goals & Objectives (list):	• The student will be able to solve mathematical problems related to engineering concepts. • The student can draw the right curves and determine the maximum and minimum values.
Student Performance Criterion/ addressed (list number and title):	A.2. Design Thinking Skills (ability)
Topical Outline (including percentage of time in course spent in each subject area):	• Limits and continuity of functions (20%) . • Derivatives of Polynomials and Exponential Functions , Product and Quotient Rules , Chain Rule , and Implicit differentiation (20%). • Derivatives of Logarithmic Functions and Linear Approximations and Differentials (10%). • Maximum and Minimum of functions and local extreme values and curve sketching (20%). • L'Hospital's Rule (10%). • The Mean Value Theorem and applications (20%) .
Prerequisites:	MATH100
Textbooks/Learning Resources:	Textbook: Fundamentals of Engineering Mathematics / H.K. Dass / S,Chand & Company Ltd / 2008. Textbook: Introduction to Engineering Mathematics / Croft, Davison and Hargreaves, (Addison-Wesley).
Offered (semester and year):	Second semester / First year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Amani Mansour Dr. Haroon Al-Zraigi

DES 111 – Design Foundation II

Course ID & Title	DES 111 : Design Foundation 2
Total credits awarded	3 Cr Hrs – 6 Contact Hrs`
Course Description (limit 25 words):	This course will introduce basic three-dimensional processes and materials as well as develop the students' ability to analyze form and space relationships.
Course Goals & Objectives (list):	• To provide students with knowledge of the technical processes and vocabulary associated with three-dimensional forms. • To reveal and cultivate students' powers of imagination, creativity and ability to conceptualize in three dimensions. • Students will be able to create three-dimensional forms and utilize support drawings, plans, and maquettes. • Students will learn utilize visual elements and design principles in manipulating. • To develop students' ability to analyze three-dimensional works.
Student Performance Criterion/ addressed (list number and title):	A.2. Design Thinking Skills (ability) A.3. Visual Communication Skills (ability) A.6. Fundamental Design Skills (ability)
Topical Outline (including percentage of time in course spent in each subject area):	• Proj. 1: Converting a 2D collage to 3D construction.(2,5%) • Proj. 2:Paper pop-ups.(5%) • Proj. 3: Photomontage, rolled paper.(2,5%) • Proj. 4: Story-line-Maquette of a shop (5%) • Proj. 5 : Subtractive sculpture, texture and shadow - Plaster carving.(5%). • Proj. 6 and 7(Midterm projects) :implant a concept, Assemblage containing the concept of "you "and "the other".(20%) • Proj. 8 : Balance and harmony, motion and time.(5%) • Proj. 9 : Thinking in New Forms- Inflatable Sculpture .(5%) • Proj. 10: Myth making/creating the absurd. (5%) • Proj. 11: Develop ideas and thumbnails for large scale-the wall.(5%) • Proj. 12 : Final project, Installation based on a story.(40%)
Prerequisites:	DES 101 – Design Foundation I
Textbooks/Learning Resources:	Textbook: Stewart, Mary. Launching the imagination: A Comprehensive Guide to Basic Design. (Second Edition) McGraw Hill, NY, NY. 2007. ISBN 0-07-230355-7Publications inc., Mineola, New York, 1999.
Offered (semester and year):	First semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Inas Rashed Mr. Mohammed Salem Alqahtani,

DES112 - Descriptive Drawing II

Course ID & Title	DES112 : Descriptive Drawing II
Total credits awarded	2 Cr Hrs – 4 Contact Hrs`
Course Description (limit 25 words):	This course introduces students to the principles of perspective drawing, shade and shadow. Students learn to draw in detail different shapes from one-point and two-point perspective, using mainly pencil.
Course Goals & Objectives (list):	• The students understand the principles and methods of drawing perspective with one-vanishing point or two-vanishing points. • Be aware to the methods and rules of presenting shades & shadow for different types of forms. • Raising the capacity to assess things objectively by learning how to judge the creative work in arts.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability)
Topical Outline (including percentage of time in course spent in each subject area):	• Realizing Perspectives basics (image plane, cone of vision, angle of vision, vanishing points) Dimensional coordination and application to building elements and components. • Studying of shadows of spatial elements (points, lines, plans and forms) • Study the shades and shadows for perspective learn how to draw one-point perspective and internal perspective using mainly pencil and ink media. • Learn how to draw two-point perspective and external perspective using mainly pencil and ink media. • Recognize how to present shade and shadow in the perspective. • Integrate the effects of light, shade, and shadow.
Prerequisites:	DES 102 – Descriptive Drawing I
Textbooks/Learning Resources:	Textbook: Ernest R. Norling, *Perspective made easy*, Dover Publications inc., Mineola, New York, 1999.
Offered (semester and year):	First semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Mustafa Ramadan Ms. Basma AlSudairi Ms. Ala Alahmad Ms. Shaikhah AlRashed

DES113 – Digital Media for Design

Course ID & Title	DES 113: Digital Media for Design
Total credits awarded	3 Cr Hrs – 6 Contact Hrs`
Course Description (limit 25 words):	The course introduces the software of design such as 3DMax and AutoCAD, with the digital tools and terminology as they apply to creative visual communication.
Course Goals & Objectives (list):	• Define units, function keys, and coordinate systems and create basic objects. • Select, modify, and adjust the properties of objects. • Create and manage layers and line types.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability) A.8. Ordering Systems Skills
Topical Outline (including percentage of time in course spent in each subject area):	• Getting Started with AutoCAD (10%) • Basic Drawing & Editing Commands Drawing. (10%) • Drawing shapes like English alphabets (10%) • Making Changes in Your Drawing (30%) • Advanced Editing Commands. (10%) • Furniture dimensions for Interior Space. (10%) • Printing Your Drawing. (10%) • Setting Up a Layout (10%)
Prerequisites:	DES101 & DES 103
Textbooks/Learning Resources:	Textbook: The Adobe Photoshop software.
Offered (semester and year):	First semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Mr. Mohammed Salem Alqahtani Ms. Marwah Bashatah

ARC 201 – History of Architecture I

Course ID & Title	ARC 201 – History of Architecture I
Total credits awarded	3 Cr Hrs – 3 Contact Hrs
Course Description (limit 25 words):	This course introduces the chronological development of Middle Eastern, Greek, Roman and Byzantine eras. Each era emphasizes the spatial organization in relation to physical characteristics.
Course Goals & Objectives (list):	• Study the historical types of buildings in chronology. • Specify the construction methods and materials of historical buildings. • Define the historical building elements and architectural styles. • Identify the relationship between public and building spaces in history. • Determine the scale and proportions of historical building development.
Student Performance Criterion/ addressed (list number and title):	A7. Use of precedents (ability) A9. Historical Traditions and Global Culture (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Ancient history of the Middle East (25%) • Greek civilization (25%) • Roman civilization (25%) • Byzantine civilization (25%)
Prerequisites:	DES101-Design Foundation I
Textbooks/Learning Resources:	Textbook: Fletcher B. (1996) A History of Architecture, 20th Edition, The Architectural Press.
Offered (semester and year):	First semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Hind Abdul Rahman Mr. Majid El-abd

ARC 202 - Building Construction I

Course ID & Title	ARC 202 - Building Construction I
Total credits awarded	3 Cr Hrs – 4 Contact Hrs
Course Description (limit 25 words):	The aims of this course are to study, theoretically and practically, the principles of building construction and the uses of different building materials.
Course Goals & Objectives (list):	• To study theoretically and practically the principles of building construction and the uses of different building materials. • To understand main architectural topics such as: structure systems, types of foundations, masonry construction, and the use of different building materials such as brick, stone. • Develop skills in studying of complete engineering working Drawings. • Acquire skills in setting dimensions and details on the engineering working drawings. • Recognizing steps of preparing the implementation engineering drawings.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability) A.5. Investigative Skills (ability) B.12. Building Materials and Assemblies Integration (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Introduction (1 week) • Introduction for Steps of preparing the implementation engineering working drawings. (1 week) • First step of working drawings (Drawing planes)(2 week) • Second step of working drawings (Drawing sections). (1 week) • Third step of working drawings(Drawing elevations). (1 week) • Fourth step of working drawings (Drawing lay-outs & site plans). (1 week) • Types of building materials (brick & brick bonding). (2 week) • Types of construction method (Wall Bearing Construction). (1 week) • Skeleton Construction. (1 week) • Box frame Construction – shell Construction. (1 week) • Types of Foundations. (1 week) • Types of wall's elements. (1 week) • Drawing complete working drawing project. (1 week)
Prerequisites:	ENGL112,ENGL111,ENGL113
Textbooks/Learning Resources:	Textbook: Koenigsberger, O., 2005, Manual of Tropical Housing and Building Design with Climate, Longman Group, ltd, London, UK
Offered (semester and year):	First semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Mustafa Mohammad Ramadan Dr. Donia Abdelgawad

ARC 216 –Statics

Course ID & Title	ARC 216 – Statics
Total credits awarded	3 Cr Hrs – 4 Contact Hrs`
Course Description (limit 25 words):	Drawing free body diagrams and analyzing the system of forces and moments. Application of the principles of equilibrium to study the statics of particles, beams and other rigid bodies.
Course Goals & Objectives (list):	• Determine magnitude and direction of forces and moments. • Reproduce a system of forces by an equivalent simplified system. • Operate a system of distributed forces by an equivalent single force magnitude and location • Draw free body diagrams for two dimensional force systems • Solve problems using the equations of static equilibrium
Student Performance Criterion/ addressed (list number and title):	B.9 Structural Systems (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Vector Operations 2 Weeks (14 %) • Rectangular Components of a Force 2 Weeks (14 %) • Static Equilibrium of Rigid Bodies 3 Weeks (22 %) • System of distributed forces 2 Weeks (14 %) • Moment of Forces 3 Weeks (22 %) • Moment of Couples 2 Weeks (14 %)
Prerequisites:	DES101, Math 101, PHY 101
Textbooks/Learning Resources:	Textbook: Mechanics for Engineers: Statics by F.P. Beer, E.R. Johnston, D.F. Mazurek, and E.R. Eisenberg, 9th Edition, McGraw-Hill, 2009. ISBN-13: 978-0-07-246478-9.
Offered (semester and year):	First semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Maad Aldelamy Dr. Assile Abou Diab.

ARC 211 – Architectural Design I

Course ID & Title	ARCH 211 – Architectural Design I
Total credits awarded	4 Cr Hrs – 8 Contact Hrs`
Course Description (limit 25 words):	Exercises of elementary units perform 'game-like' approach of spatial organization and axial development. Villa-type residential project explores the design process in physical and social contexts.
Course Goals & Objectives (list):	• Ability to use appropriate representational media, including freehand drawing and computer technology, to convey essential formal elements at each stage of the programming and design process. • Understanding of the fundamentals of visual perception and the principles and systems of order that inform two- and three-dimensional design, architectural composition, and urban design • Ability to use basic architectural principles in the design of buildings, interior spaces, and sites - • Ability to incorporate relevant precedents into architecture and urban design projects.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability) A.6. Fundamental Design Skills (ability) A.8. Ordering Systems Skills (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Graphics Skills, (50%) • Formal ordering system (20%) • Fundamental design Skills (20%) • Use of Precedence (10%)
Prerequisites:	DES 111 - Design Foundation II
Textbooks/Learning Resources:	Textbook: Ching, Francis K., 1995. Architecture, Form, Space & Order, Oxford, John Wiley & Sons, 2 edition. Textbook: Neufert, Ernst, (1970) 2012. Neufert Architect's Data, Oxford, John Wiley & Sons, 4th Edition
Offered (semester and year):	Second semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Donia Abdelgawad Dr. Ignacio Palma Carazo Mr. Anas Mohammed Hussian

ARC 212 – Graphic Communication

Course ID & Title	ARC 212 – Graphic Communication.
Total credits awarded	3 Cr Hrs – 5 Contact Hrs
Course Description (limit 25 words):	Introduction to fundamentals of 2D-Drafting. Students will utilize CAD to make drawings from scratch, edit existing CAD-models, blocks and print-out quality drawings in any discipline.
Course Goals & Objectives (list):	• Introduce basic computer drafting skills • Identify and describe the major functions of CAD platform. • Effectively communicate 2D compositions and products using CAD software. • Use design modeling to create orthographic drawings: plans, elevations sections. • Create hard copy and soft copy technical drawings. • Learn to utilize digital media as drafting systems to become more productive. • Demonstrate proficiency with the latest CADD software.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability) A.8. Ordering Systems Skills (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Introduction to digital drafting + space orientation (10%) • Basic Commands and modifications to get started (10%) • Gaining Drawing Strategies (10%) • Using Layers to Organize your Drawing (10%) • Dimensioning a Drawing and using leaders (10%) • Grouping objects into blocks (10%) • Create hatching (10%) • Controlling text in a drawing (10%) • Generating Elevations (10%) • Using a layout for printing setup (10%)
Prerequisites:	DES 103
Textbooks/Learning Resources:	Textbook: Finkelstein, Ellen. (AutoCAD 2010 and AutoCAD LT 2010 Bible). USA Indianapolis. ISBN: 978-0-470-463640-0. Textbook: Byrnes, David. (AutoCAD 2011 for Dummies). USA, Hoboken.
Offered (semester and year):	Second semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Mr. Jabran zaffar Dr. Donia Abdelgawad

ARC 213 – History of Architecture II

Course ID & Title	ARC 213 – History of Architecture II
Total credits awarded	3 Cr Hrs – 4 Contact Hrs
Course Description (limit 25 words):	This course focuses on the architecture of the middle ages, starting with the early Christian architecture. It covers the Romanesque Architecture, the Gothic Architecture, and Renaissance architecture, Baroque Architecture with reference to German, French and Italian styles.
Course Goals & Objectives (list):	• To learn about History of Architecture in Middle Ages starting with Early Christian architecture, Romanesque Architecture, The Gothic Architecture, Renaissance Architecture, Baroque architecture, Byzantine Architecture. • To increase the ability of cognitive skills by providing seminars about famous Renaissance or Baroque Architecture. Search about specific topic through internet, how to write reports. • To increase the ability of interpersonal Skills and Responsibility , after each lecture the students will asked to provide report about the topic, and discuss this reports together and uploade in LMS in a time. • To analysis by using the main comparative points. To recognize the design element and buildings characteristics. • To draw sketches by pencils after each lecture, that students will use their hands and figures.
Student Performance Criterion/ addressed (list number and title):	A.7. Use of Precedents (ability) A.9. Historical Traditions and Global Culture (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Introduction to the course 10% • The Early Christian Architecture, 10% • The Romanesque Architecture 30%. • The Gothic Architecture in Europe 30% • Renaissance Architecture 10% • Baroque Architecture 10%
Prerequisites:	ARC 201 - History of Architecture I
Textbooks/Learning Resources:	Textbook: FLETCHER, B., 1905.History of architecture on comparative method, University of Toronto L, UK.
Offered (semester and year):	Second semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Hind Abdel Moneim Khogali Dr. Atef Alshehri Dr. Ibrahim Aljutaily

ARC 214 – SURVEYING

Course ID & Title **Total credits awarded**	ARCH 214 – Surveying 2 Cr. Hrs.- 2 contact hours
Course Description (limit 25 words):	The course introduces the principle of plane surveying, leveling, angle measurements and determination of counter lines, areas and volumes. This course prepares students the understanding of property boundaries and maps associated with engineering projects.
Course Goals & Objectives (list):	1. Understand the basic skills of surveying including distance and angles measurements. 2. Identify the basic construction surveying techniques in the field. 3. Identify skills on how to analyze construction surveying measurements. 4- Developed the skill for using construction surveying instrumentation.
Student Performance Criterion/ addressed (list number and title):	B.9. Structural Systems (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	15% Horizontal distance measurements 10% Erecting and dropping a perpendicular 10% Surveys of buildings 15% Vertical distances 10% Checking instruments 10% Angular measurements 15% Traverse calculation 15% Calculation of areas and volumes
Prerequisites:	MATH 101
Textbooks/Learning Resources:	1. Textbook: Wolf & Ghilani; 2008 ***Elementary Surveying***: An Introduction to Geometrics, 12th Edition;, Penn. St. University; Prentice Hall 2- Learning resources: Russell C. Brinker P.E., Roy Minnick L.S., R.L.S., the Surveying Handbook, Springer US, 1995.
Offered (semester and year):	First semester / Second year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Maad Aldelamy Ms. Dima Ahmed Ofisa

ARCH 215 – Theory of Structure

Number & Title of Course (total credits awarded):	ARC 215 Theory of structure
Course Description (limit 25 words):	The course covers the basic concepts of structures that are modified for architects. It describes forces and type of loads and the balance approach of equilibrium. In addition, utilizes mathematical computation for reactions and moments.
Course Goals & Objectives (list):	1. Developed an understanding of the principles of structural concepts clearly, using analogies and structural problems to illustrate the points; 2. Understood the basic mathematical aspects of the subject in a straight forward manner and placed in context with the concepts involved; 3. Developed the skill to maintain reader interest by incorporating into the text real-life examples and case histories to underline the relevance of the material that the student is learning. 4. Developed an understanding of applying basic structural problem and solving techniques.
Student Performance Criterion/ addressed (list number and title):	A.2 Design Thinking Skills (ability) B.9 Structural Systems (understanding)
Topical Outline (include percentage of time in course spent in each subject area):	1. Introduction to structures: 2 week (14.30%) 2. Types of structures and its elements: 2 weeks (14.30%) 3. Force, mass and weight: 1 week (7.14%) 4. Types and shapes of different loads on structures: 2 weeks (14.30%) 5. Types of Supports and Free body diagram: 2 weeks (14.30%) 6. Structure classification (Stability and determinacy): 3 weeks (21.43%) **7.** How to solve statically determinate structure: 2 weeks (14.30%)
Prerequisites:	ARC 216 and DES 111
Textbooks/Learning Resources:	Garrison, Philip, CEng.; Basic structures for engineers and architects; ISBN 1-4051-2053-3; 2008
Offered (semester and year):	Semester 2, Year 2 (Level 4)
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Professor Maad Aldelamy (Male section) Ms. Dima Ofaisa (Female section)

ARC 301– Intermediate Design Studio I

Course ID & Title	ARC 301 – Intermediate Design Studio I
Total credits awarded	4 Cr Hrs – 8 Contact Hrs
Course Description (limit 25 words):	The course covers teaching & learning in the design of a medium-sized building, as well as the exterior areas related to it. Prior to this development, a preliminary project is developed, the site analysis where the medium-sized project will be developed, as well as the study of a real case about that typology.
Course Goals & Objectives (list):	Technical & artistic understanding of the: • Experience research skills in medium level design projects. • Encourage the collaborative skills of teamwork. • Design according the climatology, historical, urban and environmental context, at macro and micro dimensions & scales. • Explore national and regional traditions in the design works according the site area. • Maintain human diversity of spatial organization. • Facilitate the accessibility networks at different levels of resolution. Students will start to use the following design tools: • Environmental strategies in architectural design process. • Application of International and KSA Building Codes.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability) A.6. Fundamental Design Skills (ability) A.7. Use of Precedents (ability)
Topical Outline (including percentage of time in course spent in each subject area):	• Introduction and a design of a drive-thru coffee shop 5% • Site Analysis 5% • Case Study (kindergarten or School) 10% • Develop a kindergarten or Elementary school 10% • Conceptual Design 10% • Typologies & Context relationships 10% • Design & Graphic developing 30% • Design presentation/final delivery/submission 20%
Prerequisites:	ARCH 211- Architecture Design I
Textbooks/Learning Resources:	Textbook: Ching, Francis K., 1995. Architecture, Form, Space & Order, Oxford, John Wiley & Sons, 2 edition. Textbook: Wucius, Wong, 1993. Principles of Form and Design, Wiley, 1st Edition. Textbook: Neufert, Ernst, (1970) 2012. Neufert Architect's Data, Oxford, John Wiley & Sons, 4th Edition
Offered (semester and year):	First semester / Third year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Ms. Lilas MANSOUR (female section); Mr. Mohmmed S. ALQAHTANY Dr. Ignacio CARAZO

ARC 302 – Theory of Architecture I

Course ID & Title	ARC 302 – Theory of Architecture I
Total credits awarded	3Cr Hrs – 3 Contact Hrs
Course Description (limit 25 words):	This course considers the architectural theories up to the industrial revolution. The course emphasizes the visual and formal analysis of architecture and develops the written skills.
Course Goals & Objectives (list):	• Understand the definition and importance of architectural theory. • Develop an awareness of the evolution of architectural theory across the centuries. • Teach skills in visual and formal analysis of architecture. • Increase written and visual communication skills.
Student Performance Criterion/ addressed (list number and title):	A.7. Use of Precedents (ability) A.9. Historical Traditions and Global Culture (understanding) C.2. Human Behavior (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Introduction, course objectives 5% • What is theory of architecture, and why architects and thinkers produced books about theory of architecture 75% • How theory affects architecture 20%
Prerequisites:	ARC 201, ARC 202
Textbooks/Learning Resources:	Textbook: Cohen, J.-L. (2012). The Future of Architecture Since 1889. London: Phaidon Press. Textbook: Curtis, W. J. (1996). Modern Architecture Since 1900. London: Phaidon Press. Textbook: Fazio, M., Moffett, M., & Wodehouse, L. (2008). A World History of Architecture (2nd Revised ed.). McGraw-Hill Professional.
Offered (semester and year):	First semester / Third year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Ms. Noor Tayeh

ARC 303 –Building Construction II

Course ID & Title	ARC 303 –Building Construction II
Total credits awarded	3 Cr Hrs – 3 Contact Hrs
Course Description (limit 25 words):	This course introduces the non-structural systems of buildings, the principles of their design, types, performance, construction and installation. It explains construction technology through key functional and performance requirements for those elements common to all buildings.
Course Goals & Objectives (list):	• Introduce the main construction systems and their elements. • Define the appropriate structural systems for the building. • Describe the elements of the building, their assemblage, and their functions. • Demonstrate the basic preparations and drawing of building construction documents. • Identify designing a building system or a building component to meet desired needs within a set of constraints.
Student Performance Criterion/ addressed (list number and title):	A.4. Technical Documentation (ability) B.9. Structural Systems (understanding) B.12. Building Materials and Assemblies Integration (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Finishes (interior & exterior walls, floors and ceiling). 50% • Opening System. 20% • Stairs & elevators. 20% • Insulation & protection system. 10%
Prerequisites:	ARC 202 – Building Construction I
Textbooks/Learning Resources:	Textbook: Ching, Francis D.K., & Mulville, Mark, European Building Construction Illustrated, 4th edition, Wiley & Sons, N.J., 2014. Textbook: Allen, E., 1985, Fundamentals of Building Construction, John Wiley, New York.
Offered (semester and year):	First semester / Third year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Mr. Majid El-abd Mr. Anas Hussain Mrs. Dima Ofisa

ARC 304 – Landscape and Site Planning

Course ID & Title	ARC 304 – Landscape and Site Planning
Total credits awarded	3 Cr Hrs – 5 Contact Hrs
Course Description (limit 25 words):	The design process of landscape analyzes the site conditions for integrated spatial organization of gardening essence with hierarchal accessibility from public to private threshold.
Course Goals & Objectives (list):	• Convert the constraints of site conditions into design opportunities. • Emphasize the transitional accessibility between building and outdoor. • Compose landform with hard and soft landscape elements of design. • Detail the working drawings of staking plan and botanies. • Sustain the cultural heritage of landscape in contemporary design
Student Performance Criterion/ addressed (list number and title):	B.2. Accessibility (ability) B.4. Site Design (ability)
Topical Outline (including percentage of time in course spent in each subject area):	• The process of landscape design (10 %) • Analysis of site conditions (10 %) • Landform (10 %) • Accessibility of site planning (10 %) • Hard landscape elements and design (10 %) • Soft landscape elements and design (10 %) • Landscape composition and working drawings (10 %) • Schools of landscape design: (30 %)
Prerequisites:	ARCH 211 - Architecture Design I.
Textbooks/Learning Resources:	Textbook: Mahadin, Kamel. Landscape plants for Jordan and the Middle East, Amman, M.K. Associates, 2006 Textbook: Motloch, John. Introduction to Landscape Design. New York: Van Nostrand Reinhold, 1991. Textbook: Turner, James & Odenwald, Neil. Identification, Selection and Use of Southern Plants: For Landscape Design. Claitor's Law Books and Publishing, Textbook: Harris, Charles & Dines, Nicholas, Time-Saver Standards for Landscape Architecture, McGraw-Hill Professional, 2nd Edition, 1997. Textbook: Smith, Ken, Landscape Architects Urban Projects: A Source Book in Landscape Architecture, Princeton Architectural Press; 1st Edition, 2005 Textbook: Swaffield, Simon (Editor), Theory in Landscape Architecture: A Reader, Philadelphia: University of Pennsylvania Press, 2002
Offered (semester and year):	First semester / Third year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Assoc.Prof. Yasser E. Fouda Dr. Ibrahim AlJutaily Dr. Ali El Shazly. Ms. Alia AlMallah

ARC 305 – Materials and Construction Systems

Course ID & Title	ARC 305 – Materials and Construction Systems
Total credits awarded	3 Cr Hrs – 4 Contact Hrs
Course Description (limit 25 words):	Introduction to different types and properties of materials used in construction. Basic properties of concrete and steel. Different structural systems for Walls, floors, doors, windows and roofs.
Course Goals & Objectives (list):	• Gain basic knowledge of construction systems including substructure (foundation), superstructure, enclosure (walls and roofs), interior finishes and special construction. • Be familiar with construction system considering the system advantages and disadvantages, the desired needs, and integration with other systems within a set of constrains. • Be able to interpret proper construction details or building components for a particular architectural design. • Recognize and be aware of emerging technologies in the construction industry.
Student Performance Criterion/ addressed (list number and title):	B.3. Sustainability (ability) B.9. Structural Systems (understanding) B.12. Building Materials and Assemblies Integration (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Structural materials and Systems (5 %) • Foundation materials and Systems (5 %) • Floor materials and Systems (15 %) • Roof materials and Systems (15%) • Walls materials and Systems (15%) • Moisture and Thermal Protection (5 %) • Special Constructions (10 %) • Doors and Windows (15 %) • Interior and Exterior Finish Work (15 %)
Prerequisites:	ARC 215- Theory of structure & ARC 211- Architecture Design I
Textbooks/Learning Resources:	Textbook: Building Construction: Principles, Materials, and Systems 2009; By Madan Mehta, Walter Scarborough and Diane Armpriest; Prentice Hall.
Offered (semester and year):	First semester / Third year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Maad Aldelamy Dr. Shabbab Al Hammadi Dr. Assile Abou Diab

ARC 306 – Structural Analysis

Course ID & Title	ARC 306 – Structural Analysis
Total credits awarded	3 Cr Hrs – 4 Contact Hrs`
Course Description (limit 25 words):	The course introduces structural design concept and process, analysis of statically determinate structures, analysis of indeterminate structures by flexibility method and stiffness method.
Course Goals & Objectives (list):	• To introduce design concept and process of structures. • To review analysis of statically determinate structures. • To understand the deformations of structures under loading. • To introduce flexibility method for analysis of statically indeterminate structures. • To introduce stiffness method for analysis of statically indeterminate structures. • To introduce influence lines for reactions and internal forces under moving load.
Student Performance Criterion/ addressed (list number and title):	B.9. Structural Systems (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Types of structures and its elements (5 %) • Types and shapes of different loads on structures (5 %) • Different types of supports and equilibrium equations (10 %) • Structure classification: determinate and indeterminate structures (10%) • Stability and determinacy of structures (10%) • Reaction computations (10 %) • Internal forces in trusses (10 %) • Internal forces in beams and its diagrams (20 %) • Internal forces in frames and its diagrams (20 %)
Prerequisites:	ARC 215- Theory of structure & ARC 211- Architecture Design I
Textbooks/Learning Resources:	Textbook: Basic structures for engineers and architects; Garrison, Philip, CEng.; Blackwell Publishing Inc., 350 Main street, Malden, MA 02148-5020, USA ISBN-10 1-4051-2053-3
Offered (semester and year):	First semester / Third year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Maad Aldelamy, Dr. Shabbab Al Hammadi Dr. Assile Abou Diab

ARC 311 – Intermediate Design Studio II

Course ID & Title	ARC 311 – Intermediate Design Studio II
Total credits awarded	4 Cr Hrs – 8 Contact Hrs`
Course Description (limit 25 words):	This course introduces the design process as a problem-solving strategy for a relatively complicated program. The main goal is to train the student in conducting pre-design studies and analyses as a critical input to the design process.
Course Goals & Objectives (list):	• Design an environmentally friendly building. • Design for the approval and appreciation of "real people". • Apply practical and theoretical analysis and problem-solving skills. • Develop a strong and appropriate concept that clearly enhances the overall solution. • Recognize and demonstrate the full potential of the problem. • Recognize the functional relationships between the different spaces inside the building. • Approach a design problem from a contextual point of view.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability) A.6. Fundamental Design Skills (ability) A.7. Use of Precedents (ability) A.8. Ordering Systems Skills (understanding) B.3. Sustainability (ability) B.8. Environmental Systems (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Visual Survey & Data Collection. 5% Case Study & Program Development. 5% Conceptual Design. 15% DEVELOPED DESIGN. 35% FINAL DETAILED DESIGN. 40%
Prerequisites:	ARCH 301- Intermediate Design Studio I
Textbooks/Learning Resources:	Textbook: Ching, Francis D.K., 1979. Architecture: Form, Space and Order, New York: Van Nostrand Reinhold,. Textbook: Ching, Francis D.K., 1975. Building Construction Illustrated, New York: Van Nostrand Reinhold.
Offered (semester and year):	Second semester / Third year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Sultan Alotaibi Prof. Gamal Alkholy Ms. Ruba Salah

ARC 312 – Architecture of the Arabian Region

Course ID & Title	ARC 312 – Architecture of the Arabian Region
Total credits awarded	3 Cr Hrs – 3 Contact Hrs
Course Description (limit 25 words):	The chronology of Arabian architecture compares the building typology in terms of physical and spatial characteristics for students to sustain in their designs with cultural values.
Course Goals & Objectives	• Determine the types of historical buildings in the Arabian region. • Compare the building elements of Arabian architecture by region & time. • Compare the construction systems and materials of Arabian architecture. • Specify the principles of spatial composition in Arabian architecture. • Sustain the architectural heritage values in contemporary designs.
Student Performance Criterion/ addressed (list number and title):	A.7. Use of Precedents (ability) A.9. Historical Traditions and Global Culture (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Early Caliphate period (5 %) Umayyed Architecture (15 %) Abasid Architecture (15 %) Architecture of Andalusia (15 %) Fatimid Architecture (10 %) Ayyubid Architecture (5 %) Mamluk Architecture (10 %) Ottoman Architecture (10 %) Timur Architecture (5 %) Safawy Architecture (5 %) Indian Islamic Architecture (5 %)
Prerequisites:	ARC 313 - History of Architecture II
Textbooks/Learning Resources:	Textbook: R. Hillenbrand (2004) *Islamic Architecture: Form, Function and Meaning*, Colombia University Press.
Offered (semester and year):	Second semester / Third year
Faculty assigned	Dr. Hind Othman Dr. A. El Shazly.

ARC 313 – Theory of Architecture II

Course ID & Title	ARC 313 –Theory of Architecture II
Total credits awarded	3 Cr Hrs – 3 Contact Hrs`
Course Description (limit 25 words):	Comparing the design principles of architectural movements and pioneers since early modernism enables students to think critically and approach the problem solving in creative design based on theoretical knowledge.
Course Goals & Objectives	• Clarify the impact of modern industrial development on building design. • Gain knowledge of modern theories and the works of pioneer architects. • Develop skills of criticism based on reasoning of design principles. • Produce creative designs based on theoretical argument. • Express critical thinking in written, oral and sketch design.
Student Performance Criterion/ addressed (list number and title):	A.7. Use of Precedents (ability) A.9. Historical Traditions and Global Culture (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Pre-Modern Introduction (5 %) The 18th Century and the Mechanical Vision to the World (5 %) The 19th Century and the Industrial Revolution (5 %) Architectural Movements in the 19th Century (5 %) Pioneer Architects of the 19th Century (5 %) Modern Architecture of the Early 20th Century (5 %) The Bau Haus School of Modern Arts (1919-1933) (5 %) Pioneers of Modern Architecture (10 %) CIAM & Modernism Development (1930s) (5 %) Early Post-Modern Movements (5 %) Late Post-Modern Movements (10 %) The Masters of Post Modern Architecture (10 %) High-Tech Architecture (5 %) Deconstructivism (1980s) (10 %) Contemporary Movements in Architecture (10 %)
Prerequisites:	ARC 302 - Theory of Architecture I
Textbooks/Learning Resources:	Textbook: Manfredo Tafuri & Francesco Dal Co (1986) *Modern Architecture I & II*, Electa/Rizzoli, Milano.
Offered (semester and year):	Second semester / Third year
Faculty assigned	Dr. Ahmed Touman Dr. Ali El Shazly Ms. Hind Abdulmunim Othman

ARC 314 – Sanitary and Technical Installations

Course ID & Title	ARC 314 – Sanitary and Technical Installations
Total credits awarded	3 Cr Hrs – 3 Contact Hrs
Course Description (limit 25 words):	The course covers the fundamentals of sanitary and technical installations for buildings, including water supply (cold & hot water, irrigations, swimming pool treatment systems, etc.), wastewater and drainage, fire protection and HVAC & Refrigeration systems.
Course Goals & Objectives (list):	Develop a full comprehension of the building sanitary and technical installations assessment. Understand the design process of those facilities in buildings Develop schematic drawings about those facilities, considering the influence of their integration in the subject of building design & construction. Water & Energy conservation strategies, application of International and KSA Building Codes, and the integration with/impact on architectural design
Student Performance Criterion/ addressed (list number and title):	B.11. Building Service Systems Integration (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Introduction 5% • Water supply (cold & Hot water network) 15% • Water supply (Solar Water Heating SWH Systems) 10% • Swimming pool treatment system 10% • Garden irrigation systems 10% • Drainage/Sewage (wastewater network) 20% • Drainage/Sewage (rain and runoff networks) 10% • Fire Protection Systems 10% • HVAC & Refrigeration Systems 10%
Prerequisites:	ARC 303– Building Construction II & ARC 301– Intermediate Design Studio
Textbooks/Learning Resources:	Textbook: R. Stein (1988) Mechanical and Electrical Equipment for Buildings, Mac Guinness, UK.
Offered (semester and year):	Second semester / Third year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Ignacio Javier PALMA CARAZO Ms. Ruba Salah

ARC 315 – Concrete and Steel Construction

Course ID & Title	ARC 315 – Concrete and Steel Construction
Total credits awarded	3 Cr Hrs – 4 Contact Hrs
Course Description (limit 25 words):	Study of the performance characteristics of concrete and steel, as construction materials. The main emphasis of the course will be on construction applications. Provides general residential and commercial construction knowledge and an understanding of the construction process.
Course Goals & Objectives (list):	• Gain basic knowledge of construction systems including substructure (foundation), superstructure, enclosure (walls and roofs), • Be familiar with construction system considering the system advantages and disadvantages, the desired needs, and integration with other systems within a set of constrains. • Recognize and be aware of emerging technologies in the construction industry in regards two main construction materials (Concrete and Steel). • Be able to interpret proper construction details or building components for a particular architectural design.
Student Performance Criterion/ addressed (list number and title):	B.9 Structural System (understanding) B.12 Building Materials and Assemblies Integration (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Site cast Concrete 10% • Pre-cast Concrete 10% • Types of Slabs 15% • Structural Steel Construction 10% • Light Steel 10% • Truss and Frame Systems 10% • Foundation Systems 5% • Walls Systems 10% • Moisture and Thermal Protection 10%
Prerequisites:	ARC 306- Structure Analysis and ARC 301 Design Studio
Textbooks/Learning Resources:	Textbook: Fundamentals of building construction materials and methods; By: Edward Allen & Joseph Iano; Wiley; 5 editions 2008
Offered (semester and year):	Second semester / Third year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Maad Aldelamy Ms. Dima Afisa.

ARC 316 – Advanced 3D Modeling and Animation

Course ID & Title	ARC 316 – Advanced 3D Modeling and Animation
Total credits awarded	3 Cr Hrs – 5 Contact Hrs
Course Description (limit 25 words):	It introduces students to the principles of 3d modeling/texturing and rendering techniques. Students learn to present and render architectural buildings and spaces using Mental-ray in 3D Max. The course emphasizes the development of an individual approach to representation, and a wide variety of assignments encourages the student to develop an understanding of a range of techniques.
Course Goals & Objectives (list):	To enable students how to work in a production environment, understand the mechanics of advance 3D Modeling Ability to create 3D models using a variety of techniques, work with materials to texture your models, understand how to light a scene, be able to create animations, stage a scene, understand cinematography and learn how to create output for use in post-production.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability) A.6. Fundamental Design Skills (ability) A.8. Ordering Systems Skills (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Introduction to Autodesk 3DS Max Design 2014 and 3D Modeling: (31.25%) Material Techniques, Lighting, Use of Cameras & Views: (31.25%) Rendering and Animation: (25%) Student Assessment : (12.5)
Prerequisites:	ARC 212
Textbooks/Learning Resources:	Textbook: Mastering Autodesk 3ds Max Design 2014: By Mark Gerhard, Jeffrey Harper
Offered (semester and year):	First semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Mr. Jabran Zaffar Mr. Mohanad Bawadkji Ms. Bareera Iqbal Ahmed

ARC 401 – Comprehensive Design Studio I

Course ID & Title	ARC 401 – Comprehensive Design Studio I
Total credits awarded	5 Cr Hrs – 10 Contact Hrs
Course Description (limit 25 words):	This course addresses concepts, processes and skills to urban and architectural design, and will focus on a medium scale project to be developed in a complex historical district.
Course Goals & Objectives (list):	• Solving design problems with emphasizes on technical, esthetical, social and environmental aspects. • Demonstrate ability in problem solving and critical thinking in both individual and group-work.
Student Performance Criterion/ addressed (list number and title):	A.3. Visual Communication Skills (ability) A.5. Investigative Skills (ability) A.7. Use of Precedents (ability) A.9. Historical Traditions and Global Culture (understanding) C.1. Collaboration (ability)
Topical Outline (including percentage of time in course spent in each subject area):	Case study of built heritage (10%) Site analysis (10%) Heritage building documentation and analysis (20%) Conceptual Design (10%). Project Development (10%) Landscape and site considerations (10%) Comprehensive project development and final presentation (30%)
Prerequisites:	ARC 311 - Intermediate Design Studio II
Textbooks/Learning Resources:	Textbook: Ching, Francis D. K., 2008. Building Construction Illustrated, New Jersey: John Wiley & Sons. Textbook: Cuthbert, Alexander, 2011. Understanding Cities. Method in Urban Design, London: Routledge. Textbook: Schittich, Christian, 2010. Building Skins, Berlin: Detail Publishers.
Offered (semester and year):	First semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr.Hind Abdel Moneim Khogali Mr. Majid Al Abed . Dr. Dr.Ibrahim Aljutaily Dr. Hassan Kari Dr.Ignacio Palma Carazo

ARC 402 – Construction Documents I

Course ID & Title	ARC 402 – Construction Documents I
Total credits awarded	3 Cr Hrs – 4 Contact Hrs
Course Description (limit 25 words):	This course aims at training the students to draw all construction documentation needed for a building project. Students will learn to produce drawings in details and material specifications, including electrical and plumbing drawings.
Course Goals & Objectives (list):	• To be able to understand construction drawings. • Be able to express an architectural project graphically. • To prepare the students for the professional life.
Student Performance Criterion/ addressed (list number and title):	A.4. Technical Documentation (ability) B.10. Building Envelope Systems (understanding) B.12. Building Materials and Assemblies Integration (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Preparing the frames and the index. Setting basic plans, elevation and section. 15% • Defining floor plans (Fixed Furniture, Dimensions, Areas, Finishes Materials , Walls , structure coulm system and all opining) . 40% • Drawing a constructive details section cutting the façade. 15% • Drawing a lay out of the building with he fences and. landscapr 15% • Drawing plans for Technical Documentation (electrical and plumbing drawings). 20% • Bill of Quantity. 5% • Material Research for different items. 5%
Prerequisites:	ARCH 314 – Concrete & Steel Construction
Textbooks/Learning Resources:	Textbook: Ramsey, Charles George; Sleeper, Harold Reeve; Hoke, John Ray Jr. 2000. Textbook: Architectural Graphic Standard. John Wiley & Sons. Textbook: Krippner Lang, Herzog. Facade construction manual. Birkhäuser, Edition Detail. Textbook: Sedlbauer, Shunck, Barthel, Künzel. Flat roof construction manual, Materials, Designs, Applications. Edition Detail. Textbook: Moussavi, Farshid ; Hoffman, , 2006. The function of ornament, ACTAR.
Offered (semester and year):	First semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Gamal Elkholy Ms. Noor Tayeh

ARC 403 – Housing and Urban Design

Course ID & Title	ARC 403 – Housing and Urban Design
Total credits awarded	3 Cr Hrs – 4 Contact Hrs
Course Description (limit 25 words):	This course consists of two parts; Housing, which provides an introduction to housing theory, and Urban Design, which provides an introduction to urban design terms in both physical and non-physical aspects.
Course Goals & Objectives (list):	• Introduce housing design process and site planning of housing projects; and the development of socio-economic housing approach within an urban design context • Advance students' understanding of how public policy and private markets affect housing, economic development, the local economy, and neighborhood institutions • Give students an opportunity to reflect on their personal sense of the "housing, community, and economic development" process and the various roles that planners play in implementing various elements of those processes. • Introduce urban design theory and neighborhood design principles.
Student Performance Criterion/ addressed (list number and title):	A.10. Cultural Diversity (understanding) A.11. Applied Research (understanding) B.4. Site Design (ability) C.2. Human Behavior (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Introduction, course objectives 5% Housing types, Housing problems, Sustainable housing 45% Neighborhood Design, Land use, Urban Design 50%
Prerequisites:	ARC 311
Textbooks/Learning Resources:	Textbook: Fauset, C. F. (1991). Housing Design: an international perspective. London: B. T. Bartsford. Textbook: Lang, J. (2005). Urban Design: A Typology of Procedures and Products - Illustrated with 50 Case Studies. Routledge.
Offered (semester and year):	First semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Ibrahim Aljutaily Dr. Ali El Shazly Ms. Noor Tayeh

ARC 404 – Environmental Control

Course ID & Title	ARC 404 – Environmental Control
Total credits awarded	2 Cr Hrs – 2 Contact Hrs
Course Description (limit 25 words):	This course adjusts the climatic conditions within the comfort zone of human performance in building design. The essence of this course design sunshade devices and passive systems of cool ventilation.
Course Goals & Objectives (list):	Control the vertical and horizontal angles of sunshade design upon the sun-path diagram on hour basis. Control the thermal load of building spaces through the K-value calculation of cross-sectional building materials. Control the building ventilation through the design of openings on the micro-climate of building spaces and the urban macro-climate as well. Control the comfort zone projection on the psychometric chart for various climatic conditions.
Student Performance Criterion/ addressed (list number and title):	B.3. Sustainability (ability) B.8. Environmental Systems (understanding) B.10. Building Envelope Systems (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Construct the sun-path diagram for the design of sunshades (20%) Thermal load calculation of building envelope and internal loads (20%) Passive cooling systems (20%) Types and methods of designing natural building ventilation (10%) Psychometric chart and the comfort zone projection (10%) Orientation of building surfaces and masses. (10%) Determine the building form according to climatic conditions (10%)
Prerequisites:	ARC 202 – Building Construction I
Textbooks/Learning Resources:	Textbook: Victor Olgyay (1992) Design with Climate: Bioclimatic Approach to the Architectural Regionalism, John Willy & Sons, 1992 Textbook: Alison C (2011) Green Studio hand book Environmental Strategies for Schematic Design, AIA+Walter T. Rutledge Press.
Offered (semester and year):	First semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Sultan Al-Otaibi Mr. Majid El-abd Ms. Hind Othman

ARC 406 – Lighting & Acoustics

Course ID & Title	ARC 406 – Lighting & Acoustics
Total credits awarded	3 Cr Hrs – 4 Contact Hrs
Course Description (limit 25 words):	This course examines the reverberation and resonance criteria of designing room acoustics. Artificial illumination introduces the design methods and load calculation in building electrical installations.
Course Goals & Objectives	Examine the sound-path diagram of reverberation. Examine the axial mode frequency of resonance. Determine the type & intensity of illumination for room functions. Electrical working drawings with total versus actual load calculation.
Student Performance Criterion/ addressed (list number and title):	B.8. Environmental Systems (understanding) B.11. Building Service Systems Integration (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	The study of sound reverberation (15 %) The study of sound resonance (15 %) Methods of sound absorption (10 %) Methods of sound isolation (10 %) Electronic sound (10 %) Types of illumination (10 %) Distribution of illumination (10 %) Electrical working drawings (10 %) Calculation of electrical loads (10 %)
Prerequisites:	ARC 303 - Building Construction II
Textbooks/Learning Resources:	Textbooks: M. Egan (2007) *Architectural Acoustics,* J. Ross Publishing, USA. Walter T. *et al.* (2010) *Mechanical and Electrical Equipment for Buildings*, John Wiley & Sons.
Offered (semester and year):	First semester / Fourth year
Faculty assigned	Mr. Ana Hussain Dr. A. El Shazly Ms. Noha Qassab

ARC 411 – Comprehensive Design Studio II

Course ID & Title	ARC 411 – Comprehensive Design Studio II
Total credits awarded	5 Cr Hrs – 10 Contact Hrs`
Course Description (limit 25 words):	Develops the solid and void of housing layout with human priority for accessibility, diversity and responsive environment. The design composition details the building prototypes in process.
Course Goals & Objectives (list):	• Experience investigative skills in complex design projects. • Explore national and regional traditions in the design works. • Maintain human diversity of spatial organization. • Facilitate the accessibility networks at different levels of resolution. • Respond to the site conditions at macro and micro scales. • Encourage the collaborative skills of teamwork.
Student Performance Criterion/ addressed (list number and title):	A.05. Investigative Skills (Ability) A.10. Cultural Diversity (Understanding) B.02. Accessibility (Ability) B.04. Site Design (Ability) C.01. Collaboration (Ability) C.09. Community and Social Responsibility (Understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Case study analysis (05 %) • Conceptual master plan (accessibility & zoning) (15 %) • Building typologies (15 %) • Solid and void composition (15 %) • Detailed site design (20 %) • Prototype of high-rise unit (10 %) • Prototype of low-rise unit (10 %) • Final design & presentation (10 %)
Prerequisites:	ARC 401
Textbooks/Learning Resources:	1) Fauset, C. F. (1991) Housing Design: an international perspective. London: B. T. Bartsford. 2) Lang, J. (2005) Urban Design: A Typology of Procedures and Products - Illustrated with 50 Case Studies. Rutledge.
Offered (semester and year):	Second semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Assoc. Prof. Yasser Fouda Dr. Abdulaziz Mahdi AbuSuliman Ms. Noor Tayeh

ARC 412 – Construction Documents II

Course ID & Title	ARCH 414 – Construction Documents II
Total credits awarded	3 Cr Hrs – 5 Contact Hrs
Course Description (limit 25 words):	This advanced course focuses on concepts and methods of preparing construction documents for buildings, by the use of computers, including the use of internet and intranet resources, for an integrated database system which enables access, distribution and coordination of construction documents. Also, outlining specifications and bills-of-quantities/materials.
Course Goals & Objectives (list):	• The students learn how to read the different elements of each engineering set of construction document • They shall be able to produce a typical set of each engineering discipline fully drafted and coordinated • The student should prepare all the architectural working drawing set (the same as she/he did in Arc402) but this time in a bigger project from previous design studios specifically ARC311 or ARC401 • In addition to the architectural set, student has to prepare the mechanical, electrical and Bills of quantities.
Student Performance Criterion/ addressed (list number and title):	A.04. Technical Documentation…….…….Ability B.07 Financial Considerations ……..……Understanding B.10. Building Envelope Systems……..……..Understanding B.11. Building Service Systems Integration…….…..Understanding B.12. Building Materials and Assemblies Integration...……Understanding
Topical Outline (including percentage of time in course spent in each subject area):	Introduction (Syllabus, Calendar, …). 5% Site plan 7% Construction plans 13% Enlarged plans & elevations (kitchen, bath, etc..) 13% Sections+ wall sections 13% Elevations- four elevations 7% Vertical transportation 7% Architectural details 7% Building schedules 7% Electrical 7% Plumbing 7% Bills of Quantities (Quantities, Specifications, and Finance) 7%
Prerequisites:	ARC 402 – Construction Documents I
Textbooks/Learning Resources:	Textbook: 1) Styles, Keith & Bichard, Andrew, *Working Drawings Handbook*, 4th edition, Routledge, NY, 2004. 2) Ching, Francis D.K., & Mulville, Mark, European Building Construction Illustrated, 4th edition, Wiley & Sons, N.J., 2014.
Offered (semester and year):	Second semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Gamal Elkholy Dr. Yasser Fouda Ms. Noha Qassab,

ARC 413 – Humanities in Architecture

Course ID & Title	ARC 413 – Humanities in Architecture
Total credits awarded	2 Cr Hrs – 2 Contact Hrs
Course Description (limit 25 words):	The course studies the relationship between behavioral sciences and the architectural design process. The essence of personal space defines the design principles of various buildings and open spaces.
Course Goals & Objectives	• Define the relationship between human space and building artifact. • Integrate the program of behavioral science in the design process. • Achieve the personal space in social interaction of space. • Facilitate wayfinding and territoriality of the built environment. • Adopt the design principles of humanities for various building functions and public spaces.
Student Performance Criterion/ addressed (list number and title):	A.10. Cultural Diversity (understanding) C.2. Human Behavior (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Theoretical review of human space (10 %) • Human behavior and the designer (10 %) • Personal space of human interaction (15 %) • Human aspects of the built environment (15 %) • The spatial design principles of human functions: (50%) - Living - Working - Meeting - Shopping - Learning - Healthcare - Public spaces
Prerequisites:	ARC 313 - Theory of Architecture II
Textbooks/Learning Resources:	Textbooks: B. Hillier & J. Hanson (1984) *The social Logic of Space*, Cambridge University Press, UK. C. M. Deasy & T. E. Lasswell (1990) *Designing Places for people*, The Architectural Press, USA.
Offered (semester and year):	Second semester / Fourth year
Faculty assigned	Dr. A. El Shazly

ARC 414 – Principles of Urban Planning

Course ID & Title	ARC 414 : Principle of urban planning
Total credits awarded	3 Cr Hrs – 4 Contact Hrs`
Course Description (limit 25 words):	Theory and practice of planning the urban environment integrate the cultural context to the physical essence of land-use and accessibility networks at different levels of resolution.
Course Goals & Objectives (list):	• Experience the process of urban planning in practice. • Explore theories of urban planning in research skills. • Respond to the environmental conditions of urban planning. • Sustain the urban heritage in contemporary planning. • Recognize the socioeconomic driving force of urban planning.
Student Performance Criterion/ addressed (list number and title):	A.5. Investigative Skills (ability) A.9. Historical Traditions and Global Culture (understanding) A.10. Cultural Diversity (understanding) B.2. Accessibility (ability) B.4. Site Design (ability) C.2. Human Behavior (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	• Historical review of urban planning (10 %) • Modern theories of urban planning (20 %) • The process of urban planning (10 %) • Land use principles of urban planning (10 %) • Accessibility principles of urban planning (10 %) • Environmental principles of urban planning (10 %) • Socioeconomic principles of urban planning (10 %) • Planning for urban renewal (10 %) • Administrative framework of urban planning (10%)
Prerequisites:	ARC 403I
Textbooks/Learning Resources:	Textbook: Chapin, S., Kaiser, E. and Godschalk, D. (1965) Urban Land Use Planning, University of Illinois Press, Urbana, USA. Textbook: John Levy, Contemporary Urban Planning 10th Edition , 2013
Offered (semester and year):	Second semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Ibrahim Aljutaily Ms. Noor Tayeh

ARC 415 – Soil Mechanics and Foundation

Course ID & Title	ARC 415 : Soil Mechanics and Foundation
Total credits awarded	3 Cr Hrs – 4 Contact Hrs`
Course Description (limit 25 words):	This course offers a comprehensive presentation of topics in the field of soil mechanics and foundations. It offers a perfect balance of theory and applications for engineers and non-engineers. Topics to be covered are Geologic Overview, Soil Types and Soil Structure, Soil Composition: Terminology and Definitions, Soil Properties, Mechanical Analysis of Soil, Soil Formation and Classification Systems, Stresses in Soil Masses, and Earth Pressure and Soil Foundations
Course Goals & Objectives (list):	• Understand the formation of soil and components. • List the significant engineering properties of soils and their characteristics, • List methods of determining the properties of soils. • Overview of soil mechanical and physical properties, classifications and settlements. • Comprehend the stress and strain theory. • The correlation between soil foundation and earth pressure.
Student Performance Criterion/ addressed (list number and title):	B.4 Site Design (ability) B.9 Structural Systems (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	1. Understand the formation of soil and components (7%) 2. Overview of the main characteristics of the site to determe the soil classification and permeability (14%) 3. List the different types of soils particles and soil classifications. (7%) 4. Overview of physical and engineering properties of soils and their main characteristics (14%) 5. List methods of determining the properties of soils: Mechanical Analysis of Soil (7%) 6. Comprehend the Atterbeg Limits used to define soil behavior. (7%) 7. Understanding the different phases in soil (7%) 8. The correlation between volume relationships and weight relationships of the different phases in soil (14%) 9. Soil Compaction (7%) 10 Overview of soil foundation and mechanical properties, classifications and settlements. (14%)
Prerequisites:	ARCH 306 - Structural Analysis I & ARCH 314: Concrete & Steel Construction
Textbooks/Learning Resources:	Textbook: McCarthy D.F., 2006. Essentials of Soil Mechanics and Foundations Basic Geotechniques, 7h Edition, Prentice-Hall, New Jersey.
Offered (semester and year):	Second semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Maad Aldelamy Dr. Assile Abou Diab

ARC 417– Project Management

Course ID & Title	ARC 417 : Project Management
Total credits awarded	2 Cr Hrs – 2 Contact Hrs`
Course Description (limit 25 words):	This course aims to explain the role of the project manager as the architect responsible to conduct a construction site within a time frame, a specified budget and a quality level. The course teaches how to plan, organize and control the construction work. Students will run a practical work consisting in create an breakdown schedule for one project (Duration of each task, dependence between them, critical chain, milestones, risks, etc.).
Course Goals & Objectives (list):	• Learn and understand the construction project manager job. • Learn list of task needed to build a project. • Create and analyze a breakdown schedule of a construction project (milestones, risks, critical chain).
Student Performance Criterion/ addressed (list number and title):	B.1. Pre-Design (ability) C.3 Client Role in Architecture (understanding) C.4. Project Management (understanding) C.5. Practice Management (understanding) C.6. Leadership (understanding) C.7. Legal Responsibilities (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Construction management environment. 5% Bid, proposal and contracts. 5% Project planning and initiation. 5% Construction scheduling. 5% Project organization. 5% Project control. 5% Construction project execution. 5% Green building and sustainable construction. 5% Construction safety and health. 5% Project communication. 5% Create an breakdown schedule for one project (duration of each task, dependence between them, critical chain, milestones, risks, etc.). 50%
Prerequisites:	ARCH 411 – Comprehensive Design Studio II
Textbooks/Learning Resources:	Textbook: Tommy Ellis. Construction project management guide. Kindle edition. 2013 Textbook: Goerge Rizt and Sidney Levy. Total construction project management. Kindle edition. McGraw-Hill. 2013 Textbook: Tommy Ellis. Construction project management guide. Kindle edition. 2013 Textbook: S. Keaoki Sears, Glen A. Sears, Richard H. Clough. Construction project management. Kindle edition. Wiley. 2010
Offered (semester and year):	Second semester / Fourth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Dr. Shabbab Al-Hammadi Ms. Dima Afisa

ARC 501 – Advanced Design Studio

Course ID & Title	ARC 501 - Advanced Design Studio
Total credits awarded	5 Cr Hrs – 10 Contact Hrs`
Course Description (limit 25 words):	Students in this course have to design a large scale mixed-use building. The building has to be continuous and must be developed both horizontally and vertically. Have to solve the uses and circulation inside each use with their connection. Also the relationship between the building and its environment has to be logical and solved. The students have to work from the urban scale to the detailed scale.
Course Goals & Objectives (list):	• To be able to design complex buildings based on program, site analysis responding to an architectural reflection (geometrical system, etc). • Be able to express graphically an architectural project properly, from the urban scale to the construction details. • Work with geometry as a design tool. • Develop critical thinking as an architectural design tool.
Student Performance Criterion/ addressed (list number and title):	A.7. Use of Precedents (ability) A.11. Applied Research (understanding) B.2. Accessibility (ability) B.5. Life Safety (ability) B.6. Comprehensive Design (ability) B.9. Structural Systems (understanding) B.10. Building Envelope Systems (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Conceptual Design: (3 weeks) 25% Preliminary Design: (3 weeks) 25% Project Development: (4 weeks) 33,33% Final Presentation: (2 weeks) 16,66%
Prerequisites:	ARCH 411 – Comprehensive Design Studio II
Textbooks/Learning Resources:	Ball, Philip. The self made tapestry: Pattern formation in nature. Oxford University Press Paperbac. 2001 Mills, B. Criss. Designing with Models: A Studio Guide to Architectural Process Models. John Wiley & Sons Ebook. 2011 Moussavi, Farshid, The function of form. Actar. 2009 Yeang, Ken; Green Design. From Theory to Practice. London: Black Dog, 2011. Kasprisin, Ronald. Urban Design. The Composition of Complexity. New York: Routledge, 2011
Offered (semester and year):	First semester / Fifth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Gamal Elkholy Dr. Mostafa Ramadan Mrs. Noha Kasab

ARC 502 – Graduation Project Research

Course ID & Title	ARC 502 : Graduation Project Research
Total credits awarded	3 Cr Hrs – 4 Contact Hrs
Course Description (limit 25 words):	This individual programming part of the graduation project selects the type of project with data collection and analysis. The research methodology follows theoretical framework and working techniques of architectural programming.
Course Goals & Objectives	• Determine the values of programming architectural projects. • Specify the human issues and the problem statement. • Set the research plan of data collection and analysis. • Communicate with the client through working sessions. • Define the space program and relationships. • Approach the rationale of problem solving.
Student Performance Criterion/ addressed (list number and title):	A.5. Investigative Skills (ability) A.10. Cultural Diversity (understanding) A.11. Applied Research (understanding) C.3 Client Role in Architecture (understanding) C.9. Community and Social Responsibility (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Values and architectural programming (10 %) Issues of architectural programming & the problem statement (10 %) Planning the research structure (10 %) Information gathering (10 %) Detailed site analysis (10 %) Work sessions with the client and users (10 %) Developing the program (10 %) Methods of evaluation (10 %) Techniques of space program (10 %) Conceptual design approach (10 %)
Prerequisites:	ARC 411 – Comprehensive Design Studio II
Textbooks/Learning Resources:	Textbook: Robert G. Hershberger (1999) *Architectural Programming and Predesign Manager*, McGraw-Hill, New York.
Offered (semester and year):	First semester / Fifth year
Faculty assigned	Dr. Mostafa Ramadan Dr. Abdulaziz Mahdi Abu Sulaiman Ms. Ruba Salah

ARC 511 – Graduation Project

Course ID & Title	ARC 511 – Graduation Project
Total credits awarded	6 Cr Hrs – 12 Contact Hrs
Course Description (limit 25 words):	Integrating knowledge and skills acquired during five years of architecture studies. Each student developing their own project, based on the research undertaken in ARCH502.
Course Goals & Objectives (list):	• Integrate in one project the knowledge and skills acquired during five years of studies in architecture. • Integrate engineering systems into architectural design. • Generate each phase of an architectural project with its corresponding architectural drawings. • Prepare a final presentation.
Student Performance Criterion/ addressed (list number and title):	A.10. Cultural Diversity (understanding) A.11. Applied Research (understanding) B.4. Site Design (ability) B.5. Life Safety (ability) B.6. Comprehensive Design (understanding) B.11. Building Service Systems Integration (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Conceptual Design (3 weeks) 25% Preliminary Design (3 weeks) 25% Project Development (2 weeks) 16,66% Working Documents (2 weeks) 16,66% Completed project and Presentation of the Project (2 weeks) 16,66%
Prerequisites:	ARC 501 and ARC 502
Textbooks/Learning Resources:	Abalos, Iñaki. The Good Life: A Guided Visit to the Houses of Modernity. Gustavo Gili. 2001 Alexander, Christopher. Notes on the Synthesis of Form. Harvard University Press Paperback. 1964 Ball, Philip. The self made tapestry: Pattern formation in nature. Oxford University Press Paperbac. 2001 Mills, B. Criss. Designing with Models: A Studio Guide to Architectural Process Models. John Wiley & Sons Ebook. 2011 Moussavi, Farshid, The function of form. Actar. 2009 Yeang, Ken; Green Design. From Theory to Practice. London: Black Dog, 2011. Kasprisin, Ronald. Urban Design. The Composition of Complexity. New York: Routledge, 2011. Lang, John. Urban Design. A Typology of Procedures and Products. Oxford: Linacre House, 2005.
Offered (semester and year):	Second semester / Fifth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. ElSayed Amer Dr. Anna Laura Petrucci

ARC 512 – Professional Practice

Course ID & Title	ARC 512 – Professional Practice
Total credits awarded	2 Cr Hrs – 2 Contact Hrs
Course Description (limit 25 words):	The course examines the legal, ethical and managerial roles and responsibilities of architects in the practice of architecture.
Course Goals & Objectives (list):	• Develop understanding of the complex relationship of practicing the architect's profession in Saudi Arabia • Provide knowledge of the legal responsibilities of the architect. • Explain the architect's code of ethics and potential conflicts of interest. • Explain the various legal steps and measures the future architect should consider in order to be eligible to register and practice in Saudi Arabia
Student Performance Criterion/ addressed (list number and title):	B.7 Financial Considerations (understanding) C.3 Client Role in Architecture (understanding) C.4. Project Management (understanding) C.5. Practice Management (understanding) C.6. Leadership (understanding) C.7. Legal Responsibilities (understanding) C.8. Ethics and Professional Judgment (understanding) C.9. Community and Social Responsibility (understanding)
Topical Outline (including percentage of time in course spent in each subject area):	Practicing in professional Organization (5%) Legal Dimensions of Practice, Architects and the Law (5%) Firm development ,Starting an Architecture Firm (10%) Marketing and Public Relations. (10%) Clint Relations. (10%) Human Recourses Management. (10%) Financial Management ,Financial Planning. (10%) Project Definition, Define Project Services. (10%) Project delivering, Programming. (10%) Building Codes and Regulations. (10%) Contracts and agreements, Type of Agreements. (10%) Professional Practice in Saudi Arabia , Case Studies. (10%)
Prerequisites:	ARCH 501 - Advanced Design Studio
Textbooks/Learning Resources:	Textbook: Demkin, J. (Executive Editor), The Architect's Handbook of Professional Practice – Student Edition, The American Institute of Architects, 14th Edition, 2008, John Wiley & Sons, Inc. USA. Textbook: P.Piven, B.Perkins, Architect's Essentials of Starting, Assessing and Transitioning a Design Firm John Wiley & Sons, Inc. USA.2008.
Offered (semester and year):	Second semester / Fifth year
Faculty assigned (list all faculty assigned during the four semesters prior to the visit):	Prof. Gamal Elkholy

4.2. Faculty Resumes

Title & Name: Dr. Ma'ad Abdulrazak Hassan Aldelamy

Courses Taught (2013 – 2017):

ARC 214: Elementary Surveying; ARC 216:Vector Mechanics: Statics; ARC 215: Structural Analysis I; ARC 306: Structural Analysis II; ARC 315:Concrete and Steel Construction; ARC 415: Soil Mechanics and Foundation

Education Credentials:

i) Ph.D., College of Architecture, Urban and Regional Planning, Texas A& M University-College Station USA 1990
ii) Master, in Engineering Management and Technology; Central Michigan University; Mt. Pleasant Mich. USA 1986
iii) B. Sc., Civil engineering, Tri-State University; Angola, Indiana; USA 1985

Teaching Experience:

Professor, College of Architecture and Digital Design, Dar Al Uloom University, 2011- Present
Teaching Fellow, College of Architecture, Department of Urban Planning at Texas A&M Univ. 1987-1990

Professional Experience:

Professor, College of Architecture and Digital Design; Dar Al Uloom Univ.; Riyadh, KSA.,	2011-	Present
Senior Project Manager, North Carolina Department of Transportation;	USA	2005-2011
Senior Professional Engineer, Texas Department of Transportation; Dallas, Texas	USA	1998-2005
Planning Engineer, Al-Rashid Group of Companies, Riyadh; Saudi Arabia	KSA	1992-1997

Licenses/Registration:

Professional Engineer, ID #94346 /Texas Board of Professional Engineers; Austin Texas USA 2004-Current

Selected Publications and Recent Research:

Maad Hassan, (Jan., 2016) Principal author and investigator, "Enhancing Sustainable Architectural Design, "A Case Study of Green Roofs." International Journal of Arts & Sciences' (IJAS) Asian American Conference for Engineering and Technology (Track: Architecture), Thailand.

Maad Hassan, (March, 2016) Principal author and investigator, "Recycling Materials; A Formable Tool In The Sustainable Architectural Design." (IJAS) International Conference for Engineering and Technology; held at Harvard University, Boston, USA.

Maad Hassan, (March, 2015) Principal author and investigator, "A Blend of Magnificent Architectural Design: A Case Study Of The King Abdullah Financial District; Potentials And Challenges." IJAS international conference held at the University of Nevada, Nevada, USA.

Maad Hassan, (2010). Principal investigator, "Assessing the validity of using GIS remote digital imagery along with reconnaissance field surveys to determine and streamline all the engineering and environmental impacts" for all proposed projects. NCDOT.

Maad Hassan, (2009), Principal author, The "Public Involvement Summary Report on the proposed Town of Carthage Bypass in North Carolina". The report emphasized the roll of public involvement in the planning process for the proposed Carthage Bypass. NCDOT.

Maad Hassan,(2009), Principal author and investigator "The Preliminary Corridors Evaluation Study Report" for the Proposed Carthage Bypass, in North Carolina. An extensive study report on the impact of the proposed engineering alternatives for the Carthage Bypass. NCDOT.

Recent research: The Social And Environmental Benefits Of Sustainable Design

Professional Memberships:

Texas Board of Professional Engineers
Member, American Society of Civil Engineers (ASCE). Texas & North Carolina Chapter
Member, Inter-Agencies leadership Team, North Carolina (Projects Policy Improvements)
Former VP and lifelong Member, Urban Planners & Regional Science Group, Texas A&M University

Title & Name : **Prof. Gamal Elkholy**

Courses Taught (2014 – 2017):
ARCH 311 : **Intermediat Design Studio II**
ARCH 314 : **Sanitary and Tech. Installations**
ARCH 402 : **Construction Documents. I**
ARCH 403 : **Housing and Urban Design**
ARCH 412 : **Construction Documents. II**
ARCH 501 : **Advanced design Studio**
ARCH 512 : **Professional Practice**

Education Credentials:

Ph.D.,Architecture and Urban Plaanning Ain Shams University,Cairo,Egypt.& Stutgart University,Germany "Chanel Program'',1995
Certificate , Housing Design,"IAA" International Academy of Architecture-Sofia, Bulgaria, December,1988
M. SC , Architecture Design and Urban Planning, Ain Shams University, Cairo, Egypt, 1988
U.S1 Dipl. ,Urban Survey, International Inst. For aerospace and Human Senses, Enschde,Netherlands,1986
P.G.S. , Architecture Design and Urban Planning, Ain Shams University, Cairo, Egypt,1981 **B.Sc.** , Architecture Design and Urban Planning, Ain Shams University, Cairo, Egypt.1979

Teaching Experience:

2014 Now - Professor of Architecture and Urban Design, Architectural Department Faculty Of Arch. Engineering and Digital Design - Dar A Uloom University, Riyadh, KSA .
2008 Now - Professor of Architecture and Urban Design,Architectural Department Faculty Of Eng.Ain Shams University,Cairo,
Egypt. (Sabbatical Leave).
2003 2008 - Associate Professor,Architectural Department Faculty Of Eng.Ain Shams University,Cairo,Egypt.
1999 2000 - Assistant Professor, United Arab Emirates University, Visitors Professor.
1995 2003 - Assistant Professor Architectural Department Faculty Of Eng.Ain Shams University, Cairo, Egypt.
1993 1995 - Assistant Lecture, Ain Shams University, Cairo, Egypt..
1990 1993 - DAAD, Fellowship Program (Ph.D. Data Collection Ass. By Stuttgart University, Deutschland .
1988 1990 - Assistant Lecture, Dept. of Arch. Faculty of Engineering, Ain Shams University, Cairo, Egypt.
1986 1988 - Full-time Instructor, Dept. of Arch. Faculty of Engineering, Ain Shams University, Cairo, Egypt.
1984 1985 - Post Graduate Studies"The Urban Survey And Human Settlement Analysis With The Use Of Aerial Photography and Remote -
Senses." International Institute For Aero - Space Survey And Earth Science, (ITC) , Enschede, The Netherlands. (Holland).
1979 1984 - Full-time Instructor, Dept. of Arch. Faculty of Engineering, Ain Shams University, Cairo, Egypt.

Professional Experience:

1980 2015 - Principal Partner in Misr Group Consultants" M.G.C."Moustafa &Gamal El.Kholy Consultants Engineering, Architecture, Land-spacing, Urban Planning Group, Cairo, Egypt. Designer of many diverse projects: Residential Multi-Story Buildings, Private Residences and Villas, Resort Houses, Office Buildings, Restaurant, Self Adhesive Products Factory, Government Schools, 5-star Hotel, Hospitals,
2005 2007 - Technical Manager, Mohamed Alsabeg For Study & Consulting Engineering, Riyadh K.S.
2001 2003 - Technical Manager, Abdallah Alsaif & Partner For Study & Consulting Engineering, Riyadh K.S.A
1992 1995 - Head Designer Engineer,"Graner Und Schwartz Buro."Stuttgart- Deutschland,(Sabbatical leave).
1983 1984 - Senior Engineer, Hassan Omar Assad - Consulting Engineering Office, Jeddah, Saudi, Arabia.
Consultant to The Center of Ain Shams University For Consulting Engineering , Faculty of Engineering ,Cairo, Egypt.
Consultant to. The Egyptian Environmental Affairs and traffic Authority The General Affairs of Schools Building, The Egyptian securities. Of the Cairo Airport, The Arab Contracting Company The Giza Traffic Affairs Authority, The Arab Buro, Gskoo Company , The Islamic Banks Group Cairo, Cairo, Egypt. . Technical Manager (TM)

Selected Publications and Recent Research:

" CORRELATION BETWEEN INDOOR ENVIRONMENTAL QUALITY AND PRODUCTIVITY IN BUILDINGS."
" Heritage Cities; The Contribution of Heritage to Sustainable Urban Development, Luxor-Egypt
" The reflection of local and urban social privacy to achieve Architectural privacy
" Preservation of historic cities and sustanble development between theory and pratice.
" The role of the financial and self interaction of Community Participation in developing the city urban context and its environmentalreflections."A Case Study of Alexandria, The 4th International Conference on Architecture & Urbanization at the Outset of the 3rd Millenium, Assut University, Assut, Egypt, Vol…, p….-…., March, 2000.**"**

Professional Memberships:

Member of Scientific Journal Committee, Ain Shams University, Cairo, Egypt.
Member of Egyptian Engineering Syndicate & Architectural Association & Engineering Association .
Member of The Union of Egyptian Architects. (The Society of Egyptian Architects. U.I.A. Egyptian National Section.)
Member of " IAA. " International Academy of Architecture - Sofia, Bulgaria

Title & Name: Assoc. Prof. Anna Laura Petrucci

Courses Taught (2014 – 2016):

ARC 303 Building Construction II
ARC 311 Intermediate Design Studio
ARC 502 Graduation Project Research
ARC 511 Graduation Project

Education Credentials:

2000 – 2003 PhD in Design and Design's Theories, University La Sapienza Roma (I)

1986 – 1994 Bach and Master (Laurea) in Architecture and Urban Design, University La Sapienza Roma (I)

1992 – 1993 Master in Management, Marketing, Journalism and Communication, Enrico Cogno e Ass., Roma (I)

Teaching and Academic Experience:

2014 – present Chair by Department of Architectural Engineering, CADD, Dar Al Uloom University, Riyadh

2014 – present Assoc. Prof., Department of Architectural Engineering, CADD, Dar Al Uloom University, Riyadh

2011 - present Co- Director and Member of Scientific Committee by International Advanced II Level Master in Management of Complex Projects in Architecture (MGPCA), University La Sapienza, Roma (I)/ University Paris Val De Seine, Paris (F)

2002 – 2006 Visiting Professor: University of La Sapienza, Roma (I), University of Camerino, Ascoli Piceno (i), University for Applied Studies in East-lower Saxony (D)

Professional Experience:

2000 - present Owner, Art Director, Sr. Architect by Studio Insieme, architecture, art, design, Ascoli Piceno (I)

2000 - present Consultant for Public Bodies in sustainability, architecture, urban management and participative events (I, D. KSA)

1994 – 2000 Supervising of Building Construction Sites for General Contractors, Berlin (D)

Licenses/Registration:

Licensed as Professional Architect in Italy since 1994

Selected Publications and Recent Research:

author of several books, contributes and articles by Italian and international publishing about urban management, communication and architecture, as books and monographs (13); contributes in books, articles and conference papers (17); reviews of her projects by international publishing and exhibitions (18); supervising Master and Advanced Master Thesis (64).
Hosted and published at Venice Biennale of Architecture (2002) and Venice Biennale for Art (2007)

Most recent works (2014-17):
A.L. Petrucci et.al., Manual for the Public Space of Downtown Ascoli Piceno 2014/15 for UNICAM / Municipality of Ascoli Piceno

A.L. Petrucci et. al., Preliminary study for a streetscape design manual for downtown 2012/14 for UNICAM / Municipality of Ascoli Piceno

A.L. Petrucci, Il luogo dell'Identità sociale_ipotesi allestitive identitarie, 0-96, Aracne Editore (in press)
A.L. Petrucci, Rituals, Exhibition, Architectures for the urban scene, 0-96, Aracne Editore (in press)

Professional Memberships:

Centro Studi Internazionale per l'Architettura e l'Ambiente (CSIAA) since 2000

Name: Associate Prof. **Mustafa Ramadan**

Courses Taught (2014 – 2017):

- DES 112 : Descriptive Drawing 2
- ARC 202 : Building Construction 1
- ARC 501 : Comprehensive Design Studio 2
- ARC 502 : Graduation Project Research

Education Credentials:
Ph.D., in Architecture, Egypt, 2005.
Master in Architecture, Egypt 2001
B. Arch. (grade Distinction, top of Egypt Graduates of 1997).

Teaching Experience:
Assistant Prof. Chairman, Misr High Institute for engineering and technology- Mansoura- 10/2006.
Assistant Prof. Faculty of Architecture, Dar Al Uloom University 2010 – 2011. (Vice-Dean)
Associate Prof. Faculty of Architecture, Dar Al Uloom University Sept. 2011 till today.

Professional Experience:
Educational Building: New building in Misr high Institute for engineering and technology in Mansoura, 1600m2 area, Contains from : basement, ground floor and six floors. Supervision on the architectural works and the special finishing for the different floors (2008-2010).
Residential buildings project for design 2 residential buildings including 48 apartments and 28 villas for the staff in Dar Al Uloom University – Al Falah district-Riyahd 2011.

Symposiums, Workshops and graduation projects:
lecturer in the first scientific symposiums in Misr High Institute for engineering and technology- Mansoura- Egypt- under the title: (Architecture and Urbanism……. Land, human and compatibility).
Attendance and sharing in the (special workshop about strategic plan for Dar Al Uloom University) 26th may 2011- Dar Al Uloom University - Riyadh – KSA
Attendance and sharing in the (World Heritage Day- Legacy of the past for the present) 16-18 April 2013- Dar Al Uloom University - Riyadh – KSA.
Licenses/Registration:
Not Applicable

Selected Publications and Recent Research:
Ph.D. Research: " Egyptian Experiences in development of non-official regions in urban (Learned lessons and good practices) " 2005
Master Research: "Constants and Determinants of residential spaces in contemporary 2001
First research:
Individual research under the title: " Activating the role of architectural designer in producing Compatible local architecture (monitoring and documentary for project of cultural garden for children in El-Saida Zeinab as one of the urban development projects) international conference architectural engineering department ARUP2006
Second research:
Cooperative research "Researching view to put the Architectural Education in the prospects of creative, innovation and distinguished" published in international conference _Arch Cairo 2007.
Third research:
Individual research " Connection between theory and application for activating the practice role in the architectural designing" publishing research in the events of ninth international engineering AEIC 2007
Fourth research:
Individual research under the title" Characteristics of the environmental design in the Islamic architecture between originality and contemporary" international for architectural engineering _ARUP2008
Fifth research:
Individual research under the title " Compatibly between architecture and the resources of the renewable energy (criticism view for using the wind energy in buildings)" published research in the engineering research magazine ERJ 2010 -in faculty of engineering in Menofia university
Six research:
Individual research" Towards better future in the maintenance works in the residential buildings in Egypt " published in magazine of architectural and planning - architectural engineer in Arab Beirut university 2010.
Seven research:
Joint research with title: "Towards a creative design ideas in contemporary Arab architecture "International Conference for Architecture in architectural design. Turkey, Istanbul - May 2014.
Eight research:
Individual research under the title: Towards Healing Environment For The Inpatient Unit In Psychiatric Hospitals, International Engineering (ICASCE'16) London – United Kingdom (March 26-27, 2016).
Ninth research: *TRADITIONAL MARKET DESIGN TOWARDS COHESION BETWEEN SOCIAL SUSTAINABILITY AND BIOCLIMATIC APPROACH_* WMCAUS 2018 which will be held in Duo Hotel Congress Centre, Prague, Czech Republic On June 2018.

Professional Memberships: Member in Egyptian Engineering Syndicate.

Title & Name: Associate Professor/ Yasser E. Fouda
Courses Taught: (2016 – 2017):

ARCH 304 Landscape & Site Planning
ARCH 411 Comprehensive Design Studio II
ARCH 412 Construction Documents II

Education Credentials:

2000 – 2005 Post-Doctoral Studies: Assistant Professor of Urban Planning and Architecture - Tanta University, Tanta, Egypt
1993 – 1999 Ph.D. in Urban and Environmental Planning - Slovak Technical University, Bratislava, Slovakia
1993 – 1993 Diploma of Environmental Studies - University of York, York, United Kingdom
1989 – 1992 M.Sc. in Environmental Studies - Alexandria University, Alexandria, Egypt
1983 – 1988 B.Sc. in Architectural Engineering - Alexandria University, Alexandria, Egypt

Teaching Experience:

- Assoc. Professor of Architecture & Urban Planning, College of Architectural Engineering and Digital Design CADD, Dar AlUloom University, Riyadh, Kingdom of Saudi Arabia, from 09/2016 till 02/2017 (Present)
- Assoc. Professor of Urban Planning & Architecture, Faculty of Architectural Engineering - **Beirut Arab University**, Beirut, Debbiye, Lebanon, from 08/2014 till 06/2015
- Deputed Assoc. Professor of Urban Planning & Architecture, College of Engineering and Technology- Department of Architectural Engineering and Environmental Design - **Arab Academy of Science and Technology and Maritime Transportation**, Alexandria, Egypt, from 03/2013 till 07/2014
- Deputed Assoc. Professor of Urban Planning & Architecture, Department of Architectural Engineering - **High Institute of Engineering and Technology**, in Behera, Egypt, From 03/2013 till 07/2014
- **Assigned as the Head of Department of Architectural Engineering, Faculty of Engineering - Tanta University,** From 10/2008 till 02/2010
- Deputed Lecturer of Urban Planning - Department of Environmental Studies - Institute of Graduate Studies and Research - Alexandria University, Alexandria, Egypt, From 03/1999 till 02/2010
- University Staff as an Assistant Lecturer - Department of Architectural Engineering - Faculty of Engineering -Tanta University - Tanta, Egypt, From 12/1994 till present time with several promotions till "Associate Professor"

Professional Experience:

- DAR Engineering, Riyadh, KSA - "Design Team Leader / Project Manager"… Management /Design of Medical Projects, From 11/2015 till 11/2016
- Zuhair Fayez Partnership, Jeddah, KSA – " Site Manager of Management Programming"… Management of the implementation and supervision of the new male medical campus (Phase II, Planning and Designs) in site of "King Khaled University" in AlFaraa', Abha, KSA, From 05/2011 till 07/2012
- Zuhair Fayez Partnership, Jeddah, KSA - "Manager of Management Programming" … Tracking, Monitoring, and Managing a wide number of projects, through the Department of Medical Projects, From 02/2010 till 05/2011
- The project: "Research Vivarium" - For the benefit of "Tanta University" Tanta, Egypt. A comprehensive study for the environmental, planning and Architectural Design possibilities. Singular in the specification. From 05/2009 till 02/2010
- Urban Planning and Architectural Consultant for: "Center of Research and Engineering Consultancy", Faculty of Engineering - Tanta University, Tanta, Egypt. From 07/2000 till 02/2010
- Environmental Impact Assessment for Solid Waste Disposal Facility of the "6th of October" City, Egypt. For the benefit of "System of Environmental Affairs", Egypt, 04/2003.
- The project: "Development of Egyptian Villages, and Preparation of Pilot Urban Plans", for "The General Authority of Urban Planning" and "Ministry of Housing, Utilities, and Urban Communities" Re-planning of 5 villages of "Samannoud" province, Gharbia Govern., Egypt, From 05/2002 till 5/2003
- The Project: "Sustainable Management of Scare Recourses in Coastal Zones" (SMART) Collaborating 4 Arab countries and 5 European countries, with the European Union. Contract No.: ICA3-2001-2003, http://www.ess.co.at/SMART/, From 05/2003 till 02/2005

Licenses/Registration:

- **The Saudi Council of Engineers "SCE" (Consultant) -** Riyadh, KSA - Membership: Consultant Architectural Engineer - Member Number: 51949
- **Engineers Syndicate (Consultant) -** Cairo, Egypt - Membership: Urban Planning and Architectural Consultant Engineer - Member Number: 2293/2

Selected Publications and Recent Research:

- **"A GIS-Based Approach for Auditing Sustainable Development of New Industrial Communities: The Case of "New Borg El Arab" City, Egypt" 11 January, 2016 - APJ, " Architecture and Planning Journal " - Publisher: Faculty of Architectural Engineering, Beirut Arab University BAU, Beirut, Lebanon**
- **"A Criterion for Measuring Urban Intelligence" 06 February, 2015 - APJ, " Architecture and Planning Journal " - Publisher: Faculty of Architectural Engineering, Beirut Arab University BAU, Beirut, Lebanon**
- **"The Role of Physical Planning Procedures and Architectural Aspects in Maintaining Urban Form Sustainability" 01 December, 2013 - International Journal of Sustainable Building Technology and Urban Development - Publisher: Taylor & Francis**
- **"Formulation of A Sustainable Development Methodology for Tanta City- Egypt, in Guidance of Local Development Experiences and their Positive Role in Managing the Urban Environment" 20 : 22 December, 2008 – 7th Int. Conference: Role of Engineering Towards a Better Environment "RETBE'08" - Faculty of Engineering - Alexandria University**
- **"Sustainable Development of the Coastal Area of Abu Qir Bay, Egypt" 04 : 07 January, 2006 - The First International Conference on: Environmental Change in Lakes, Lagoons, and Wetlands of the Southern Mediterranean Region**

Professional Memberships:

- **Association of Egyptian Architects -** Cairo, Egypt - Membership: Full Member Architect ID Number: Egy 65.88.AX-13.2.394-13.2.394-ASM
- **The Saudi Council of Engineers "SCE" (Consultant) -** Riyadh, KSA - Membership: Consultant Architectural Engineer - Member Number: 51949
- **Engineers Syndicate (Consultant) -** Cairo, Egypt - Membership: Urban Planning and Architectural Consultant Engineer - Member Number: 2293/2
- **Syndicate of Engineers (Architect) -** Alexandria, Egypt - Membership: Architectural Engineer - Member Number: 3225/10
- **Former Head of Department of Architectural Engineering -** Faculty of Engineering, Tanta University, Tanta, Egypt
- **Representative of the "Quality Assurance and Accreditation Project" (QAAP), for the** Department of Architectural Engineering, Faculty of Engineering, Tanta University, in: Project Coordinator for the Dept. of Architectural Engineering, and Member of the Executive Team.

Title & Name: Dr Abdulaziz Mhadi Abu-Sulaiman

Course Taught (2015-1017) :

Arc 411 Comprehensive Design Studio II
Arc 502 Graduation Project Research

Education Credentials:

Ph.D. in City and Regional Planning, Graduate School of Fine Arts, Department of City and Regional Planning, University of Pennsylvania, Philadelphia, USA. 1996
M A in Architecture, M A in City Planning (a joint degree program), The Graduate School of Fine Arts, Urban Design Program, University of Pennsylvania, Philadelphia, USA. 1988
Bachelor of Engineering in Architecture, Department of Architecture, King Saud University, Riyadh, Saudi Arabia.1983

Teaching Experience:

Assistant Professor at Umm-al-Qura University , School of Engineering and Islamic Architecture, Department of Islamic Architecture in Makkah, Saudi Arabia. 1996 -1998
Assistant Professor at King Saud University, School of Architecture & Planning, Department of Urban Planning, Riyadh, Saudi Arabia. Worked as an instructor of Architectural Design and Urban Planning studios. Instructed courses in undergraduate and Masters level. Courses included: Design Principles of Urban Planning in Desert Areas, Urban Renewal, Landscape Architecture, and graduation (capstone) projects. 1998 - Present
Head of Architecture Department, College of Architecture and Planning, King Saudi University, Riyadh. 2013-2016
Dean, College of Architectural Engineering and Digital Design, Dar Al Uloom University, Riyadh, Saudi Arabia. 2016-2017

Professional experience:

A consultant and senior urban designer for the Urban Renewal of the Arab Oil Company (ARAMCO) site in al-Khafji, Saudi Arabia. Work conducted in association with Otaishan Engineering Consultants. 2000-2001
A consultant to Amanat Arriyad (Riyadh Municipality). Designer of The Horse Racing Club & City Park, al-Malaz District, Riyadh. Saudi Arabia. Project conducted in association with Otaishan Engineering Consultants. 2001-2002.
A consultant to Arriyad Development Authority. Leader of research team for a comprehensive study entitled: “Regulations for Housing Land Subdivisions”. Work commissioned by King Abdullah Center for Consultancy & Research Studies. King Saud University, Riyadh. 2004-2005
A Consultant to National Center for Assessment “Qiyas” for the national study entitled: “Architectural Professional Standards for the Kingdom of Saudi Arabia”, a principal author and coordinator of the study team, 2015-2016

NAME: PALMA CARAZO, Ignacio Javier de Jesús
DAR AL ULOOM COURSES TAUGHT (2015 – PRESENT)
DES – 102 “Descriptive Drawing” ARC – 401 “Comprehensive Design Studio I”

ARC – 211 “Architecture Design” ARC – 404 “Environmental Control”
ARC – 301 “Intermediate Design Studio I” ARC – 406 “Lighting and Acoustics”
ARC – 314 “Sanitary and Technical Installation” ARC – 412 “Construction Document II”

ACADEMIC TRAINING
2002 College of Architecture, University of Navarre (Pamplona, Spain). PhD in Architecture (Arch. Design and Engineering). European Qualifications Framework: Level 8 (EQF-8).
2000 College of Architecture, University of Navarre (Pamplona, Spain). Research Aptitude Diploma (EuropeanDiploma of Advanced Studies, DAS).
1996-2013 Several professional courses/diplomas and seminars received (700 theory teaching, practice or equivalence hours) about architectural, constructive and environmental topics.
1996 College of Architecture, University of Navarre (Pamplona, Spain). Higher Degree (B & M equivalent) in Architecture (Arch. Design and Arch. Engineering) and Town Planning.
European Qualifications Framework: Level 7 (EQF-7).

ACADEMIC AND TEACHING EXPERIENCE
2015-2017 Full time Assistant Professor in Dar Al Uloom Univsersity DAU, Riyadh (KSA).
2002-2012 Part time architectural PhD, Master and Bachelor university, and non university lecture teaching of several courses on environmental architecture, energy & efficient design, and facilities themes in Spanish universities and Arch. & Eng. professional associations and councils.
Papers & Speaker at technical conferences on issues of sustainability in architectural design.
2001-2002 Part time Teacher Assistant in University of Navarre UN, Pamplona (Spain).

RESEARCH EXPERIENCE – PUBLICATIONS: BOOKS PUBLISHED
2008 Original title in Spanish: Sistema de Plataforma con Entramado Ligero de Madera “Platform frame”, aplicado a Viviendas Unifamiliares. Cumplimiento del Código Técnico de la Edificación (Translated as: Platform Frame Systems Applied to Single Family Housings. Compliance with the Spanish Technical Building Code).
Publisher: Bellisco Ediciones Técnicas y Científicas, Madrid (Spain), 511 pp. ISBN: 978-84-96486-72-0
2003 Original title in Spanish: Las Aguas Residuales en la Arquitectura Sostenible: Medidas Preventivas y Técnicas de Reciclaje (translated as: Wastewater in the Sustainable Architecture: Preventive Measures and Techniques for Recycling). Publisher: Ediciones Universidad de Navarra EUNSA, Navarre (Spain), 388 pp. ISBN: 978-84-31320-78-2

PROFESSIONAL EXPERIENCE AS ARCHITECT
1998-2015 Working on own account (self-employed), design functions, executive project development (tech. works in Architectural, Constructive, Structural & Facilities sets) and project management. Other jobs as technical & environmental reports.
2005 Arch. Contest & Awards: Contest winner (First place) and subsequent design and construction management of 12 terraced dwelling (Government Grant) in 4 low-rise residential development, and open spaces.
2000-2010 Working as external consultant or freelancer in project teams with Spanish companies and architectural
firms/Studios. Functions have been performed design, development executive/implementation projects and, sometimes, support to the project management. Advice on technical and environmental issues.
1996-1998 Working practice and assistantship in Spanish architectural firms/studios.

MEMBERSHIPS & ACCREDITATIONS
2012-2017 No. 2809 accredited as Certified Passive House Designer (zertifizierte Passivhaus-Planer, Passivhaus Institut– Darmstad, Germany) after passing the exam on December 7, 2012.
1997-2017 No. 3455 registered architect of the Basque-Navarrese Architectural Council COAVN; and charter member No. 311618 of the Higher Association of Architectural Councils of Spain CSCAE (membership of the International Union of Architects UIA, and the Architects Council of Europe ACE

Title & Name: Dr. Ali El Shazly

Courses Taught (2015 – 2017):

ARCH 312 Architecture of the Arabian Region
ARCH 413 Humanities in Architecture

Education Credentials:

2004 – 2006 Post-Doctoral (JSPS) – Environment & Technology Division, Hitotsubashi University,Tokyo
1996 – 2000 Doctor of Engineering – Graduate School of Engineering, Dept. of Arch., Nagoya University, Japan
1994 – 1995 Masters Degree – Oxford School of Architecture, Oxford Brookes University, UK
1987 – 1992 Bachelor of Arch & Building Science (GPA 4.11/5.00) – King Saud University, Riyadh, Saudi Arabia

Teaching Experience:

2012 – present Assoc. Prof., Department of Architectural Engineering, CADD, Dar Al Uloom University, Riyadh
2002 – 2006 Visiting Assistant Prof., Environment and Technology Division, Hitotsubashi University, Tokyo

Professional Experience:

2000 – 2010 Participant in international projects by Hitotsubashi University in Tokyo (funded by the Japanese Government)

Licenses/Registration:

Consultant Engineer (Architecture) – Saudi Council of Engineers – Registration no.105096

Selected Publications and Recent Research:

A. El Shazly, E. Iwasaki, G. Yutaka & K. Hiroshi "Regional Diversity and Residential Development on the Edge of Greater Cairo – Linking Three Kinds of Data – Census, Household Survey and Geographical Data – With GIS to Greater Cairo," in the book *"GIS-based Studies in the Humanities and Social Sciences,"* CRC - Taylor & Francis, UK, 2006, pp.191-210. (Editor: Prof. Atsuyuki Okabe, Graduate School of Urban Engineering & Director of GIS Center of Japan, University of Tokyo) (ISBN 0-8493-2713-X)

A. El-Shazly "On the Chronological Transformation of 'Place des Consuls' in Alexandria," *Journal of Architecture, Planning and Environmental Engineering, The Architectural Institute of Japan*, Vol. 531, May 2000, pp.195–203.

Recent research: Space Syntax

Professional Memberships:

Architectural Institute of Japan
International Seminar on Urban Form (ISUF), UK

Title & Name: Assile Abou Diab, Ph.D

Courses Taught (2016_2 – 2017_1):

ARC 216: Statics
ARC 306: Structural Analysis II
ARC 305: Materials and Building Construction System
ARC 315: Concrete and Steel Construction
ARC 415: Soil Mechanics and Foundation Engineering

Education Credentials:

Ph.D. in Civil/ Geotechnical Engineering, American University of Beirut, Lebanon 2017.
Master in Civil/ Geotechnical Engineering, Lebanese University, Lebanon 2013.
B. Sc. Civil engineering, Lebanese University, Lebanon 2012.

Teaching Experience:

Assistant Professor, College of Architecture and Digital Design, Dar Al Uloom University, KSA 2016_2 - Present
Part time lecturer, Le Cnam, Lebanon 2014_2 & 2015_2
Professional Experience:
Geotechnical Engineer, Consultancy group co., Hamra, Lebanon. July 2015 – April 2016
Civil Engineer, Civil Consultancy Engineering Group, Sin El Fil, Lebanon. August 2012 – December 2013

Selected Publications and Recent Research:

1. Abou Diab, A., Sadek, S., Najjar, S., and Abou Daya, M. (2016). "Undrained Shear Strength Characteristics of Compacted Clay Reinforced with Natural Hemp Fibers." International Journal of Geotechnical Engineering, 10(3), 263-270.
2. Abou Diab,A., Najjar,S. and Sadek,S. "The Effectiveness of Shear Strength Prediction Models for Fiber-Reinforced Clay." Civil Engineering Conference in the Asian Region (CECAR7), Hawaii, August 30 – September 2, 2016.
3. Abou Diab,A., Najjar,S. and Sadek,S. "Reliability-Based Design Applications for Fiber-Reinforced Clay." Geotechnical Frontiers 2017, Florida, USA, March 12-15, 2017.

Professional Memberships:

Order of Engineers and Architects, Beirut, Lebanon 2013- current

Title & Name Assistant Professor DR. Ibrahim A. Aljutaily

Courses Taught (2016-2017)

ARC. 304 Landscape & Site Planning

ARC.401 comprehensive Design Studio I

ARC.403 Housing and Urban Design

ARC.414 Principles of Urban Planning

ARC 413 Humanities In Architecture

ARC 213 History Of Architecture

ARC 201 History of Architecture

2004-2008 Doctor of philosophy in urban planning and Geography, King Saud University K.S.A

1988-1990 Master's Degree In Housing and Urban Affairs, Norfolk State University, Norfolk

Virginia, U.S.A.

1979-1983 Bachelors of Urban Development and Real Estate, Syracuse University, Syracuse,

New York, U.S.A.

Teaching Experience:

2001- 2015 taught some courses at King Saud University and assisted field training Students

Professional Experience:

1984- 2015 worked With the Ministry of Municipal and Rural Affairs following up Projects and

Working in assisting the ministry in solving daily planning problems. While working with the ministry Of Municipal

and Rural Affairs I teaching at king Saud University and following up training Students from king Saud University .

problems Such as Transportation ,Land and property land use, maps provision of utilities and services,

Urban Indicators, following Planning projects for most of the Regions and cities in the kingdom Of Saudi Arabia .

Dealing with every day Urban problem and Designing Solutions , and advising ministries to implement The best solutions to problems.

During The period I Worked I have Attended many Local And National And International conferences, and workshops related to the urban planning

Selected Research : Worked with teams to prepare researches , worked With team for preparing The Urban Boundaries for cities In Such as Urban Boundaries for cities in the kingdom , I worked With team for preparing National Urban Strategy , Urban Indicators I worked With team for Establishment Of Urban Observatory in all the regions in the kingdom of , providing the utilities and Services

Name: **Assistant Professor/ Donia Abd-ElGawad Mohamed**

Courses Taught (2017-2018-2nd semester – Present):

ARC 401: Comprehensive Design Studio
ARC 314: Sanitary and Technical Installation"
ARC 211: Architecture design I
ARC 202: Building construction I
ARC 212: Graphic Communication
ARC 304: Landscape and Site Planning
DES 112: Descriptive Drawing II

Education Credentials:

i) Ph.D., College of Architecture, Alexandria University- Faculty of Fine Arts. **EGYPT** 2016.

ii) Master, College of Architecture, Alexandria University- Faculty of Fine Arts. **EGYPT** 2007.

iii) B. Sc., College of Architecture, Alexandria University- Faculty of Fine Arts. **EGYPT** 2001.

Teaching Experience:

Assistant professor, College of Architecture and Digital Design, Dar Al Uloom University, KSA, 2017.
Assistant professor, College of Architecture, Alexandria University-Faculty of Fine Arts, EGYPT, 2017.
Lecturer, Prince Sultan University, Architecture and Interior Department, KSA, 2008-2016.
Assistant lecturer, College of Architecture, Alexandria University-Faculty of Fine Arts, EGYPT, 2001- 2007

Professional Experience:

Professor, College of Architecture and Digital Design, Dar Al Uloom University, KSA, Sep. 2017.

Assistant professor, College of Architecture, Alexandria University-Faculty of Fine Arts, EGYPT, 2017.

Lecturer, Prince Sultan University, Architecture and Interior Department, KSA, 2008-2016.

Assistant lecturer, College of Architecture, Alexandria University-Faculty of Fine Arts, EGYPT, 2001-Present.

Architect, Saudi urban and architecture consultants' office, EGYPT - 2000-2003.

Licenses/Registration:

Professional Engineer, ID #4/1504944/2001/4, Egyptian Engineers Syndicate; Egypt, 2001-Current.

Selected Publications and Recent Research:

1. *AbdElgawad, D. , **"Affordable housing in third world, smart economic "**faculty of fine arts , architecture department , Egypt .under study.*
2. *AbdElgawad, D., "**Alexandria city 'rescue Data base for smart growth"** faculty of fine arts , architecture department , Egypt .2017 under publishing.*

Professional Memberships:

Member, The Society of Architects since 2001 – till present.

Member, The Syndicate of Egyptian Engineers 2003 – till present.

A member of Tohoty society for Egyptian studies 2006.

Title & Name: Assistant Professor. Hind Abdel Moneim Khogali Osman, PhD.

Courses Taught (2011 – 2018):

ARCH 211 Design Studio one
ARCH 201 History of Architecture one
ARCH 213 History of Architecture 2
ARCH 312 History of Arabian Region
ARCH 313 Theory of Architecture 2
ARCH 401 Comprehensive Design Studio
ARCH 404 Environmental Control

Education Credentials:

2013 – 2018 **PhD.** In Architecture Philosophy in "Sustainable Eco Buildings Assessment Methods in Hot Dry Climate", Khartoum University (UOFK), Faculty of architecture.
2002– 2005 **MSc**. "Environmental Studies", Khartoum University, Khartoum, Sudan, Faculty of Architecture.
1989- 1994 **BSc** in "Architecture Engineering", Ain Shams University.

Teaching Experience:
2010 – Present Assesstant professor, Dar Al Uloom University, Riyadh/KSA
2006-2009 Lecturer, Future University /Khartoum/Sudan
2005-2006 Lecturer, Khartoum Aviation Academy/Khartoum/Sudan

Professional Experience:
2017-2018 Consultant Architect. Saudi Council of Engineering, 2014-2018
2009-2017 Specialist Architect, Dr.Yagoub Atta Al Mannan, private sector
2005-2009 Specialist Architect, Al Ausala consultant company, private sector.
2002-2005 Architect, Manager, Adakai Steel Factory for steel and prefabricated buildings,
1994-2002 Architect, Dar Consult (Khartoum Development Consulting Authority), at Architecture Design Department.

Licenses/Registration:
2010-2018 RIBA Membership, No.20020157
2014-2018 Saudi council of Engineering, in 2014, License No.188989 -current
2009-2018 Sudanese Engineering Council, in 2009, Sudanese architectural Eng. society, License No.EC/ER/SE/1388-current

Selected Publications and Recent Research:
(Abdelmoneim, H., 2015). Impact Of Khartoum Refinery Waste Water Pollutants on The Environment, Pinnacle Educational Research & Development Journal, (ISSN: 2360-9494), Acceptance, Vol. 3 (8), Article ID perd_214, 809-818, October-2015.Conference proceeding with Saudi Green Building Forum.

(Abdelmoneim, H., 2016). Impact Of Khartoum Refinery Gaseous By-Products on The Environment, Pinnacle Educational Research & Development Journal, (ISSN: 2360-9494), Acceptance, Vol. 4 (1), Article ID perd_214, 809-818, October-2016.

(Abdelmoneim, H., 2016) Comparison of four Global Sustainable Building Rating Systems; with Focus on hot dry climate ., ISSN 1913-9071 (Online), Acceptance, Vol. 9, No. 1, February 2016, Canadian Research Center, Canada

(Abdelmoneim, H., 2017). Development of Heritage places under UNISCO Guide line for Heritage places, JInternational ournal of Global Sustainability, ISSN: 1937-7924 (online), USA

(Abdelmoneim, H., 2017). Sustainable Eco Neighbourhood, Assessment Methods for the Evaluation Residential Neighbourhood in Khartoum conference proceeding, Applied Science Univercity & Cardif University, 6-Nov-2017

(Abdelmoneim, H.,2018).Sustainable Eco Building Assessment Methods for Evaluation Residential Neighbourhood in Greater Khartoum, conference proceeding, Victoria University, NICH, A0ril-2018

Book 1: (Abelmoneim, H.2017).Environmental Impact of Pollutants Waste Water at Khartoum Refinery, Scholar Press, Germany. ISBAN 978-3-659-83897-2
Article-Uloom Al Dar megazine. 2018, Environmental Impact of Pollutants Waste Water at Khartoum Refinery, Dar Al Uloom university

Professional Memberships:
U.S.G.B.C , United State Green Building Council (USGBC) in 2010, No. 147424682201241UNICCO Chair of Environment /Khartoum, 2000

Title & Name: Lilas Mansour, PMP

Courses Taught (2016-2017):

- ARC 301: Intermediate Design Studio I
- ARC 502: Graduation Project Research
- ARC 311: Intermediate Design Studio II
- DES 111: Design foundation II
- ARC 412: Construction documents II
- ARC 212: Graphic communication
- ARC 511: Graduation Project
- ARC 512: Professional practice

Educational Credentials:

- PMP Project management professional, PMI institut in USA 2017
- Autocad, ACP Autodesk certified professional , AUTODESK 2017
- B.Sc. in Architectural Engineering, University of Damascus 1999

Teaching Experience:

2016 – Present: instructor of Architecture, Dar Al Uloom University (DAU), Riyadh.
2000 – 2001 UNRWA's Damascus Training Center (DTC)-Damascus .teaching architectural diploma& interior design

Professional Experience:

2015 - 2016: ACE/ AbdulRahman Al-Naim consultant engineers-Saudi Arabia.
2014 - 2015: Damas united international est-Saudi Arabia .
2013 - 2014 Yellow Star company /Ameera design office-Saudi Arabia.
2012 - 2013 Afniah Consultants-engineers- Saudi Arabia.
2007 - 2011 Halcrow Group / international company-Syria.
2005 - 2007 General Company for Design and Technical Consultation-Syria.
2003 - 2005 Geotechnical Engineering Unit of Dr. Abd-Rahman Mansouri-Syria.

Professional Memberships:

Consultant Engineer (architecture) - Syria Council of Engineers
Membership of Saudi council of engineers (Membership Id: 256337

Name and Title: MAJID ELABD MARU, Ph.M., M.Arch., AfH.

Courses Taught:

2013-present

- ARC 301: Intermediate Design Studio
- ARC 401: Comprehensive Design Studio
- ARC 402: Construction Documents I
- ARC 404: Environmental Control
- ARC 303: Building Construction II
- ARC 213: History of Architecture II
- ARC 302: Theory of Architecture
- ARC 201: History of Architecture I

Educational Credentials

Philosophy Master (**Ph.M.**) in Hospital Design, Medical Architecture Research Unit (**MARU**), London South Bank University **Britain 2008**

Master in Healthcare Facilities Planning and Design (**M.Arch.**), London Metropolitan University **Britain 1995**

B.Sc. in Architectural Engineering, University of Mosul **Iraq 1991**

Teaching Experience

2013 – present: Lecturer of Architecture, **Dar Al Uloom University** (DAU), Riyadh. **KSA 2013-Present**

1995-2001: Lecturer of Architecture, **London South Bank University**, England. **Britain 1995-2001**

Modules Taught

- Year 1: Construction Practice
- Year 2: Architectural Design Procedures
- Year 4: Architectural Design Project

Professional Experience

2009-2013: Healthcare Architect, *Nightingale Architects LTD*, London. **Britain 2009-2013**

2001 – 2009: Owner and Director of a successful British architectural firm, e*Buildings LTD*, London. **Britain 2001-2009**

Selected Publications

- Majid Elabd, (April 2014), *Rethinking hospital design in light of Health Care IT Integration,*
- Majid Elabd, (April 2005), *Designing New Healthcare Facilities Around Modern Information Technologies – Implementation and Implications. A case study of the Trauma Care Centre, Denver Health and Hospitals (DHH).* London South Bank University Scientific Journal, 26(5), 97-101. **London, Britiain**.

  presented in the Second Saudi Forum for Planning and Design of Hospitals, Riyadh, **KSA**.
- Majid Elabd, (April 2009), *Remote Medical Consultations in Northern Norway – What Specialties remained for the OPD?* Presented and published in the proceeding of the HaCIRIC09 2nd Annual Conference of the Health and Care Infrastructure Research and Innovation Centre, Improving healthcare infrastructures through innovation, **Brighton, Britain**.

Professional Memberships

Member of the *Architects for Health* **(AfH)** association, London, **Britain 2007-Present**

Name and Title: Noha Ibrahim Qassab

Courses taught (2015-present):

ARC 211: Architecture Design I
ARC 501: Advanced design studio
ARC 406: lighting and acoustics

ARC 403: Housing and urban Design
ARC 412: Construction document II
DES 102: Descriptive drawing I

Educational credentials:
i) Master's degree in industrial engineering management from Beirut Arab university LEB 2008
ii) Master's degree in Architecture, Lebanese university LEB 2002
iii) Bachelor in engineering Architecture from the Lebanese university- Lebanon LEB 2000

Teaching Experience:
Lecturer, Architectural department, DAU 2015-present
Lecturer, architecture, economics, management, Esnad educational foundation, KSA 2008-2013
Lecturer, Engineering and Management department, Beirut Arab university 2004-2007

Professional Experience
Partner with Al Jamal and Zakaria office, Lebanon 2003-present
Consulting, Zakaria engineering office in Lebanon 2009-2014
Manager and designer in Al Jamal construction company in Lebanon 2003-2007

Licenses/Registration
Engineer, ID number 5361 / order of Lebanese Engineering council 2003-present

Selected Publications and Recent Research:
Economics in heritage building, Alriyadh city situation and vision
Housing in Al Riyadh 2016
Improving Al Riyadh city 2015
Gdp in Qatar and influence on Architecture 2015
Unemployment in Spain 2014
Mobily company analysis and solutions 2013
Saudi Arabia economy overview 2013
Scarcity in Pakistan 2012
Islamic economy analysis 2011
GCC economic growth, inflation and unemployment 2009
Distance learning in Saudi Arabia 2008
Historical city in Tripoli Lebanon situation and vision 2005
The History of Architecture in Akkar Lebanon 2003

Professional Memberships:
Member, order of Lebanese Engineering council, Tripoli- Lebanon 2003-present.

Title & Name: Anas Hussein B.Arch,MSc

Courses Taught:

•DES102-Descriptive Drawing I

•ARC211-Architecture Design I

•ARC303-Building Construction II

•ARC406-Lighting and Acoustics

Education Credentials:

2016 - 2017 Master of Science Sustainable Buildings & Environments. Newcastle University , UK.

2008 - 2013 Bachelor of Architecture (B.Arch.) King Saud University - Riyadh. K.S.A.

Teaching Experience:

Jan 2018 - Current Lecturer of Architecture, Dar Al Uloom University (DAU), Riyadh.

Sep 2013- Dec 2017 Teaching Assistant, Dar Al Uloom University (DAU), Riyadh.

Professional Experience:

Jun 2012 - Sep 2012 Intern Architect Arabian office for Engineering & Consulting Riyadh.

June 2011- July 2011 Intern Architect at Internazionale Marmi e Macchine Carrara Spa Italy.

Licenses/Registration:

Architect – Saudi Council of Engineers – Registration no.155977

Professional Memberships:

International Building Performance Simulation Association - England.

Saudi Healthcare Architects- Saudi Umran Society.

Jabran Zaffar Khan
Mobile: 00966583503578
E-mail: jibran@dau.edu.sa

Courses Taught:
DES 103 : Digital Photography and Image Processing (2)

ARC 212 : Graphic Communication (3)
ARC 316 : 3D modeling and Rendering (3)

Education

2008-2009 MSC in Multimedia Engineering from Nottingham Trent University (UK)
2005-2007 BSC in Multimedia from Nottingham Trent University (UK)

Awards:

Best lecturer of the year (2015) at Dar al Uloom University.

Areas of Expertise

Teaching, Training staff, 3d architectural modeling, Rendering, 3D animation, 3d walk through, 3D game modeling, Story Board writing, 2D graphics, Print Media Graphics, Info-graphics, Adobe suite CS5, Visual Effects, Video Editing, Website template design, Web development, Flash based games, Leadership, Research.

Programming Languages:

Action Script 3, HTML, Java Script (Basic), Python (Basic)

Experience

Name of company: Dar Al Uloom University
Nature of work: Working as a lecturer/Chair of digital Design, College of architecture. (2013-present)
Teaching 3D Architectural modeling, Rendering, Animation, Digital Design, Presentation Skills).

Name of company: Faces Production
Nature of work: Partner of a software and Production company , (2013-present)

Freelance work for 3d modeling/animation, print media, Website development and design.

Name of company: Areena Multimedia (2009-2012)
Nature of work: Worked as a Lecturer.
Teaching latest multimedia packages (3d animation, graphic designing, architectural modeling, web designing, product designing, etc.).

Ongoing Research:

1). From number of years Nottingham Trent University has been involved in researching and developing the applications for three-dimensional (i.e. binocular stereoscopic) techniques for the airport security for passenger baggage inspection. This research is sponsored by UK Home Office based at Nottingham Trent University. I am a part of an investigation which was not tested before but theoretically is achievable. I had to produce stereo images of rotating cylindrical objects (like bullets, cartridge etc) associated with line-scan system. This type of system is suitable where we require inspecting the 360 degree view without losing the circumferential resolution of the object providing us the ability to extract three-dimensional coordinate information.

2). Developing an application for students with learning difficulties and sensory impairments to teach math. With the help of this app, students will be able to calculate simple arithmetic operations like addition and subtraction etc.

3). Developing an application for MBBS students, simplifying the learning experience with 3D interactive interface. This App will be a self taught application for MBBS students. Their core course topics will be explained in detail with 3D demonstration in order to visualize what they are learning.

Title & Name: Ruba (M.A.) Salah (Consultant Architectural Engineer)

Courses Taught at DAU-CAAD- Architecture Department (2015 – 2017):

ARC 502 Graduation Project Research
ARC 418 Special Topics in Architecture

ARC 413 Theory of Architecture III (Humanities in Architecture)
ARC 301 Intermediate Design Studio I
ARC 311 Intermediate Design Studio II
ARC 303 Building Construction II
ARC 313 Theory of Architecture II
ARC 314 Sanitary and Technical Installation

Education Credentials:

2006–2009 MSC. Engineering of Architecture - University of Jordan, Amman, Jordan- Faculty of Engineering and Technology
1991– 1996 B.SC. Engineering of Architecture - University of Jordan, Amman, Jordan- Faculty of Engineering and Technology.

Teaching Experience:

2014-2017 Part time Lecturer (7 Semesters) at Princess Norah Bint Abdurrahman University, Collage of Art and Design, Interior Design Department teaching the courses of: Technologies and Ecologies, Furniture Design, Interior Specifications, Materials and Processes and the Internship supervision
2011-2013 Full-time Lecturer at Princess Norah Bint Abdurrahman University, Collage of Art and Design, Interior Design
Department- teaching the courses of: Residential Design Studio, Offices Design Studio, Commercial Design Studio, Hospitality Design Studio, Materials and Processes, Building Construction, Drafting Systems, Theories of Interior Design
2010-2011 Part time Lecturer (2 semesters) at Princess Norah Bint Abdurrahman University, Collage of Art and Design teaching the Two-Dimensional Design Studio.

Professional Experience:

2005-2010 Free Lancer Job- Supervising a group of Private villas (Amman and Riyadh), design works including Architectural, Renovations, Interior, Landscaping and furniture selection.
1999-2004 Diran & Masri Architects & Engineers, Amman- Jordan
1996-1999 Sigma Consulting Engineers and architects, Amman, Jordan
1996-1996 Rasem Badran Consultant Architects A trainee architect on King Abdulaziz Mosque at Al-Kharj- Riyadh, KSA and a mosque at Deir Ghbar - Amman, Jordan

Professional Membership:

- Jordan Engineers Association (JEA) – Architectural Engineer- June, 1996
  Consultant Architectural Engineer-August, 2011
- Jordan Green Building Council (JGBC) - Individual membership- June, 2013

Professional Training Programs:

- "IES Building Performance Modelling", 19 - 20 November 2016- Amman, Jordan.
- "Building Energy Modelling and Monitoring -Design Builder Software", 30 August-1 September 2014- Amman, Jordan
- "Energy Efficient Building Envelop- Basic Level", 26 October 2013, Amman, Jordan
- "LEED 251: Understanding Building Design + Construction LEED Rating System", 7 July 2013- Amman, Jordan
- "LEED 301: Implementing Building Design + Construction LEED Rating System", 8 July, 2013- Amman, Jordan
- "e-Learning Quality Assurance", 13-16 May, 2012, Riyadh, KSA
- "Drawing Applications Using AutoCAD and 3D Studio", 27 July – 28 August, 1996- Amman, Jordan

Selected Publications and Recent Research:

Master Research: "Transformations in Architecture Aesthetics: From Ornament to Materiality", University of Jordan, 2009

4.3. Certificate of DAU's National Accreditation (NCAAA)

4.4. NAAB Visit I Report

4.5. NAAB Visit II Report

Dar Al Uloom University
College of Architectural Engineering and Digital Design
Program of Architecture

Visiting Team Report

Visit Two for Substantial Equivalency

Bachelor of Architecture

The National Architectural Accrediting Board
April 10-13, 2016

Date of visit one: April 2014

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

Section **Page**

I. Summary of Team Findings

1. Team Comments and Visit Summary

The visiting team would like to begin its team comments and visit summary by thanking the students, faculty, and administration of the architecture program at Dar Al Uloom University (DAU) for the hospitality that was extended to the team during its time in Riyadh. Throughout the visit, everyone with whom the team had the pleasure to interact was gracious, friendly, and helpful.

The visiting team commends the effort that went into the preparation of the Architecture Program Report, a document that the team found to be a very helpful and useful introduction to architecture education at DAU.

In a similar vein, it is clear to the visiting team that an extraordinary amount of effort went into preparing the team room, which provided a clear and well-organized presentation of the required material that made the work of the team easier to accomplish.
It is clear to the visiting team that the architecture program at DAU benefits from engaged leadership. This leadership starts with Professor Abdullah Almudimigh, the rector and president of the university. He is committed to the well-being of every student at DAU and is an advocate of the program.

The College of Architectural Engineering and Digital Design (CADD) is stewarded by its dean, Ayman Al Musharaf, and vice dean, Nada Al Nafea. The visiting team was impressed by their dedication to CADD and its students and faculty. The team noted that the supportive and openly communicative environment that the team found to exist in CADD is a reflection of the skills and personality of its leadership.

The chairs of the architecture department, are equally exemplary. Both are skilled educators and able leaders of the faculty.

The visiting team found that DAU's program in architecture benefited from an engaged and talented faculty, who demonstrated to the team that they were deeply committed to architecture education. The faculty brings diverse backgrounds from a variety of countries to the program, which enriches the academic environment at DAU.

Finally, the visiting team felt that the students have a number of admirable characteristics. They are articulate, talented, and fiercely dedicated to their educations. Taken as a whole, the students are a very impressive group.

The program, the faculty, and, most of all, the students clearly benefit from the university's bold commitment to equal education for women.

Also impressive to this visiting team are the resources available to the program in architecture, which include:

- The new home for CADD and the architecture program, expected to open next semester, has every indication of being among the finest in the region.
- The program has top-notch computer facilities and large-format printers.
- New digital fabrication tools, when integrated into the studio work, will doubtless improve the use of models as design and articulation tools (an area that the visiting team identified as under-utilized).
- The architecture library is growing robustly.

The visiting team also found laudable the program's commitment to curricular development, self-assessment, and change, which makes the architecture program at DAU flexible and responsivee case.

2. Conditions Not Met

1.3.1. Statistical Reports

II.1.1 Student Performance Criteria (9 out of 32)
- A.4. Technical Documentation
- B.2. Accessibility
- B.3. Sustainability
- B.4. Site Design
- B.6. Comprehensive Design
- B.7. Financial Considerations
- B.11. Building Service Systems Integration
- C.1. Collaboration
- C.5. Practice Management

II.2.2 Professional Degrees and Curriculum

II.4 Public Information
- II.4.1 Statement on Substantially Equivalent Degrees
- II.4.2 Access to NAAB Conditions and Procedures
- II.4.3 Access to Career Development Information
- II.4.4 Public Access to APRs and VTRs

3. Causes of Concern

Only 5% of the curriculum, 8 credits, is allocated to electives, which makes it difficult for students to complete minors or develop areas of concentration. Further, the heavy course load of 6-7 courses per semester leads to many course preparations for students and faculty.

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 (2016): Pages 4 through 8 of the APR outline the history of the university and present its mission statements. This description is followed by a similar history of CADD and the architecture program on pages 8, 9, and 10 and pages 11 through 15 of the APR. Additional information on the history of the program is found on pages 16 and 17 of the APR under the section covering the perspective on Architecture Education and the Academic Community.

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 (2016):

Learning Culture:

Through interactions and conversations with faculty and students, as well as through observations, the visiting team confirms that the program provides a positive and respectful learning environment that encourages the fundamental values of optimism, respect, sharing, engagement, and innovation between and among the program administrators, students, faculty, and others. Students noted the accessibility and helpfulness of faculty members, and how they challenged students to think and act for themselves. Both students and faculty value the diverse schools of thought among the faculty, which is supported by the program. The faculty members value collaboration with one another and with the students, value their own cooperation between genders, and feel that they contribute to the program's success and are themselves valued.

The APR includes a description of the "studio culture," and the program has created and posted a studio culture policy throughout the building. The genesis of the policy is not clear, and the students with whom the team spoke were unfamiliar with the term or its meaning.

Social Equity:

The program has taken a very strong position on social equity. As the first architecture program in the country to admit females, starting in 2009, it sets a remarkable example, "with social equity between male and female roles of learning and community servicing in common. As long as a student of either gender or any national or social rank has been accepted and enrolled for the program, the candidate holds equity with all others in academic and social terms." Evidence of this position includes the program's provision of symmetrical, equal, but separate facilities and instruction for males and females.

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 (2016): In this instance, the visiting team found the information in the APR on this perspective to be unhelpful and of limited use. Nonetheless, during its time at DAU, the visiting team saw consistent examples indicating that the architecture students and faculty contribute in multiple ways to the overall academic community. Examples of faculty scholarship available in the team room indicated that there is an ongoing and sincere, if somewhat limited, commitment on the part of the architecture faculty to develop new curricular subject matter. Community outreach—such as the 2014 national workshop on heritage renovation at the ancient capital of Deraiah, which was sponsored by the architecture program—is a more compelling example of the symbiosis between the program and its academic setting. The architecture program faculty are actively engaged in the design and documentation of construction projects on campus, including the new facilities for CADD and the new School of Dentistry building.

[1] See Boyer, Ernest L. *Scholarship Reconsidered: Priorities of the Professoriate*. Carnegie Foundation for the Advancement of Teaching. 1990.

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 (2016): The team's meeting with the student body, its conversations with individual students, and its discussions with recent alumni all indicated to the visiting team that DAU architecture students are well prepared for a variety of productive careers after graduation. The students appear to be confident and well aware of their distinctive skills and worth.

Further, as the APR states, a core principle of the program is "the policy of architectural education and students on transparency and equity between males and females…." The APR identifies key areas of gender equity, including identical facilities and equal student-to-teacher ratios. Equally important is the fact that this policy of gender equity helps open meaningful opportunities for careers in architecture to female students, who have historically had limited options in the Kingdom of Saudi Arabia.

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 (2016): Page 18 of the APR provides a succinct summary of the regulatory environment in which DAU graduates who remain in the Kingdom of Saudi Arabia will practice. In addition, the courses that support the Student Performance Criteria of Realm C, principally ARC 512-*Professional Practice*, expose DAU architecture students to an overview of the opportunities and responsibilities that exist in their regulatory environment.

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 responsive to this perspective.

Visit Two Team Assessment (2016): As the APR notes, the architecture program at DAU takes regular advantage of its location in a large, modern capital city to bring to the program architects from around the world who are engaged in work in Riyadh. During the visit, the team witnessed this first-hand when it met with eight American architects from HDR who were on campus reviewing a health care project in an advanced design studio. The internationally known Jordanian architect Rasen Badran is a regular participant in the

courses and events of the DAU architecture program. The team also met with local Saudi practitioners, who reported similar involvement with the program. These types of engagement with the professional community are indicative of the environment in the DAU architecture program.

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 (2016): The APR provides a summary of the community engagement efforts made by the architecture community at DAU on pages 19 and 20. Included in this summary is a list of a dozen recent or ongoing programs of community engagement and outreach.

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 (2016): The program has a clear mission and vision, which supports the larger institution's mission and culture and has clearly stated objectives. The vision—"to be a leading school of architecture concentrating on creative, sustainable, technological and practical solutions while preserving the cultural and environmental conditions"—is well understood and supported by the faculty and students. The strategic objectives that form the basis of a long-range plan for this very young program evolved from faculty committees' recommendations in the biannual CADD report. Data are collected routinely from multiple sources—including students and faculty, both individually and collectively—to inform future planning and strategic decision making. The visiting team is impressed with the program's clarity of ambition.

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. *This should be stressed on the APR and in reality , in the program.*
- 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 (2016): The program has demonstrated that it regularly assesses itself, its progress toward its mission, and its progress against multiyear objectives. Progress made since the previous visit includes:

1. Developing the library by increasing the number of books.
2. Adding more labs in the newly added space in the college (to be ready for fall 2016 occupancy).
3. Hiring additional qualified faculty members.
4. Developing more participation in the Saudi community.
5. Revising the curriculum.

The program has used a variety of methods in its assessment, including collecting data about the program, benchmarking the program against peer programs, engaging faculty in regular curricular assessment and modifications, activating thematic course committees composed of faculty for this review, actively enlisting students in program assessment, engaging faculty and students in preparing for the NAAB review, conducting exit surveys and a market assessment, inviting alumni assessment, and conducting an internal assessment of the program's strengths, weaknesses, and challenges. The visiting team notes that the program has made important changes in response to this assessment process, and appreciates the depth and breadth of its self-assessment procedures.

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 (2016): CADD full-time academic staff totals 35 across all three degree programs (ARCH, Graphic Design, and Interior Design), including two administrators with full-time administrative appointments. Twenty of the 35 faculty members are lecturers; 11 are Graphic Design and Interior Design faculty. Seventeen teaching assistants and 5 adjuncts augment this faculty. The APR reports that the student-to-faculty ratio is 13.8 and that the average teaching load is 9.3 credits, with the highest loads carried by teaching assistants and the lowest by full professors. The credit load is a little deceiving, however, because a number of courses are 2-credit courses, which results in heavy course loads. Also, it is unclear how many support staff, research assistants, and lab technicians are in place, if any. Regardless, the quantity of human resources is minimally appropriate to support student learning and achievement. THE MODEL LAB IN THE FEMALE?

The quality of the human resources is very good as a result of the goal of hiring faculty members with “respective academic and practical experiences and from different cultural backgrounds and…schools of thought.” Most of the faculty hold PhDs from a variety of excellent institutions. Faculty members report that the program supports their attendance at conferences to present their scholarship.

Human resources policies and practices, self-assessment, and quality assurance are overseen by the university administration, specifically the Office of Vice Rector for Quality and Development. This office provides professional development opportunities for faculty and oversees faculty assessment, including the Injadz program of faculty evaluation. Personnel, hiring, review, and promotion procedures and social equity initiatives are not included in the current APR. Regarding social equity and diversity, the gender mix of the program is remarkable, as is the program’s place as the first in the Kingdom of Saudi Arabia to offer architecture education for female students.

- *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*

[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.

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 (2016): The student admissions policies and procedures are not clearly stated beyond the following statement in the APR: Students are eligible to apply for the entry to the architecture program after graduating from the science section of the high schooling system in Saudi. Accepted students are required to take the English placement test for proper distribution among the three-leveled English language skills that terminates with the preparation for taking the IELTS exam at a later stage of the study plan." More information about student admissions, financial aid, and scholarship procedures would have been helpful.

Student diversity in the program sets a benchmark for the country. There is one female student for every two male students. More than 20% of the almost 500 architecture students come from various ethnic and national groups living in the Kingdom.

An academic advising committee composed of faculty trains academic advisors on the various tasks of advising students. Students appear to feel connected to and respect the faculty members who are advising them. Learning opportunities outside of the classroom are provided via workshops, conferences, lectures, consultation services, and community-service projects. Students are active participants in course assessment and curricular improvement through regular meetings with the dean.

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 (2016): As noted in the APR, the architecture program is housed in the College of Architectural Engineering and Digital Design (CADD) of DAU. CADD is one of five colleges at DAU. The architecture program within CADD is led by two chairs, one male and one female, who report directly to the dean of CADD. The dean, in turn, reports directly to the rector, who is also the president of the university. There is no chief academic officer along the lines of the provost's position found in most American universities. This streamlined structure facilitates regular communication between the chairs and the university administration. From the interviews conducted by the visiting team as well as the interaction that was observed, it seemed clear that this system works well and that a spirit of cooperation and accessibility is the norm for the architecture program at DAU.

The program has the freedom to establish its curriculum and structure its program of education, which is a traditional measure of program autonomy. The visiting team also reviewed two other measures of autonomy: financial control, and hiring and promotions. While the program does not draft or administer its budget, as noted in 1.2.4 Financial Resources below, everyone involved in the program that met with the visiting team felt the program was adequately and fairly funded. Hiring decisions are made by the central administration in consultation with the chairs and the dean. Likewise, the chairs and the dean have a meaningful advising role in the decisions made by the central administration concerning faculty contract renewal and promotions.

- **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 (2016): As described on pages 10 and 11 of the APR, architecture faculty participate in the governance of the program through membership in four CADD standing committees: Accreditation and Academic Development, Student Affairs, Extracurricular Affairs, and Academic Advising. These four committees, supplemented by the observed environment of open communication that exists at DAU, provide architecture faculty with meaningful opportunities for participation in program governance and, to a lesser extent, university governance.

  At the time of this visit, several of the architecture students at DAU had recently formed an informal student governance committee. Currently consisting of six or seven individuals with specialized expertise and interests, this group holds promise with respect to providing meaningful governance input from the students.

  The visiting team is unclear as to the level of participation by architecture program staff in the governance of CAAD or the university.

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 (2016): At the time of this visit, the architecture program was housed on multiple levels of the 8-year-old central building of the DAU campus. As required by the university's mission, separate, identical facilities exist for each gender of student. The architecture program currently uses general classroom space for the bulk of its instruction, including technical classes and studios. Multiple studios currently share spaces.

This situation, including the "hot desks," will change dramatically next semester when the program moves into new facilities built specifically for architecture education. The visiting team had an opportunity to tour this new space and observed that it will provide a first-rate venue for architecture education, didactic learning, and scholarship. In addition, the crisp and contemporary design of the new facilities will serve as a beneficial reminder to students of the power of good design to positively affect work environments.

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 (2016): The faculty, students, and administration of the architecture program at DAU all report that they are fully satisfied with the financial report that they receive from the university. In addition, the central administration voiced a strong commitment to both the

financial support of the architecture program and to its stated goal of excellence in architecture education.

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 (2016): The library collection is housed in a central facility that is convenient to both male and female students. At the time of this visit, the number of volumes related to architectural subject matter was approximately 1,200, including 600 titles added in the last year. During its stay, the visiting team reviewed a list on a recent library acquisition order that included two copies each of an additional 1,280 architecturally related titles. DAU is committed to expanding its collection of architecturally related books. The goal of the program is to have 5,000 titles available to DAU architecture students by the end of 2017.

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 do not provide the appropriate information.

Visit Two Team Assessment (2016): The APR provides some, but not all, of the necessary statistical reports. Yet to be included are:

- Program student characteristics.
  - ☐ 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 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

[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.

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 (2016):
Faculty CVs adequately describe the faculty credentials, and the visiting team found the faculty to be appropriate for fulfilling the educational mission of the institution. A binder exhibiting some of the faculty scholarship was available for review, but an exhibit of faculty work was not provided.

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 Conditions for Substantial Equivalency.

[X] The policy documents in the team room did not meet the requirements of Appendix 4.

Visit Two Team Assessment (2016): The visiting team did not find the following documents in the team room or in the APR for review:

- ☐ Personnel policies, including:
  - Position descriptions for all faculty and staff
  - Rank, tenure, and promotion
  - Reappointment
  - Social equity or diversity, as appropriate
  - Faculty development, including, but not limited to, research, scholarship, creative activity, or sabbatical
- ☐ Square meters per student for space designated for studio-based learning
- ☐ Square meters per faculty member for space designated for support of all faculty activities and responsibilities
- ☐ Admissions requirements
- ☐ 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
- ☐ Policies on use and integration of digital media in the architecture curriculum
- ☐ Policies on academic integrity for students (e.g., cheating and plagiarism)
- ☐ Policies on library and information resource collection development

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.

[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).

- Comprehending people, place, and context.
- Recognizing the disparate needs of client, community, and society.

A.1. Communication Skills: *Ability to* read, write, speak and listen effectively.

[X] Met

Visit Two Team Assessment (2016): The program indicated that evidence of this ability could be found in the four required English courses. The visiting team found evidence of this ability in our interactions with students and in the team-room material. The 40% of the students who spoke and with whom we interacted in the well-attended student meeting were very articulate. In addition, the writing skills observed in the coursework seemed adequate.

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 (2016): The program asserted that evidence of this ability could be found in DES 101-*Design Foundations 1*, Physics 101, DES 111-*Design Foundations 2*, and ARC 215-*Theory of Structures*. The visiting team found evidence of this ability throughout the design studio courses.

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 (2016): The program indicated that evidence of this ability could be found in 16 courses. The visiting team found this ability to be broadly **Met**; however, there was less engagement with digital fabrication tools and physical modeling.

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 (2016): The NAAB Matrix that the visiting team reviewed did not reference specific courses as meeting this criterion. In response, the visiting team sought examples of technical documentation in ARC 402-*Construction Documents 1*, ARC 402-*Construction Documents 2*, and the work of the design studios. While the technical drawings of a mosque prepared for ARC 402-*Construction Documents 2* in 2014 indicated that care and attention had gone into the preparation of a set of working drawings and the studio work contained compelling graphic representations of design, the visiting team found no examples of the preparation of an outline specification by DAU students. Further evidence indicated that not all DAU students had prepared models, and those that were exhibited in the team room did not demonstrate sufficient investigation of the assembly of material concepts to satisfy this criterion. In addition, the visiting team noted that the first lecture of the fifth-year ARC 511-*Graduation Project* is a basic introduction to the use of models entitled “Making Models,” a topic more appropriately covered far earlier in the curriculum.

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 (2016): The program indicated that evidence supporting it could be found in six courses. The visiting team found abundant evidence indicating that this criterion had been **Met**, particularly in ARC 502-*Graduation Project Research*.

A.6. **Fundamental Design Skills: *Ability to* effectively use basic architectural and environmental principles in design.**

[X] Met

Visit Two Team Assessment (2016): The program indicated that evidence of this ability could be found in six courses. The visiting team found broad evidence of this ability throughout the design studio courses.

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 (2016): The program claimed that evidence of this ability could be found in 12 courses, including almost all of the design studios. The visiting team found this SPC to be well **Met**, with the use of case study research in almost all of the design courses.

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 (2016): The program asserted that evidence of this understanding could be found in seven courses. The visiting team found strong evidence of this ability throughout the student work submitted.

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 (2016): The sequence of history courses—ARC 201-*History of Architecture 1,* ARC 213-*History of Architecture 2,* and ARC 312-*Architecture of the Arabian Region*—provides architecture students at DAU with a thorough understanding of pre-19th-century regional and international architectural history. ARC 302-*Theory of Architecture 1* and ARC 313-*Theory of Architecture 2* provide a similarly robust treatment of 19th and 20th century architectural history.

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 (2016): During the visit, the program identified the student work prepared for ARC-403 *Housing & Urban Development,* ARC 413-*Humanities in Architecture,* and ARC 414-*Principles of Urban Planning* as demonstrating that this criterion is **Met**. The visiting team felt that the student work in ARC 403-*Housing & Urban Development* and ARC 413-*Humanities in Architecture* demonstrated an understanding of diverse social needs that was sufficient to satisfy this SPC.

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 (2016): The program indicated that evidence supporting this SPC could be found in six courses. The visiting team found evidence that this criterion had been **Met** in ARC 502-*Graduation Project Research*, in the case studies of a number of design studio courses, and in the urban design theory content of ARC 403-*Housing & Urban Design*.

Realm A. General Team Commentary: The visiting team found the program to have strong evidence of accomplishment in Realm A: Critical Thinking and Representation. The work of the students illustrates the ability to build abstract relationships and understand the impact of ideas based on the research and analysis of multiple theoretical, social, political, economic, cultural, and environmental contexts. The students are facile with a range of media and impressed the team as being inquisitive and broadly educated.

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 (2016): The program asserted that evidence of achievement of this ability could be found in ARC 417-*Architectural Programming* and ARC 502-*Graduation Project Research*. The visiting team admits some confusion, however, because ARC 417 is *Project Management* and does not include programming or pre-design. In ARC 502,

"Architectural Programming" is covered in a lecture and a home assignment, as is site selection and analysis, and good evidence of this is found in the completed student projects for this course. However, in these projects, the visiting team did not find evidence of any inclusion of a "review of the relevant laws and standards and assessment of the implications for the project." Since the language of this SPC includes "such as," the visiting team found this SPC to have been **Met**.

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] Not Met

Visit Two Team Assessment (2016): The program indicated that evidence of this ability could be found in ARC 304-*Landscape and Site Planning*, 403-*Housing and Urban Development*, 411-*Comprehensive Design Studio 2*, and 414-*Principles of Urban Planning*. Since student performance at an ability level is required, the visiting team primarily reviewed design course evidence. The evidence was not yet consistent enough in the Comprehensive Design Studios and Graduation Project to assess this criterion as met.

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] Not Met

Visit Two Team Assessment (2016): The program indicated that the criterion is met in ARCH 305-*Mat. & Const. Assemblies*, ARC 311-*Inter. Design Studio 2*, ARC 404-*Environmental Control,* and 511-*Graduation Project*. ARCH 404 adequately introduces the subject, but the robust evidence of the ability as evidenced in the design projects is inconsistent and often weak. The visiting team assesses this ability as **Not Met**.

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] Not Met

Visit Two Team Assessment (2016): The program indicated that the SPC is met in 11 courses. The visiting team found evidence of significant understanding of soil mechanics in ARC 415-*Soil Mechanics & Foundations*, of site design principles and analysis in ARC 304-Landscape and Site Planning, and of urban/site design principles in ARC 403-*Housing & Urban Design*. However, the team found that, within the design studio projects, evidence of an ability to apply an understanding of and maximize the opportunities of site characteristics was typically weak, as evidenced by upper-level projects without topography, vegetation, sidewalks, workable parking, or vehicular circulation. Thus, this SPC is **Not Met**.

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 (2016): The program asserted that evidence of student accomplishment was found in ARC 305-*Mat. & Const. Systems*, ARC 501-*Advanced Design Studio*, and ARC 511-*Graduation Project*. The visiting team did not find any evidence supporting this in ARC 305. In ARC 501 and ARC 511, although most projects illustrated basic principles of life-safety, the evidence was inconsistent.

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.7. Environmental Systems**
A.9. Historical Traditions and Global Culture	**B.9.Structural Systems**
B.5. Life Safety	

[X] Not Met

Visit Two Team Assessment (2016): The visiting team reviewed student work from the fourth-year design studios and the graduation project indicating that many architecture students at DAU are able to comprehend the technical aspects of design, systems, and material selection and to integrate them as required by this criterion. The team did not, however, find this successful integration to be present in all the student work, and some projects exhibited noticeable omissions of required material. Further, most of the projects reviewed failed to demonstrate that site planning principles were integrated in any meaningful fashion into designs as required by this criterion.

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] Not Met

Visit Two Team Assessment (2016): Construction cost estimating is addressed in a lecture in ARC 512-*Professional Practice*. In addition, students at DAU are required to summarize financial considerations as part of their research work in ARC 502-*Graduation Project Research.* However, examples of this work reviewed by the visiting team were too superficial to indicate that all of the architecture students had gained this requisite understanding. Further, there was no evidence of other aspects of the financial considerations of architecture beyond cost estimating (such as life-cycle costs).

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 (2016): The program indicated understanding to be met by ARC 311-*Inter. Design Studio 2*, 404-*Environmental Control*, and 406-*Lighting and Acoustics*. The visiting team found this criterion to be well met in the student work of 404 and 406.

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 (2016): The NAAB Matrix lists seven courses as contributing to the DAU architecture student's understanding of this SPC. The visiting team found sufficient evidence in five of these courses to judge that this criterion is **Met** at the understanding level: ARC 216-*Statics*, ARC 215-*Theory of Structures*, ARC 306-*Structural Analysis*, *ARC* 315-*Concrete & Steel Construction*, and ARC 415-*Soil Mechanics & Foundations*. The visiting team observed that ARC 415 includes a particularly detailed and robust discussion of soil mechanics that is not frequently found in comparable architecture programs.

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 (2016): The program referenced advanced studio courses—ARC 303-*Building Construction 2* and ARC 303-*Building Construction 2*, ARC 402-*Construction Documents 2, and* ARC 404-*Environmental Controls*—as courses in which this criterion is met. The visiting team found that an understanding of the basic principles of building envelope systems was most clearly demonstrated in the student coursework for ARC 404 and was adequate to judge this criterion as **Met**.

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] Not Met

Visit Two Team Assessment (2016): The NAAB Matrix in the DAU APR indicated that evidence for this criterion was met in the student work prepared for ARC 314-*Sanitary & Technical Installations*, ARC 406-*Lighting & Acoustics*, and the advanced design studios. In addition, the visiting team found related evidence in ARC 404-*Environmental Controls*. The team observed that several aspects of this criterion were extensively treated. These included plumbing considerations and acoustics and lighting, with acoustics and lighting being addressed in a lecture in ARC 404 and in ARC 406. Studio design work indicated an understanding of vertical transportation. While this evidence indicates a commitment to teaching building systems integration, the visiting team found no evidence of an understanding of electrical systems (beyond lighting) and fire protection systems, so this criterion was judged as **Not Met**.

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 (2016): Student work prepared for ARC 202-*Building Construction 1* and ARC 303-*Building Construction 2,* which was reviewed by the visiting team, indicated that the criterion is **Met** by the architecture students at DAU. The coursework in ARC 315-*Concrete & Steel Construction* also contributes to this understanding.

Realm B. General Team Commentary: As noted above in the assessment of criterion B.6 Comprehensive Design, the visiting team reviewed student work indicating that many students in the architecture program at DAU are able to comprehend the technical aspects of design, of building systems, and of material selection. This student comprehension, however, is not yet consistently demonstrated across the broad range of student work. In addition, the visiting team did not find evidence in the course work outlines provided to indicate that some topics related to this realm are covered.

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] Not Met

Visit Two Team Assessment (2016): The program indicated that evidence of this ability could be found in ARC 213-*History of Architecture*, 401-*Comp. Design Studio 1*, and 411-*Comprehensive Design Studio 2*. Evidence of collaboration with others is found in these design courses, consistently during research and analysis, and often during design. However, evidence of "multi-disciplinary teams to successfully complete design projects" is not yet evident.

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 (2016): The program indicated evidence of understanding could be found in ARC 302-*Theory of Architecture*, 403-*Housing & Urban Design*, 413-*Humanities in Architecture*, 414-*Principles of Urban Planning*, and 417-*Project Management*. More than adequate evidence of understanding is found in the projects and examinations of the first four listed courses.

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 (2016): The program indicated that evidence of understanding could be found in ARC 417-*Project Management* (incorrectly named on the matrix as "Programming"), 502-*Graduation Project Research*, 511-*Graduation Project*, and 512-*Professional Practice*. The visiting team found evidence of understanding in the products of the *Graduation Project* and its research, and in the exams and assignments of the *Professional Practice course*.

C.4. **Project Management: *Understanding* of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods**

[X] Met

Visit Two Team Assessment (2016): The program asserted that evidence of understanding could be found in ARC 512-*Professional Practice*. The course ARC 417-*Project Management*, (incorrectly named on the matrix as "Programming" provides adequate evidence of student understanding, through its exams and projects.

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 (2016): The program indicated evidence of understanding could be found in ARC 512-*Professional Practice*. While ARC 512-*Professional Practice* is a robust course, the visiting team found this particular understanding is not evident in the course outcomes

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 (2016): The program indicated evidence of understanding could be found in ARC 512-*Professional Practice*. The visiting team found good evidence of understanding in the exams and projects of the Professional Practice course.

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 (2016): The program indicated that evidence of understanding could be found in ARC 512-*Professional Practice*. The visiting team found good evidence of understanding in the exams and projects of the Professional Practice course.

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 (2016): The program indicated evidence of understanding could be found in ARC 512-*Professional Practice*. The visiting team found good evidence of understanding in the exams and projects of the Professional Practice course.

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 (2016): The program indicated evidence of understanding could be found in ARC 512-*Professional Practice* and 401-*Comprehensive Design Studio 1*. The visiting team found evidence of this understanding not only in the aforementioned courses, but also in a number of other design courses and the graduation project research course.

Realm C. General Team Commentary: The visiting team found the program to have strong evidence of accomplishment in most of "Realm C: Leadership and Practice." The Professional Practice course is robust, and a principal source of almost all of the required evidence. Student understanding of the trends and business of architecture as required by C.5, and evidence of the ability for multidisciplinary collaboration as required by C.1, are the only criteria not met in this realm. The visiting team is confident that graduates of this program have a solid understanding of architecture leadership and practice.

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 (2016): Dar Al Uloom University is accredited by the Ministry of Higher Education of the Kingdom of Saudi Arabia.

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] Not Met

Visit Two Team Assessment (2016):
The degree program is as follows:

34% general studies, (consisting of 21% general education [preparatory] courses and13% college requirement courses)
61% professional studies
5% electives

With only 5% of the courses in electives, students may not be able to complete minors or develop areas of concentration, inside or outside the program.

II.2.3 Curriculum Review and Development
The program must describe the process by which the curriculum for the substantially equivalent degree program is evaluated and how modifications (e.g., changes or additions) are identified, developed, approved, and implemented. Further, the NAAB expects that programs are evaluating

curricula with a view toward the advancement of the discipline and toward ensuring that students are exposed to current issues in practice. Therefore, the program must demonstrate that architects authorized to practice in the country where the program is located are included in the curriculum review and development process.

[X] Met

Visit Two Team Assessment (2016): As discussed under I.1.5. Self-Assessment Procedures, the program has used a variety of methods in its curriculum review and development, including the following: collecting data about the program; benchmarking the program against aspirational peer programs; charging faculty with regular curricular assessment and modifications; activating thematic course committees of faculty for this review; actively engaging students in program assessment; engaging faculty and students in preparing for the NAAB review; conducting exit surveys and a market assessment; inviting alumni assessment; and conducting an internal assessment of the program's strengths, weaknesses, and challenges. The visiting team notes that the program has made important curriculum changes in response to this assessment.

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.

[ ] Met
[ ] Not Met

Visit Two Team Assessment: The evaluation of Preparatory/Preprofessional Education does not apply to this program.

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] Not Met

Visit Two Team Assessment (2016): The DAU website includes language announcing the NAAB visit, and includes the following language: "NAAB is the sole agency that accredits the architecture programs inside the United States." The program has not yet received substantial equivalency, so cannot include all of the language found in NAAB Conditions for Substantial Equivalency, Appendix 6.

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] Not Met

Visit Two Team Assessment:
The visiting team could not find these documents linked to the DAU website.

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] Not Met

Visit Two Team Assessment (2016): Beyond information provided in the Professional Practice course, and the mention by students and in the APR of a Career Day, the visiting team did not find evidence of resources related to a career in architecture.

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] Not Met

Visit Two Team Assessment (2016): The visiting team did not find evidence of the most recent APR or the report from the first visit on the website.

III. Appendices

Appendix 1. Program Information

A. History and Mission of the Institution and the Program
APR, page 4

B. Long-Range Planning
APR, pages 11-12

C. Self-Assessment
APR, page 20

Appendix 2. Conditions Met with Distinction

The visiting team thinks it is premature for any “conditions met with distinction”.

Appendix 3. Visiting Team

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IV. Report Signatures

Respectfully Submitted,

Michael Stanton, FAIA

Team chair

Katherine Lee Schwennsen, FAIA
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4.6. Students' Exit Survey Questionnaire

4.7. Financial Report 2016-2017

4.8. DAU Job Description