Qatar University
Department of Architecture and Urban Planning (DAUP)
College of Engineering

Architecture Program Report: Visit Three Reevaluation

Bachelor of Architecture [B. Arch.] Program (160 credit hours)

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Contents

1. Plans for or Progress in Addressing the Items Within the Scope of the Visit Three Reevaluation

This focused architecture program report presents the progress made toward meeting NAAB Conditions that were not yet met at the time of the 2015 NAAB substantial equivalency 3rd visit to the DAUP at Qatar University (QU). In December 2015, the QU Bachelor of Architecture (B.Arch.) program also benefitted from an evaluation conducted by QU as part of the university's regular academic program assessment process. Independent program reviewers conducted the program review and evaluation.

In response to both the NAAB and QU reviews, the DAUP conducted a learning outcomes assessment and developed an action plan for meeting the NAAB Conditions and other objectives identified by the faculty to enhance the quality of architectural education and design teaching. This paved the way for curricular improvements that ensured all Student Performance Criteria (SPC) are fully addressed in required courses and student work provides convincing evidence that the SPCs are attained.

The DAUP initiated the Process of NAAB Substantial Equivalency in 2012.The first NAAB visit took place on 17-18 June 2012 and was successfully concluded with the Visiting Team Report (VTR 1) positively identifying the potential of the department and its ability to acquire the NAAB-SE status. The second visit was successfully undertaken during Fall 2013 semester (9-12 December 2013), with meaningful feedback serving to enhance the program's activities and led to further improvements in Student Learning Outcomes (SLOs) and SPC attainment levels. The VTR 2 identified the focus on sustainability in studio projects, summer training internships, and core program activities as areas of excellency. It is worth mentioning that until the second visit, the program was yet to complete a cycle of instruction or graduate its first class. It is also important to note that some major courses such as the Comprehensive Design Studio (ARCT 510) and the Ethics and Professional Practice (ARCT 531) courses were yet to be offered. During the third visit, which took place in Spring 2015 (22-25 March 2015), the program was deemed deficient in seven SPCs: B.2 Accessibility; B.4 Site Design; B.5 Life Safety; B.6 Comprehensive Design; B.10 Building Envelope Systems; C.1 Collaboration; and C.6 Leadership. The program was also found to have not met Condition II.2.2 dealing with professional Degrees and Curriculum as reported in VTR 3. All previous visits reports and decision letters are made available in the Architecture Learning Resource Center (ALRC). They are also accessible on the department website.

The outcomes of the third visit generated the need for a self-assessment. This aimed to enhance design studio practices along with the teaching approaches used in supporting courses. This was considered as an effective way to systematically improve instruction, teaching-learning experiences, and the achievement of the SLOs and related SPCs in the whole curriculum. This in-depth study and related reviews resulted in a series of actions translated into concrete and effective activities. This Section 1 of the report is subdivided into two parts. Part 1 immediately below, provides a general overview of the related actions, which are completed, in process, or planned in the near future. Part 2, starting on page 6, presents specific actions taken to address the SPCs.

Part 1: A Generic Overview

1. **The Design Studio Enhancement Task Force [Review and Report]:** The Design Studio Enhancement Task Force (DSETF) was established by the end of June 2016. Its main focus was on reviewing the design studio practices of the DAUP, and seeking ways to enhance studio instruction, attainment of adequate levels of achieving SLOs and related SPCs in all courses. The review concluded with a concise report that was presented to the body of the department including faculty members, staff, administrators and, most importantly, our students in a series of related presentations and talks at the start of Fall 2016. The report led to a change in focus and approach in design studio teaching. There was a smart and smooth shift from an output-based approach to a holistic process-based design approach with a focus on integration and comprehensiveness. This latter one, was adopted on a gradual and systematic manner. The related document "Design Studio Enhancement Strategy Report" is available in the Section 4, Supplemental Materials.

2. **The Design Studio Project Grading Rubrics**; The new design studio approach adopted new assessment (or grading) rubrics, which were developed in order to support the enhancement of the sought SLOs and attainment of all SPCs requirements. The grading rubrics and project timelines support an integrative-comprehensive approach in design studio teaching because they embed all criteria related to an optimum attainment of the SPCs as per NAAB guidelines and recommendations. The related grading rubrics were also mapped to the template of design studio project outline according to themes, objectives, sites, and duration. Please refer to "Design Studio Project Grading Rubrics" available in the Section 4, Supplemental Materials.

3. **The Studio Framework, Project Sequences,** and **Enhancement Week**: Based on the review conducted by the department and the independent program reviewers, design projects adopted a flexible sequencing in line with the 'Design as a process' approach in studio teaching around the world. In this perspective, the **"Enhancement Week**" concept was developed and adopted in order to allow students fix and enhance the quality of their design projects based on the review comments and critics they receive during preliminary and pre-final juries (Figure.1). In fact, the enhancement week work and effort were included as part of the newly established grading rubrics-system for design projects correlating to the SPC attainment levels.

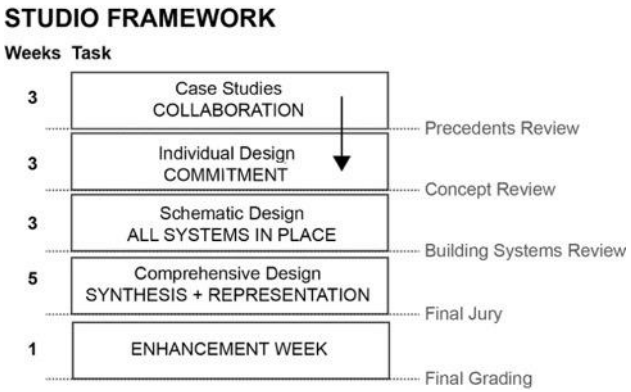


Figure 1. The Studio Framework-Project Sequences and Enhancement Week (DAUP and Program Reviewers, 2017).

4. **Design Studio Framework**: To complement the above items, the program also developed a design studio framework (Figure 2). This newly developed structure incorporated information about all studios including themes, number of projects, assigned SPC, types of site, and assessment criteria among many other factors. The studio framework is flexible and adaptive in its content. Its large A0-poster was prominently displayed in the Department to constantly remind students and staff of the outcomes expected for delivery in design projects. The large high resolution "Design Studio Framework" is also available in the Section 4, Supplemental Materials. The "Design Studio Sequences" shown in Figure 2 (next page) depicts the studios structure and related projects all over the duration of the curriculum, which is also available in Section 4, Supplemental Materials.

5. **NAAB Matrix (Evolution and Latest Version)**: Based on the reviews conducted by the department curriculum committee, initial Peer Review process outcomes and review reports from B.Arch. program reviewers, the NAAB matrix saw minor revisions throughout the enhancement cycle during the last 2 years. This has been reflected in the development and enhancement strategy conducted by the department to improve studio practices as well as teaching in related supporting courses. The NAAB Matrix Version 17.09.2017 (Figure 3) is available in Section 4, Supplemental Materials. The chronological evolution of the NAAB Matrix between Fall 2015 and Fall 2017 is available in the NAAB Focused Visit folder.

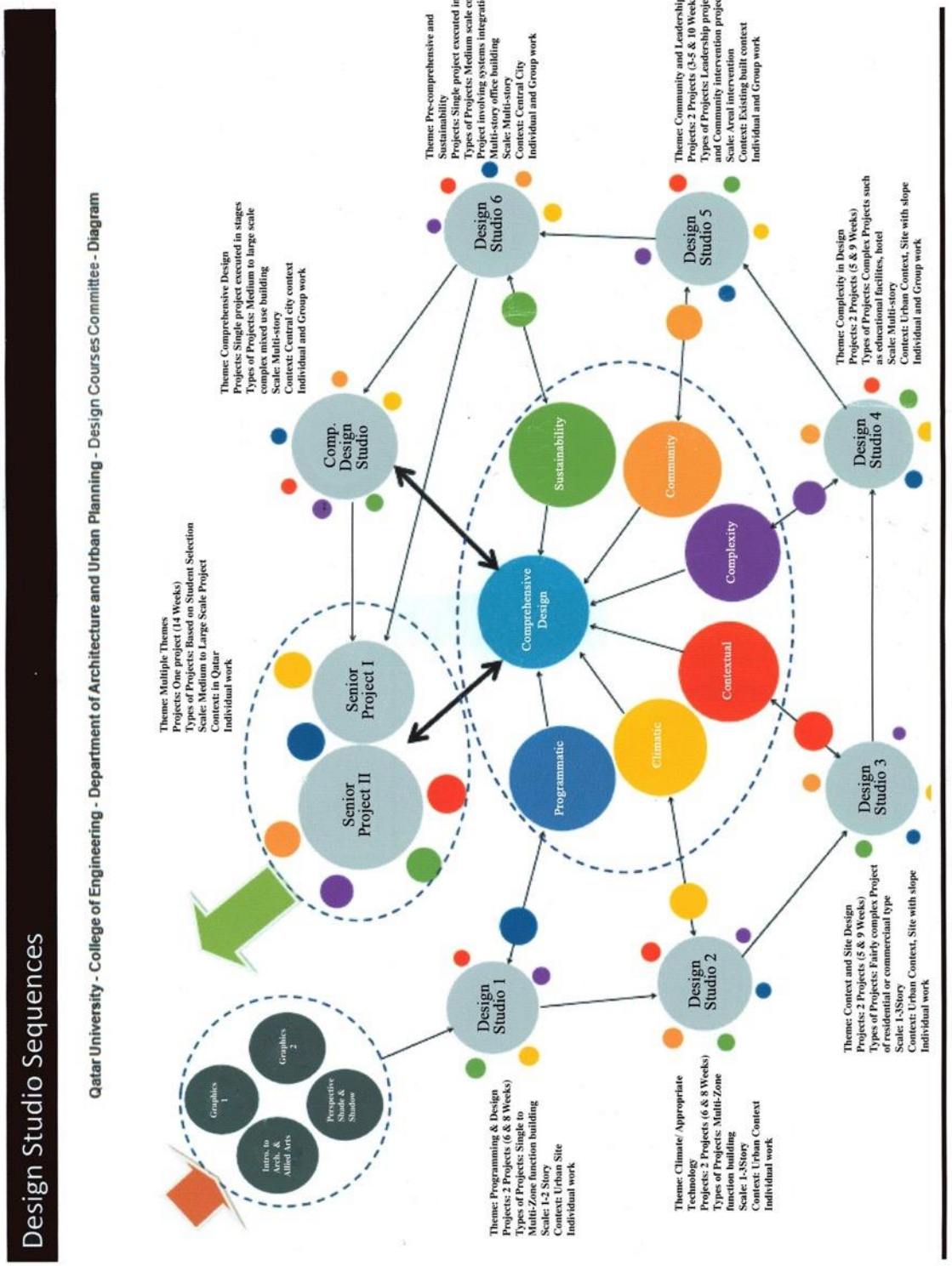
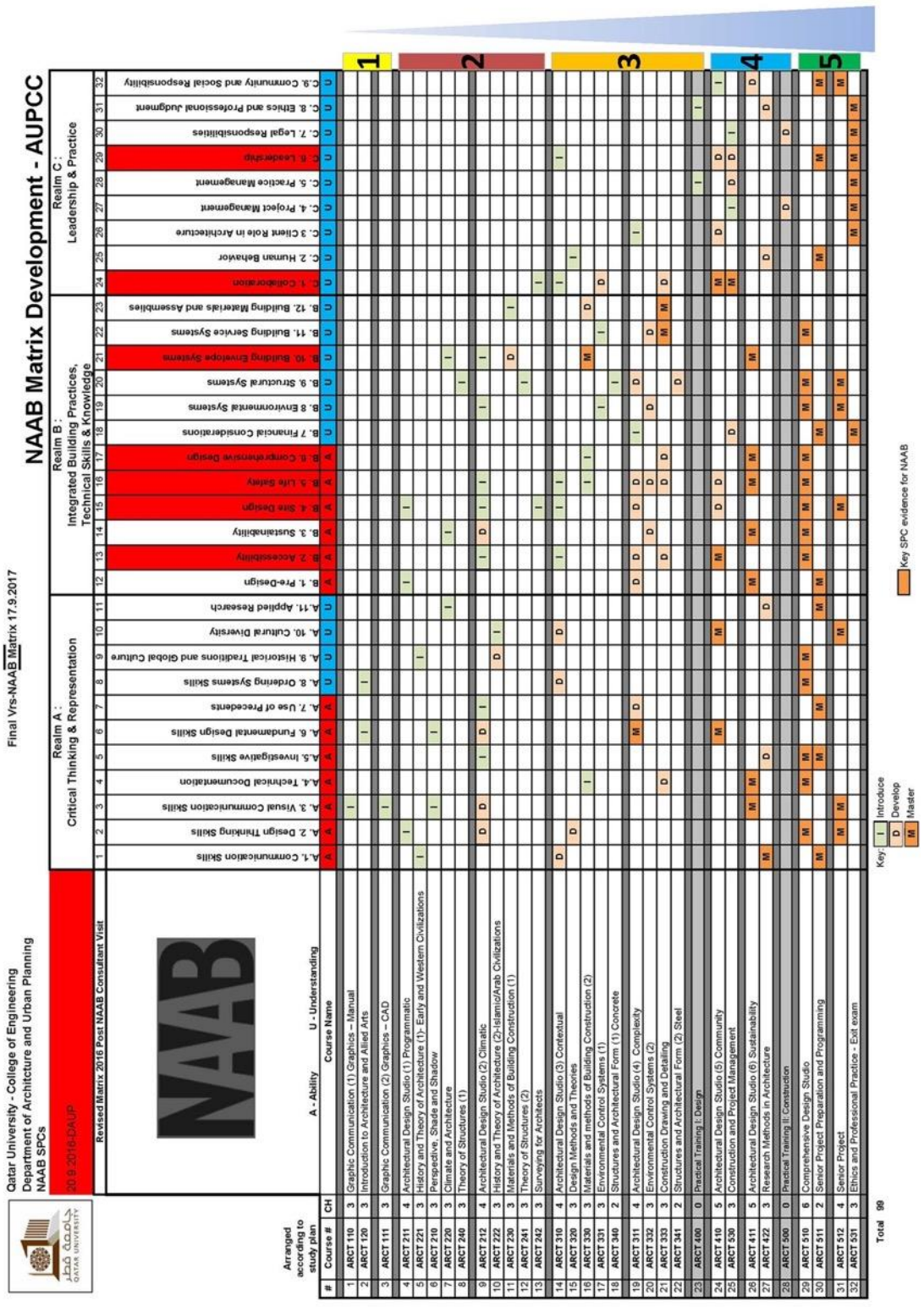


Figure 2. DAUP Design Studio Sequences (2016).



#	Course #	CH	Course Name
1	ARCT 110	3	Graphic Communication (1) Graphics – Manual
2	ARCT 120	3	Introduction to Architecture and Allied Arts
3	ARCT 111	3	Graphic Communication (2) Graphics – CAD
4	ARCT 211	4	Architectural Design Studio (1) Programmatic
5	ARCT 221	3	History and Theory of Architecture (1)- Early and Western Civilizations
6	ARCT 210	3	Perspective, Shade and Shadow
7	ARCT 220	3	Climate and Architecture
8	ARCT 240	3	Theory of Structures (1)
9	ARCT 212	4	Architectural Design Studio (2) Climatic
10	ARCT 222	3	History and Theory of Architecture (2)-Islamic/Arab Civilizations
11	ARCT 230	3	Materials and Methods of Building Construction (1)
12	ARCT 241	3	Theory of Structures (2)
13	ARCT 242	3	Surveying for Architects
14	ARCT 310	4	Architectural Design Studio (3) Contextual
15	ARCT 320	3	Design Methods and Theories
16	ARCT 330	3	Materials and methods of Building Construction (2)
17	ARCT 331	3	Environmental Control Systems (1)
18	ARCT 340	2	Structures and Architectural Form (1) Concrete
19	ARCT 311	4	Architectural Design Studio (4) Complexity
20	ARCT 332	3	Environmental Control Systems (2)
21	ARCT 333	3	Construction Drawing and Detailing
22	ARCT 341	2	Structures and Architectural Form (2) Steel
23	ARCT 400	0	Practical Training I: Design
24	ARCT 410	5	Architectural Design Studio (5) Community
25	ARCT 530	3	Construction and Project Management
26	ARCT 411	5	Architectural Design Studio (6) Sustainability
27	ARCT 422	3	Research Methods in Architecture
28	ARCT 500	0	Practical Training II: Construction
29	ARCT 510	6	Comprehensive Design Studio
30	ARCT 511	2	Senior Project Preparation and Programming
31	ARCT 512	4	Senior Project
32	ARCT 531	3	Ethics and Professional Practice - Exit exam

Figure 3. DAUP-NAAB Matrix (2017).

6. **NAAB-related SPCs Evidence Presentations:** DAUP faculty members designed and developed a series of presentations about how to address and best present related SPC in design projects. This was mainly aimed at the students but also had positive impact on teaching practices in the DAUP. Please refer to the DAUP website here and hardcopy file is available in the Architectural Learning Resource Center (ALRC).

7. **Best Practice SPCs Achievement:** A compilation of best practices in SPC achievement have been developed by the department based on the expertise of each faculty member and coordinated by the curriculum committee. The hardcopy file is available in the Architectural Learning Resource Center (ALRC).

8. **The Peer Review Process:** The department introduced a peer review process whereby individual faculty members were designated as champions to review and monitor the level of attainment of a particular SPC throughout the program sequences over different design studios and supporting technical/hybrid courses. The faculty member/SPC champion conducts a series of visits to design studios at well-designated sequential moments over the duration of the project in order to review the work of students and provide a feedback on the level of achievement of the applicable SPC in the studio work and related supporting technical/hybrid courses. Within the scope of the peer review process, the SPCs of '[B.2.] Accessibility', '[B.4.] Site Design', and '[B.5.] Life Safety' were classed as mandatory in all design studio courses, meaning that evidence has to be clear in all studio outputs. Specific review checklists were developed by the whole department team. The checklists consisted of concise, focused, and integrative rubrics that enabled rigorous, continuous monitoring and assessment of SPC level of attainment through students work (see "Peer Review Process"). The below Figure 4 represents the sequential flow-chart of the Peer Review process as designed and run in the department over the last 3 semesters. The process was validated by program reviewers as well as the University and College Quality Assurance (QA) team. Faculty members are drafting a paper to share this valuable experience at regional and international conferences.

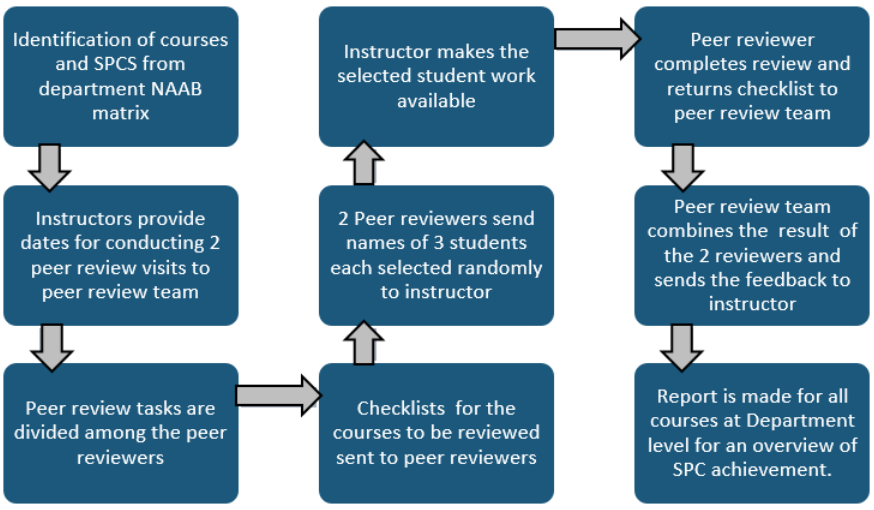


Figure 4. The Peer Review Process: Stages and Workflow.

9. **Curriculum Change:** The Department initiated and completed a minor curriculum change. This was done in order to address the issue raised during the last visit (VTR 3). The curriculum now conforms with the related NAAB requirements. The full curriculum change has been documented. Further details are available in Part 2. Please refer to "Curriculum Change" in Section 4: Supplemental Materials.

10. **Improving Multidisciplinary Collaboration Activities:** Other actions included examining ways to improve multidisciplinary collaboration and engagement with the community and other related stakeholders. Further efforts have been deployed to support the involvement and engagement of practitioners in the design studio culture of the department. Visiting practitioners, clients and critics are supporting the delivery of related aspects of design in foundation studios as well as the upper-level design courses and studios. Moreover, continuous collaboration with the Mechanical and Industrial Systems Engineering Department is conducted through a "Protocol for Multidisciplinary Collaboration with Mechanical and Industrial Systems Engineering (IES)", which is an example of similar protocols for multidisciplinary collaboration developed in 2015 and 2016. Prominent architecture practices such as Jean Nouvel Office in Doha, KEO, AEB (whose CEO Ibrahim Jaidah sits on the DAUP Advisory Board) often offer hands-on tutorials and studio sessions on DAUP premises (see #12 below).

11. **The AIAS–QU, American Institute of Architecture Students–Qatar University:** The AIAS-QU Chapter was established and officially launched in 2016. It is also registered as a Student Association in Qatar University. It facilitates students' involvement in international, regional, and local community activities and events as leaders and collaborators. The association aspires to foster the students' collaboration and leadership skills in extra-curricular activities at different levels, both *intra* and *extra muros* (i.e., inside and outside of the community) as well as multi-disciplinary collaboration and community leadership. AIAS-QU chapter has organized a number of events to achieve its aims including AIA public events, design competitions, and hosting students from regional architecture schools.

12. **Involvement of Visiting/Part-time Practitioners in Design Studios and Related Courses**: To facilitate the achievement of multi-disciplinary collaboration, the program has also supported and encouraged the engagement of practicing architects and engineers in design studios. The practicing professionals have been used in upper-level [300 to 500] design studios as well as in foundation design courses [level 100 and 200]. The involvement of professionals provides an avenue to improve the quality of design outputs from studios as well as reinforce the multidisciplinary collaboration skills among our students. Practicing engineers from Architecture, Engineering, and Construction (AEC) industry usually review the work of the students, provide feedback on the workability of schemes, and suggest ways to improve the integration of technical systems throughout the different stages of the design process (refer to #10 above).

13. **Periodic Reviews by Independent Program Reviewers**: The process of the NAAB Substantial Equivalency [NAAB SE] of the B.Arch. program at DAUP began two years after the initiation of the program (i.e., 2011). The department seeks reputable, experienced academics, and professionals in the field to act as independent external reviewers for the program. Periodic reviews are conducted in order to ensure good progress in the enhancement tasks and improvement actions. Guidance and advice are given to the department about future development due to its expected expansion, growth, and enhancement. Our aim is to keep the department growing and its programs improving in a continuous manner. This would also ease the process of accreditation renewal by satisfying the most recent NAAB accreditation and substantial equivalency conditions in use at the time of renewal.

Part 2: SPC Specific Actions

In the below sections, further details [on the actions made, on-going or planned] are provided in order to offer a clearer explanation about how the department tackled and addressed the issues raised through NAAB visit 3. The main focus is on the seven unmet SPCs and on the issue related to the minor curriculum change that was highlighted during the last visit. Table 1 below shows the mapping of the unmet SPC to the courses where the SPCs are addressed and evidenced [at "M" = Mastery level, and "D" = Developmental level, where needed] for the focused revisit planned NAAB Team Room (NAAB TR). This is based on the NAAB matrix, which was last reviewed on 17 September 2017 as shown in Figure 3. It is

worth mentioning that courses presented in the focused NAAB TR cover the period spanning from Fall 2015 to Fall 2017. The related courses are representative of student work materials and supported by hardcopy course files. All course files are digitally stored and can be accessed online through the DAUP-NAAB shared folders (refer to Section 4, Supplemental Materials).

Table 1. Courses with SPC Evidence in the NAAB TR for the Focused Visit.

S/No	Evidenced SPC	Mapped Courses for SPC Evidence	Level
1	B.2. Accessibility	ARCT510 Comprehensive Design Studio	M
		ARCT410 Design Studio 5 - Community and Leadership	M
		ARCT311 Design Studio 4 - Complexity	D
		ARCT333 Construction Drawing and Detailing	D
2	B.4. Site Design	ARCT512 Senior Project	M
		ARCT510 Comprehensive Design Studio	M
		ARCT410 Design Studio 5 - Community and Leadership	D
		ARCT311 Design Studio 4 - Complexity	D
3	B.5. Life Safety	ARCT510 Comprehensive Design Studio	M
		ARCT411 Design Studio 6 - Sustainability	M
		ARCT410 Design Studio 5 - Community and Leadership	D
		ARCT311 Design Studio 4 - Complexity	D
4	B.6. Comprehensive Design	ARCT510 Comprehensive Design Studio	M
		ARCT411 Design Studio 6 - Sustainability	M
		ARCT333 Construction Drawing and Detailing	D
5	B.10. Building Envelope Systems	ARCT411 Design Studio 6 - Sustainability	M
		ARCT330 Materials and Method of Building Construction II	M
		ARCT230 Materials and Method of Building Construction I	D
6	C.1. Collaboration	ARCT530 Construction and Project Management	M
		ARCT410 Design Studio 5 - Community	M
		ARCT333 Construction Drawing and Detailing	D
		ARCT331 Environmental Control Systems I	D
7	C.6. Leadership	ARCT531 Ethics and Professional Practice	M
		ARCT511 Senior Project Preparation and Programming	M
		ARCT530 Construction and Project Management	D
		ARCT410 Design Studio 5 - Community and Leadership	D

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.*

2015 Visiting Team Assessment: Not Met. Evidence of understanding was found in ARCT 320 Design Methods and Theories but there was a lack of consistent evidence of ability in studio work.

Program activities to address B.2 Accessibility:
The program recognized 'B.2. Accessibility' as an important and critical aspect of architectural design. To reflect this importance, the first step taken was to emphasize that it has to be addressed and evidenced in all design studios work. The Peer Review process was used to monitor progress in addressing accessibility for feedback and corrective action, where deemed necessary. Studio instructors were required to introduce students to applicable codes and practices through presentations and discussions.

In the planned focused NAAB TR, SPC [B.2.] 'Accessibility' is to be evidenced in four courses:

ARCT510, Comprehensive Design Studio:
The comprehensive design studio is an integrative studio that is also focused on comprehensiveness of the architectural project and the integrative process of design development. Projects available in the NAAB TR exhibit a typology of projects that include social, recreational, educational, and multi-modal projects types. They utilize different sites.

ARCT410, Architectural Design Studio 5 (Theme: Community):
This design studio covers the community theme displaying evidence for accessibility and site design in the NAAB TR. The projects are urban in character, addressing issues of mixed use, central city residential development, urban revitalization, and infill development in historic contexts.

ARCT311, Architectural Design Studio 4 (Theme: Complexity):
This design studio themed under complexity, has projects displayed in the NAAB TR based on recreational and mixed-use development typologies.

ARCT333, Construction Drawing and Detailing:
Students work from the course shown in the NAAB TR focus on construction drawing and detailing accessibility components for production.

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

2015 Visiting Team Assessment: Not Met. While Site Design is not yet demonstrated at the ability level, progress has been made since the previous visit to create opportunities. Acknowledging that Qatar is a relatively flat terrain with almost homogenous soil structure, topography, vegetation and watershed, the faculty has additionally introduced projects in different countries and regions that expose students to different climates, site conditions, and topographies. Such projects have been introduced in ARCT 212, ARCT 310, and ARCT 311 Design Studios, which show evidence of more complex site analysis. However, site design at the ability level has not yet percolated up to the ARCT 510 Comprehensive Design Studio and ARCT 512 Senior Project. Continued focus by faculty on providing a variety of site types early in the program will allow future demonstration of comprehensive analysis and synthesis of site design elements into projects at all levels.

Program activities to address B.4. Site Design: The peer review process and its related SPCs monitoring checklists – together with design project assessment rubrics for use in grading design studio projects – have captured the broad outline of requirements for successful site design outputs [refer to related documents in the supplemental materials section]. The outline includes issues such as boundary,

topography, and watershed. The SPC '[B.4.] Site Design' has presented many challenges and a series of remedial actions have been developed. This was necessary mainly due to the dry, flat nature of the terrain and limited scope of the settled territorial space of Qatar. In order to facilitate alternative choices for student project locations with focus on slope, terrain, water shed, and so forth, the Department and its design studios instructors have continued to search for challenging sites to facilitate creative design experiences to enhance the site design ability of the students. This is demonstrated through significant improvements in the way that the challenges of Site Design are addressed and they are delivered through projects outputs. These achieved enhancements are evident in the progressive improvement monitored through the peer review process and evidence present in the NAAB TR.

In the planned focused NAAB TR, SPC [B.4.] Site Design is to be evidenced in four courses:

ARCT512, Senior Project:
Projects shown from this final year studio focus on a variety of building types and locations as these are individual projects where the student identifies the needs of the community and/or client and develops her own brief and design alternatives in the Senior Project preparation course. The building types include recreational, cultural and social, medical, residential community, and educational. The projects are located in a diversity of sites distributed within urban, semi-urban, and rural areas offering a multitude of site typologies.

ARCT510, Comprehensive Design Studio:
Project from this studio focus on building types that include social, recreational, educational, and multi-modal projects. The projects are carried out on a diversity of sites to enable students to tackle topographic challenges.

ARCT410, Design Studio 5 (Theme: Community):
Projects from this studio refer to a diverse typology of projects spanning urban mixed-use, residential, urban revitalization, and infill projects including design in historic districts.

ARCT311, Design Studio 4 (Theme: Complexity):
Project from this design studio focus on recreational and mixed-use (residential, leisure, and commercial) facilities. They have been designed for different sites such as the West Bay area and Al-Rayan district in Doha.

B.5. Life Safety: Ability *to apply the basic principles of life-safety systems with an emphasis on egress.*

2015 Visiting Team Assessment: Not Met. Progress has been made and evidence of an understanding was found in ARCT 332 but there was still a lack of consistent evidence of ability in studio work.

Program activities to address B.5, Life Safety SPC: B.5. Life safety is one of the unmet SPCs that was also identified as critical and must be addressed in all design studios from introductory studios to the final senior project. This emphasis was also reflected in the revised NAAB matrix, whereby life safety was assigned to all design studios and courses dealing with materials and assembly to ensure both understanding and ability are met in addressing the SPC. An emphasis was focused on ensuring that design solutions and assemblies are consistent with related international and local code requirements and standards. The Peer Review process has been used as a tool to provide feedback on life safety issues in design projects on a permanent basis and as a means to assess the level of achievement of the SPC. The DAUP program intends to continue with its strong focus on addressing life safety issues in all studios and related courses to ensure that students acquire an adequate understanding of requirements and their application in studio projects for developing their abilities to address the SPC.

In the planned focused NAAB TR, SPC [B.5.] is to be evidenced in four courses:

ARCT510, Comprehensive Design Studio:

Project from this studio focus on building types that include social, recreational, educational, and multi-modal project types. The projects are carried out for diverse sites in areas of Qatar such as Lusail City and Al-Sadd district in the vicinity of Hammad Hospital in Doha.

ARCT411, Architectural Design 6 (Theme: Sustainability):

Students' works from the course in the NAAB TR exhibit different project typologies including entrepreneurial and mixed-use facilities. Projects are located on various sites.

ARCT410, Architectural Design Studio 5 (Theme: Community):

Projects from this studio in the NAAB TR exhibit a typology of projects including urban mixed-use, residential, and design in historic districts.

ARCT311, Architectural Design Studio 4 (Theme: Complexity):

Students' works from the course in the NAAB TR focus on recreational and mixed-use (residential, leisure, and commercial) facilities. The projects have been designed for various sites.

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.9 Historical Traditions and Global Culture*	*B.5 Life Safety*
A.4 Technical Documentation	*B.2 Accessibility*	*B.7 Environmental Systems*
A.5 Investigative Skills	*B.3 Sustainability*	*B.9 Structural Systems*
A.8 Ordering Systems	*B.4 Site Design*	

2015 Visiting Team Assessment: Not Met. Progress has been made since Visit Two; however, there was still not consistent evidence of ability in ARCT 510 Comprehensive Design Studio, specifically in Life Safety, Accessibility, Site Design, or Structural Systems.

Program activities to address B.6. Comprehensive Design: This is the main course dedicated to meeting this SPC. However, students practice aspects of comprehensiveness in design at different levels in related studios such as in ARCT411 (Design Studio 6- Sustainability), which is taught as a pre-comprehensive design studio. Technical courses such as ARCT 333 develop students' ability to integrate components and assemblies in design detailing and technical documentation. The improvement actions of comprehensive design have involved several phases and levels. Faculty explored existing best practices in the field including the reviews from the independent program reviewers.

The DAUP also engaged practitioners from different fields both from the Architecture, Engineering, and Construction (AEC) industry from within QU and other higher education institutions in Qatar. This was operated in such way to ensure that generic as well as specific items are embodied in the concept of integration and comprehensiveness in design.

These actions have led to significant improvements in the design process and learning outcomes including integrating systems and structure, addressing life safety and accessibility, and design detailing and documentation. The peer review mechanism was a useful tool gauging the students work level of achievement for this SPC and other related ones. The studio grading rubrics and related checklist were another means to ensure the adequate completion of SPC-related attributes.

In the planned focused NAAB TR, SPC [B.6.] is to be evidenced in three courses:

ARCT510, Comprehensive Design Studio:

Project from this studio focus on building types that include social, recreational, educational, and multimodal project types. The projects are carried out on diverse sites in Qatar.

ARCT411, Architectural Design 6 (Theme: Sustainability):

Student work from this course focus on project typologies including commercial and mixed-use facilities. They are located in various sites in Qatar.

ARCT333, Construction Drawing and Detailing:

Projects in this course focus on construction drawing and detailing accessibility components for production. All related technical aspects are brought together through the term project as well as other assignments developed over the delivery of this course. Students learn and apply assembly and systems integration in design related exercises.

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.*

2015 Visiting Team Assessment: Not Met. Consistent evidence of an understanding could not be found in either class work or studio work on the basic principles of multiple envelope systems and assemblies.

Program activities to address B.10. Building Envelope Systems: The main issue raised for this SPC was the predominant use of traditional envelope systems to the detriment of other materials available in addressing aesthetic and performance issues in design. Since the last visit, there has been a shift in design studios and related courses towards the use of multiple envelope systems to respond to contextual, technical, and aesthetic issues.

The NAAB matrix was slightly amended to ensure this SPC is adequately addressed as a point of focus in design. In order to complement related instructional attributes, peer review and related checklists were also used as instruments to gauge the level of SPC attainment and provide continuous monitoring/feedback to instructors and students. A rubric was designed with nine assessment criteria focusing on three aspects of building envelope systems: 1) design and assembly; 2) architectural aesthetics; and, 3) building performance requirements.

In the planned focused NAAB TR, SPC [B.10.] is to be evidenced in the following three courses:

ARCT411, Architectural Design 6 (Theme: Sustainability):

Student work in the NAAB TR focus on project typologies including entrepreneurial and mixed-use projects. Projects are located on diverse sites.

ARCT330 – Materials and Methods of Building Construction 2:

This is an advanced building construction course focusing on the exploration of different types of advanced building envelope systems while using diverse case studies. The latter stage would enable them to understand how building envelopes respond to diverse needs and contexts. The course also covers elements of architectural structures and how they work in integration with different building envelops and other technical systems. This includes the studies of various envelopes, envelope systems and their analysis undertaken by the students along with integrative exercises.

ARCT230 – Materials and Methods of Building Construction I:

This course introduces students to fundamentals of construction with a focus on materials and methods. This includes individual and group exercises exploring fundamental

construction systems, techniques, and methods of assembly with a particular focus on building envelopes. A course file is also presented detailing curricular activities throughout the semester.

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

2015 Visiting Team Assessment: Not Met. Strong evidence is shown that collaboration occurs within and between batches, however, the evidence is not shown and student conversations indicate that multi-disciplinary collaboration does not occur. The students expressed a strong desire for this type of interaction.

Program activities to address C.1 Collaboration: The issue of multidisciplinary collaboration mentioned as a deficit by the last visiting team report [VTR3] has been a challenge to tackle. The B.Arch. program is offered only to female students and, hence, limits larger scope for multidisciplinary collaboration with other units hosting male students, which restrict the level of interaction between different genders in Qatar. Smart alternatives have been developed to overcome this issue.

The focus on the multidisciplinary aspects of collaboration was successfully tackled while working with practicing architects and engineers as well as other faculty members in related disciplines to participate in the design studio. This is achieved by engaging students and helping them shape their design solutions and approaches that are more integrative. This practice was particularly strong in the comprehensive design studio (ARCT 510) course. This course is complemented by other design studios and related supporting courses that have also embedded multi-disciplinary collaboration. In addition, activities also include the summer internship that our students undertake as a compulsory course. Every enrolled student is required to participate in internship twice during the senior years [ARCT 400 and ARCT 500 courses]. The first internship training should be in an architectural office, where students interact with architects, collaborating on projects supervised by mentors, and learn about the leadership roles that architects play in the setting of a design office and within the broader community as they liaise with clients, users, and regulatory authorities. Assigned faculty members formally supervise this practice training. The students are also required to prepare an internship completion report together with jury presentation. This external activity was commended by earlier NAAB visiting teams as providing a strong reinforcement of collaboration and leadership skills for our students. DAUP intends to expand the internship experience.

In the planned NAAB TR, SPC [C.1.] is to be evidenced in four courses:

ARCT530, Construction and Project Management:

This is a theory course that focuses on construction management addressing a diversity of issues including project life cycle and organization, project contract types, delivery methods, project scope management, project time and cost management (project controls), and project quality management. The course also has a collaboration protocol to undertake projects that study and access performance in case study buildings. This is achieved through collaboration between B.Arch. and Industrial and System Engineering (ISE) students. The evidence includes multidisciplinary collaboration protocols, related documentation, and a course file available in the NAAB TR.

ARCT410, Architectural Design Studio 5 – Community:

Project from this design studio focus on a typology of projects including urban mixed-use, residential, and design in historic districts. This studio focuses on both individual and group work, which fulfills SPC requirements. It also involves practitioners from the AEC industry, who work with the students to address more technical aspects of design, which enables multidisciplinary collaboration at different design stages.

ARCT333, Construction Drawing and Detailing:
This course engages students in detailed design documentation. Students collaborate on case studies and develop multidisciplinary skills within a collaborative framework involving role-playing and other activities.

ARCT331, Environmental Control Systems 1 – Acoustics and Lighting:
Evidence from this technical course explores acoustics and lighting case studies with active collaboration between architecture and industrial engineering systems students.

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.*

2015 Visiting Team Assessment: Not Met. Evidence was found of an understanding of leadership in the building design and construction process but there was little evidence of leadership in environmental, social, and aesthetic issues in their communities.

Program activities to address C.6. Leadership: In addition to the mandatory internship program previously described, students are exposed to leadership skills in Ethics and Professional Practice (ARCT531), and Construction and Project Management (ARCT530) where environmental, social and aesthetic issues in communities are addressed. In addition, students have opportunities to practice leadership in ARCT 511 Senior Project Preparation and Programming when they develop project proposals for communities, and in ARCT410 Architectural Design Studio 5 where they interact with community representatives. Leadership is addressed to:

- Demonstrate effective decision-making in social, economic and environmental aspects that enhances projects which has a profound impact on the community.

- Cultivate the abilities of students to lead projects towards achieving defined project goals.

In the planned NAAB TR, SPC [C.6.] will be evidenced in the following four courses:

ARCT531, Ethics and Professional Practice:
Evidence from this theory course introduces architects to different issues in practice, from education to firm management, community participation and leadership and the values and principles that frame professional practice.

ARCT511, Senior Project Preparation and Programming:
Senior Project Preparation and Programming is a hybrid course on pre-design and design related decision-making that helps students practice leadership skills as they engage a community that will serve as a client, define a project in response to stakeholder needs, and invite input from their peers.

ARCT530, Construction and Project Management:
The course focuses on construction management and addresses diverse management aspects including project life cycle and organization, project contract types and delivery methods, project scope management, project time and cost management (project controls), and project quality management. The course uses a collaboration protocol for student teams that includes leadership skills development work through the role-playing. Students are able to link strategy to the decision-making processes within projects leading to effective leadership. These leadership abilities are evidenced by the same program collaboration as well as the nature of multidisciplinary projects.

ARCT410, Architectural Design Studio V – Community:

Projects from this studio cover the urban scale of projects, which focuses on both individual and group work and involves consultation with community representatives and consulting experts. Through this work, students develop an understanding of the techniques and skills architects use to work collaboratively in communities.

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. At least 20% of the credits in the professional architecture degree must be outside architectural studies either as general studies or as electives with other than architectural content.

- ***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.*

2015 Visiting Team Assessment: Not Met. The curriculum has 28.75% (46 credit hours) of the total credits (160 credit hours) in General Studies, making it 2 credits short of meeting the requirement.

Program activities to address II.2.2 Professional Degrees and Curriculum: The DAUP Curriculum Committee developed a curricular proposal to reduce credit hours in the Major Electives category and add a new Major Supporting Electives category comprised of general education courses, from which every architecture student must choose one as part of their Architecture Program requirements. This reduced the number of electives by one and identified two courses, SOCI 263 Badawi Society and SOCI 467 Globalization, as optional courses for students to choose as their Major Supporting Elective. Please refer to "Curriculum Change Focused on the Addition of Major Supporting Elective" available in Section 4: Supplemental Materials. The revised curriculum was approved by the university in January of 2016. Based on this minor change, the total number of credit hours dedicated to General Studies has increased from 46 credit hours to 49 credit hours increasing the percentage from 28.75% to 30.63%, as per NAAB curriculum requirements (Table 2 next page).

Table 2. Curriculum change reflected over credit weight.

Curriculum before visit III- **Arch Major Courses Weight by block**					Curriculum After Visit III – **Arch Major Courses Weight by block**		
	Subject Block	Number of Courses	Credit Hours	Weight %	Number of Courses	Total Credit Hours	Weight %
1	Graphic communication and Design Studios	13	50 CH	31.25	13	50 CH	31.25
2	History and Theory	5	15 CH	9.375	5	15 CH	9.375
3	Building Construction, Services & Technology	6	18 CH	11.25	6	18 CH	11.25
4	Civil Engineering Related courses	6	16 CH	10	6	16 CH	10
5	Major Electives	5	15 CH	9.375	4	12 CH	7.50
6	Practical Training	2	0 CH	0	2	0 CH	0
	Total	37	114 CH	71.25	**36**	111 CH	69.375
General Courses Weight by block					**General Courses Weight by block**		
	Subject Block	Number of Courses	Total Credit Hours	Weight %	Number of Courses	Total Credit Hours	Weight %
1	Core Curriculum	11	33 CH	20.625	11	33 CH	20.625
2	College Requirement	3	7 CH	4.375	3	7 CH	4.375
3	College Elective	2	6 CH	3.75	2	6 CH	3.75
4	Major Supporting Elective	0	0 CH	0	1	3 CH	1.875
	Total	16	46 CH	28.75	**17**	49 CH	30.625

2. Changes or Planned Changes in the Program Since the 2015 Visit

Faculty retirement/succession planning

Since the previous visit in March 2015, there have been changes in the DAUP team and faculty members. While, some faculty members have left the department, new faculty members and staff have joined the department, and are involved in the B.Arch. program.

The faculty members that have left are as follows:

1. Dr. Yasser Mahgoub (Associate Professor and ex-Head of Department)
2. Prof. Attilio Petruccioli (Professor)
3. Dr. Silvia Mazzetto (Assistant Professor)
4. Dr. Essam Hallak (Assistant Professor)

The new full-time faculty members that have joined the program are as follows:

1. Prof. Kasper Oosterhuis (Professor)
2. Dr. Mark David Major (Assistant Professor)
3. Dr. Madhavi Indraganti (Assistant Professor)
4. Dr. Ahmad Ahmad (Assistant Professor)

The selection and hiring of new faculty members at the rank of full and/or associate professorship level is for individuals with broad architectural professional practice and expert-academic experience, who can provide design leadership. Prof. Kasper Oosterhuis is a well-established professional architect, design and academics. He is considered as an authority in parametric design, and will provide necessary expertise and leadership in uplifting the studio culture in the department. The new assistant professors (Dr. Major, Dr. Indraganti, and Dr. Ahmad) bring expertise in the areas of foundation design, environmental design, architectural design and structural systems, and Building Information Modeling (BIM). These four new faculty members will complement and strengthen design studio teaching at both

the foundation and upper level studios. Furthermore, the department targets and attracts part-time visiting professionals from the field, such as architects, visual artists, and designers to help our students enhance their design and 3D thinking-design skills. This would also enable them to really sense the professional practice and real-life experiences. These part-time studio tutors and design-related courses instructors have benefited the department greatly since academic year 2015/16 more recently during Fall 2017. Please refer to the department website for profiles of new faculty here.

Changes in Administration (Dean, Department Chair, Provost)

Since the previous visit in March 2015, QU, CENG, and the DAUP have all witnessed structural, leadership, and administrative changes. These changes can be summarized as follows:

- The appointment of Dr. Hassan Rashid Al-Derham as QU President effective from June 15, 2015.
- The appointment of Dr. Khalifa Nasser Al-Khalifa as Dean of the College of Engineering effective from March 10, 2016.
- The appointment of Dr. Fodil Fadli as Head of the DAUP effective from 24th April 2016.

In addition to the above changes, there were also changes involving the reassignments of some Associate Vice Presidents at the University level and those of Associate/Assistant Deans at the College of Engineering level. The changes can be listed as follow:

- The appointment of Dr. Omar Mohamed Al-Ansari as Vice President for Academic Affairs effective October 9, 2017.
- The appointment of Prof. Mariam Ali Al-Maadeed as Vice President for Research & Graduate Studies effective March 07, 2016.
- The appointment of Dr. Khalid Mohamed Al-Khanji as Vice President for Student Affairs effective October 5, 2015.
- The appointment of Dr. Khalid Al-Khater as Vice President for Administration & Finance effective May 15, 2016.
- The appointment of Dr. Abdelmagid Hamouda as Associate Dean for Academic Affairs in the College of Engineering effective from January 1, 2017.
- The appointment of Prof. Abbes Amira as Associate Dean for Research and Graduate Studies in the College of Engineering effective from January 1, 2017.
- The appointment of Eng. Aljazzi Hamad Fetais, as Assistant Dean for Student Affairs in the College of Engineering effective from September 4, 2016.

Changes in Enrollment

From an admission perspective, the program has witnessed a slight increase in admissions with new intake increasing from approximately 24 students to 26-28 students since 2015 (Table 3). There is high demand for the B.Arch. program, especially since the DAUP is the first and only department in Qatar offering such professional qualification in the architecture discipline. It is also worth mentioning that the graduates from the program are highly sought by industry. A good portion of the graduates join the graduate programs offered by the department.

Table 3. B.Arch. Program Enrolled, Registered, and Graduated Students.

Academic Year	Enrolled	Registered	Graduated
2014/2015	115	24	13
2015/2016	122	26	14
2016/2017	134	28	21
2017/2018	136	26	Expected 38

New Opportunities for Collaboration

Collaboration opportunities at DAUP span different aspects and levels. The below gives a concise insight into the new opportunities for collaboration offered and elaborated by the DAUP.

Educational: The outcome of the third visit indicated the need for a more robust collaboration between the Architecture Department and the AEC industry to address the issues related to systems and technical integration in design and, thus, generally improve design quality and output. An enhanced collaboration with the industry was viewed as a means to subject student's design studio output to more critical examination by practicing professionals, who are knowledgeable and practical about the need for integration and comprehensiveness in design. To this end, the department initiated the practice of inviting practitioners on a part-time and visiting basis to participate in design studio activities. In the past two years, several practitioners with a diverse range of expertise including architects, structural engineers, mechanical and electrical engineers have participated in design studios activities at the department. Their participation has served to enrich the knowledge and abilities of our students regarding project integration, leadership, and collaboration (Figure 5).

Research: Other collaboration activities link to the several R&D grants secured by the department faculty members, which open doors for collaboration with industry and other Higher Education institutions both in Qatar and overseas. This includes regular DAUP faculty and student participation in the Undergraduate Research Experience Program (UREP) funded by Qatar National Research Funds (QNRF).

Outreach and Engagement: Activities were also deemed necessary to link with local, regional, and international AEC companies operating in Qatar. This interaction has allowed intense exchange between DAUP staff, students, and practice professionals through guest lectures, public seminars, and site visits but also during the summer training, which is compulsory and offered by the B.Arch. program at DAUP in the 3rd and 4th year of the curriculum.

Student activities and events organized by AIAS-QU chapter proved successful, especially through the organization of events with AIA-ME and preparing the Architecture Day designed in DAUP. Those types of events provided the perfect setting to enable further collaboration at a multi-disciplinary level. Collaboration is documented in timeline and learning captures ensuring a knowledge bank from industry experts is categorized, stored, and shared. This enables new students to gain knowledge from previous collaboration efforts.

Veronica Cagliani, **Landscape Architect** KEO International Consultants	
Virtud R. Barraza, **Lead Mechanical Engineer** KEO International Consultants	
Sayed Gohary, **Lead Project Engineer** KEO International Consultants	
Wladi Francioli, **Architect/Senior Manager-BIM** Qatari Diar Real Estate Investment Company	
Francisco Trujillo Baute, **Architect/Managing Dir.** AH Asociados	
Carlos Salvador Porras, **Senior Architect** Buildings Design Management Department Public Works Authority	

Figure 5. Sample of industry/practice collaborators in design studios critics (DAUP-Fall 2017).

Significant Changes in Educational Approach or Philosophy

The outcome of the third visit generated the need for a critical evaluation of program activities, including design studio practices, with a perspective to addressing the issues raised in order to undertake a holistic quality improvement of the program based on the instructional spine in architectural education, which is design studio. This need led to the establishment of a Design Studio Enhancement Taskforce with a focused and framed mandate, which was to objectively examine ways to improve the design studio instructional process and outcomes. The task force identified some fundamental issues with studio instruction. The main issues can be summarized as follow: 1) An emphasis on the concept to the detriment of a process-based in approach to design; 2) A limited utilization of 3D-formal exploration as a means to design project solutions; and, 3) the need to focus on some basic design thinking skills and requirements. This led the task force to advocate for a shift to a process-based approach to the design studio, which should be strongly related to responses to project issues. To facilitate such a shift the following recommendations were developed: 1) Emphasis on developing means of implementation of required design principles based on SPCs requirements; and, 2) A set of grading rubrics were designed to be used for assessing students work at different stages of the design process with the rubrics serving as both formative and summative means of assessing studio projects. Among other significant changes introduced was the development and operation of a continuous but useful peer review process. The peer reviewers collect a sample of students work and evaluate the level of achievement of the SPC of interest using a set of customized peer review rubrics developed as part of the enhancement activities. The Reviewer is able to score performance in SPC achievement and provide feedback to course instructors and students to facilitate and strengthen further improvement action. The work of the task force was compiled as a report and presented to the faculty based on which practices were reviewed and changes initiated. Materials related to these changes are included as part of supplementary information uploaded to the cloud storage of the Department.

Based on the above – and in light of major changes happening in the educational world, in general, and architectural education, in particular – the department is preparing and developing an important shift in the design philosophy of the department.

A shift towards the more digital realm of design, including a focus on morphogenesis, parametric design, Virtual Reality and Worlds, and digital production, but also bridging the gaps between theory and practice, between concepts and development, and between process and product. In other words, a paradigm shift in the design studio culture is already happening in the department and its B.Arch. program, where the interactivity between the students and their environment is being strengthened and means of enhancing 3D design skills are being enhanced. This is happening thanks to the establishment and reshuffling of certain courses such as design methods in architecture, basic-foundation courses at 100-200 levels but also an integrative approach elaborated at higher levels of 400-500 design studios and related hybrid courses. Due to current trends in architectural education and professional practice around the world, the DAUP developed a "DAUP Emergent Design Philosophy" document and the existing "DAUP Design Studio Guidance Document" was reviewed and updated to better reflect these trends. This paradigm shift in the design studio will bring new insights and directions for the teaching and instruction in a process-based design approach to the DAUP culture.

Changes in Physical Resources

Qatar University is the public university in the State of Qatar. Hence, it is fully supported by the government of Qatar. An annual budget proposal, produced by the Office of the University President is presented to the Board of Regents for approval and then to the Ministry of Finance for authorizing action on its financial contribution for the upcoming fiscal year (September-August). The government has changed the fiscal year to "January to December", starting from January 2016.

Since the last visit, the department managed to increase its physical resources through the expansion of its spatial facilities and assets. The DAUP allocated budget has observed a steady increase in its personal, operational, students support, and staff development costs during the last three years (Table 4). This trend is meant to be kept with further expansions.

Table 4. Summary of figures for operation budget for DAUP during the last 3 years.

Budget Allocation DAUP	2015-2016 (QR)	Y 2016 (QR)	Y 2017 (QR)
Personnel costing (Salaries; Benefits; Overtime; etc.)	2,533,250	2,804,250	3,225,007
Operations and Equipment	397,782	477,828	456,972
Student Support	200,000	200,000	300,000
Professional Development	150,000	200,000	250,000
Total	**3,281,032**	**3,682,078**	**4,231,979**

Due to the paradigm shift in its design studio culture, the need for more foundation studios-related activities pushed the department to secure an Artwork Lab in the C07 building, where the department offices and studios are located. The Artwork Lab provides the students with a unique facility capable of enhancing their 3D design skills through abstract and concrete artistic design activities. The department also re-arranged the design studio spaces and communal areas. A digital printing lab has been developed as well as the restructuring of the construction materials lab, building science lab, and the model-making workshop. In the near future, there are prospects to expand further and open a male section. The new facilities of DAUP in the new College of Engineering building (to be completed early 2019) offer the opportunity to double the spatial resources of the department.

The department through its research-led teaching has developed a proposal to launch the HyperBody Qatar [HQ] Lab. HQ Lab would represent a unique architecture laboratory in the region and offers DAUP students/staff with a new experience to link humans to the machine and provide an innovative approach to parametric design. This will further enhance the design thinking and 3D developmental skills of DAUP students.

Figure 6. Photos of DAUP related spaces, labs, and resources.

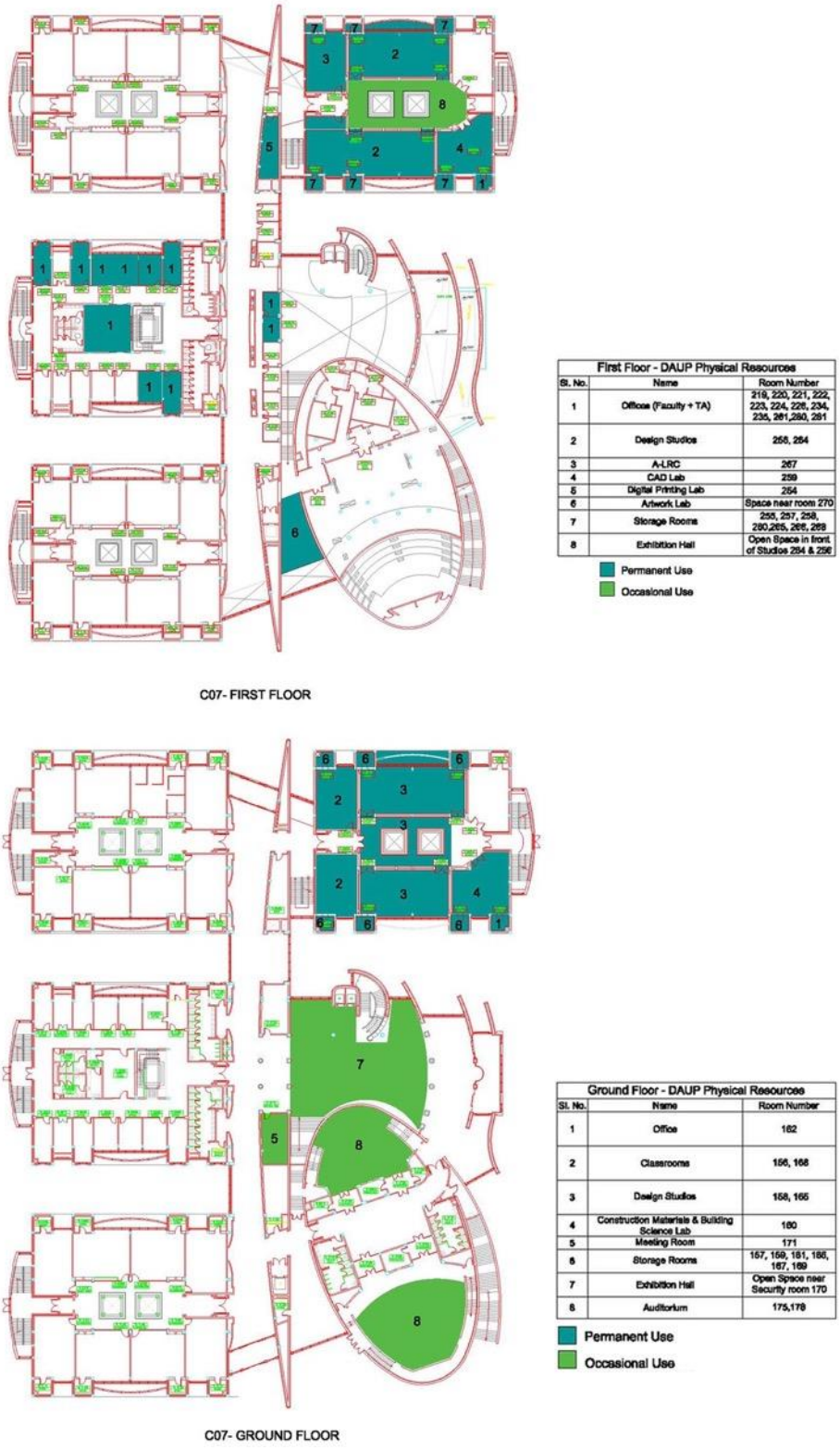


Figure 7. Plans of Female Engineering Building (C07); the premises of DAUP.

3. Identity and Self-Assessment

a. **History and Mission**:
While there here has been no change in the history and mission of the University since the last visit. Minor amendments occurred in the department vision and mission to harmoniously match the new design philosophy and department directions.

The visions for the University and College are reiterated as below.

Qatar University is the first national university in Qatar. It is the largest university in the nation in terms of student body. Qatar University has always identified itself as an organic member of the larger Qatari community and strives to constantly, link its development to that of society. As an active member of the community, the university aims to strike a balance between stability and continuity on the one hand, and flexibility and response to evolving needs on the other. Capacity building remains an important focus for the university to meet the growing need for well-qualified graduates. The university engages in strategic planning to ensure planned growth and development. Three fundamental principles guide the Qatar University reform process: 1) autonomy; 2) decentralization; and, 3) accountability; each contributing uniquely towards a balance of steady and effective reform.

Qatar University is an intellectual and scholarly community characterized by open discussion, free exchange of ideas, respectful debate, and a commitment to rigorous inquiry. All members of the University being faculty, staff, and students are expected to advance the scholarly and social values embodied by the university. The university community has a diverse and committed faculty who teach and conduct research, which addresses relevant local and regional challenges, advances knowledge, and contributes actively to the needs and aspirations of society. Qatar University provides high-quality undergraduate and graduate programs that prepare competent graduates, who are destined to shape the future of Qatar.

Qatar University Vision:

> To be regionally recognized for distinctive excellence in education and research, an institution of choice for students and scholars, and a catalyst for the sustainable socio-economic development of Qatar.

Qatar University focuses on five key performance areas:

1. Prepare competent graduates by providing high quality education.
2. Conduct quality research that addresses contemporary challenges and advances knowledge.
3. Identify and meet the needs and aspirations of society.
4. Provide effective and efficient support and facilities to academic missions.
5. Provide effective and efficient support, facilities, and a supportive environment for the university community.

Qatar University Mission:

> Qatar University is a national institution of higher education in Qatar. It provides high-quality undergraduate and graduate programs that prepare competent graduates, destined to shape the future of Qatar. The university community has diverse and committed faculty who teach and conduct research, which addresses relevant local and regional challenges, advances knowledge, and contributes actively to the needs and aspirations of society.

College of Engineering Vision:

> The College of Engineering will be recognized in the region for its outstanding education, research and community engagement, and for the quality of its socially responsible graduates.

College of Engineering Mission:

The mission of the College of Engineering is to prepare globally competent and socially responsible graduates by providing high-quality education. The college through its quality programs and partnerships fosters research and scholarly endeavors that advance knowledge and contributes to the welfare of the country.

Strategic Objectives:

- Prepare globally competent and socially responsible graduates by providing quality education.
- Establish effective partnerships that can add value and contribute to the college programs.
- Foster research and scholarly endeavors that advance knowledge.
- Contribute to the welfare of the country.
- Create an enriching supportive working environment for the college community.

Architecture Program Vision

The vision of the program is to be a leading provider of education and research for the disciplines of the built environment in the MENA region.

Mission and Educational Objectives;

a. The mission of the B.Arch. program is to pursue the highest academic standards in the best tradition of Qatar University by:

- Excellence in teaching and its instructional delivery.
- Exemplary dissemination of knowledge in scholarly research and artistic production.
- Exploration in the advancement and application of professional knowledge.
- Expertise in service to the industry, local community, and human societies worldwide.

Our faculty, staff, and students expect and demand the best of themselves and each other in fulfilling this mission and objectives together.

b. **Responses to the Five Perspectives**: *Programs must describe how this section has changed since the most recent APR was submitted.*

There has been no significant change to the five perspectives from the time of the last NAAB substantial equivalency visit (March 2015) to the present. The following is a reiteration of some of the core principles and values embodied in the five perspectives:

A. Architectural Education and Academic Community

- The faculty and students of the Department of Architecture and Planning make unique contributions to the university in the areas of teaching, scholarship, community engagement, and service. Faculty members are evaluated on the basis of three main areas of contribution to the university: teaching, research and service, which include services to both the university community and the general public. The annual appraisal of architecture faculty is based on these parameters.

- Academic freedom is ensured through the Faculty Conduct Code, which stipulates that faculty members of Qatar University serve in a range of capacities with corresponding behavioral expectations.

- Responding to the university mission, the DAUP promotes architecture as a professional discipline and course of study that involves the integration of art and design, technology, and society as main pillars of the profession with emphasis on the regional context.

B. Architectural Education and Students

- Students joining the B. Arch Program come from a disciplined secondary educational system and their entry into the university system begins with the mandated foundation year programs. The focus of this program is the development of English language skills as well as basic mathematics, research, computer, and communication skills. Students with exceptional abilities in these areas are allowed to join the college, then the department directly after high school.

- All students, whether entering directly to the program or after passing the foundation program, must pass an aptitude test and interview set by the department. Based on their performance in the test, students are ranked and selected.

- The Bachelor of Architecture program is an intense 160 credit hours, which are directed at the development of conceptually and technically proficient professional architects.

- The department provides a supportive and nurturing environment where personal and professional growth is enriched by the diverse make-up of the faculty, students, and the communities in the multi-cultural context of Qatar. In addition to classroom and design studios as learning settings, students have further multiple learning opportunities that significantly add to their preparation as future socially responsible professionals.

C. Architectural Education and Regulatory Environment

- The main organization that regulates the professional environment of architecture in Qatar is the Accreditation Registration Council, which represents the architectural profession in Qatar. It is engaged in producing an extensive series of practice, management and law reports on matters related to architectural practice and building industry.

- The department and the B.Arch. Program places emphasis on the ethical role of architecture as a profession, which protects the public while broadening students' understanding of the principles, mechanisms, and processes that govern its practice.

- The DAUP graduates pass an exit exam at the end of their studies. This exam prepares them for the architects' registration process run by the Qatari Ministry of Municipalities and Environment (MME). The DAUP with the support of its Industry Advisory Board (IAB) and the university is drafting a proposal to enable our graduates to become MME C-grade licensed architects as soon as they graduate.

D. Architectural Education and the Profession

- The Department of Architecture views that the primary concern of future architects is to produce three-dimensional space and form at various scales to successfully accommodate human activity with a positive impact on the environment.

- The program emphasizes the nature of the evolving profession of architecture in Qatar and the Gulf region in a global world, characterized by emerging new architectural services and complex building types, activities, and a rising interest in place-making while addressing key contextual particularities.

- The program advocates a number of core principles towards achieving a correspondence between architectural education and the profession, which is reflected in a number of curricular and extra-curricular activities undertaken by the faculty and the students. The aim is establishing strong links between architectural pedagogy and architectural practice.

E. Architectural Education and the Public Good

- The design studio projects and faculty/student research are tailored to address the many environmental, social, and economic challenges that face Qatar. Great care is given to cultivate a sense of responsibility and civic engagement in the students and to make them aware of the impacts of architectural design in this evolving context, in general, for the promotion of the public good, health, and welfare.

- Environmental, social, and economic challenges are addressed in a wide variety of courses across the program. However, the department believes in the value of going beyond knowledge acquisition to a paradigm of knowledge production through research and pre-design studies undertaken in most studio assignments in addition to the students/ faculty research.

- The department faculty members greatly contribute to the university and the professional community In Qatar through committees and activities within and outside the university, ranging from strategic planning, research and graduate studies, curriculum development and assessment, campus planning and building utilization, and institutional planning.

c. **Long-Range Planning**:
Long range strategic planning for the Department of Architecture takes place within the contexts of College of Engineering and University strategic planning levels. There is a nominated member who represents the Department in meetings and activities of the college-level strategic committee. The Department generally prepares a yearly plan, which has to be aligned with the College strategic plan. The strategic planning process generally leads to updated plans that form the basis of action. Links to the current strategies for both the College of Engineering Strategic Plan and Qatar University Strategic Plan have been provided as part of supplementary materials.

On a more specific version of the mid- and long-term planning, the department will focus on the B.Arch. program, in particular, by continuing the enhancement strategy towards excellency in architectural education. In fact, the department is targeting a further uplifting of the program towards new horizons, which would fit with the updated conditions of NAAB accreditation (NAAB 2014).

The department and the overall program will be adopting the recently updated design studio philosophy and enhanced strategy towards 3D design thinking skills, opting for an innovative instructional approach that links architectural integrative systems to emotive artistic creativity. By doing so, the program aims to encapsulate an effective tool for improving: 1) critical thinking and representation skills and abilities (Realm A-2014 NAAB conditions); 2) Building Practices, Technical Skills, and Knowledge (Realm B); 3) Integrated Architectural Solutions (Realm C); and, 4) Professional Practice (Realm D). The department aims to nurture and foster the communication, critical thinking, creativity, innovative skills, and professional aptitudes of our students. It will help to enable their acquisition of skills and abilities needed to address the increasingly complex

requirements for facilities, which architects have to address and design at the dawn of the 4th Industrial Revolution.

d. **Program Self-Assessment**:
The self-assessment activity of the program has continued in line with practices at university, college, and departmental levels since the last NAAB visit.

Qatar University requires extensive self-assessment procedures in all aspects of the academic work undertaken by administrators, faculty, and students. The Assessment activities take the form of the following tasks and activities, which are seen as complementary and effective for the continuous improvement of assessed and reviewed programs.

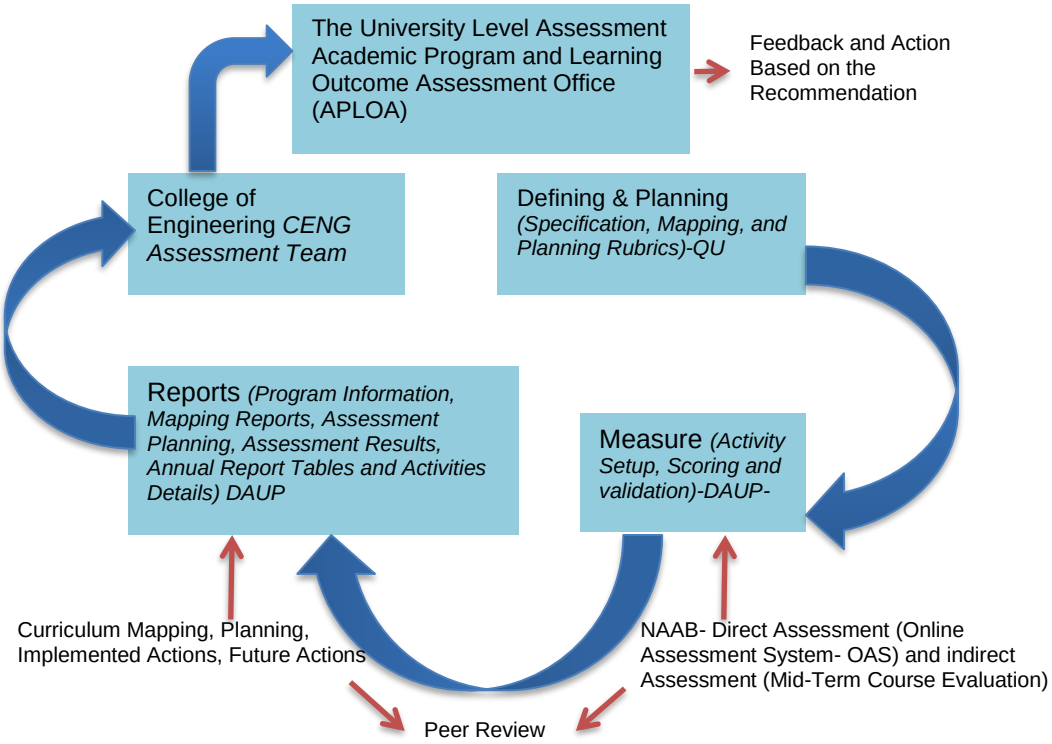


Figure 8. DAUP assessment processes (2016).

Please refer to Figure 8 for a schematic diagram showing the whole system of assessment and related procedures.

- Faculty performance review and evaluation conducted at university level
- The annual online assessment of academic programs conducted at university level
- Student feedback and evaluation on instruction and instructors at university level
- Peer-observation conducted at college level
- Students feedback conducted at college level
- Mid-term course evaluation at department level
- Peer review process at departmental level

4. Supplemental Material

The table below lists all supplemental materials mentioned in the text and related to improvement actions/changes implemented in the Department since last NAAB visit (March 2015). The table also has a hyperlink for access to these materials from the Department's Cloud Storage – namely called "DAUP Shared Folders."

Table 5. of Supplemental Material: documents and related hyperlinks.

S/No	Document
1	DAUP - NAAB Focused Visit Folder
2	DAUP Faculty Profiles (includes Department Head and all Faculty/Staff Profiles)
3	NAAB Matrix (Latest Version, September 2017, SPCs distribution over courses)
4	Design Studio Enhancement Strategy Report
5	Design Studio Project Grading Rubrics
6	Design Studio Framework
7	Design Studio Sequences
8	Peer Review Process
9	Curriculum Change
10	Curriculum Change Focused on the Addition of Major Supporting Elective
11	Protocol for Multidisciplinary Collaboration with Mechanical and Industrial Systems Engineering (IES)
12	DAUP Emergent Design Philosophy (Vrs.1.0 October 2017)
13	DAUP Design Studio Guidance Document (Vrs.2.0. September 2017)
14	College of Engineering Strategic Plan
15	Qatar University Strategic Plan
16	DAUP_QU APLOA Assessment Reports
17	Mid-Term Evaluation Reports
18	Independent Program Reviewer Biographies
19	Any Other materials would be updated and added to the department website.

Note: Kindly note further information is available on the department website and related links.

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