NAAB®

Yildiz Technical University
Department of Architecture

Visiting Team Report
Visit Three for Substantial Equivalency

Bachelor of Architecture (160 credits)

The National Architectural Accrediting Board
April 7-10, 2019

Visit two: October 2015

Vision: The NAAB aspires to be the leader in establishing educational quality assurance standards to enhance the value, relevance, and effectiveness of the architecture profession.

> **Mission:** The NAAB develops and maintains a system of accreditation in professional architecture education that is responsive to the needs of society and allows institutions with varying resources and circumstances to evolve according to their individual needs.

Contents

I.   Summary of Team Findings

1.   Team Comments and Visit Summary

The team would like to sincerely thank the Department of Architecture (DoA) for the work in preparing for our visit and for the hospitality we received throughout the duration of our trip. The team room was well organized and allowed us to complete our review with ease. We wish to especially thank the following:

- Çiğdem Polatoğlu, Director of Architecture
- İrem Gençer, Vice Head
- Gökçe Tuna Taygun, Vice Head
- Gülay Zorer Gedik, Dean
- Pınar Arabacıoğlu, Vice Dean
- Almula Köksal Işıkkaya, Graduate Programs Coordinator
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And, of course, our appreciation is extended to all of the faculty, staff, and students who so graciously participated and shared their time with us during our visit.

The DoA's campus and historic palace buildings are located in a special place in Turkey. Students and faculty alike noted that they feel comfortable and nourished by their surroundings. In addition, there is a very special relationship between faculty members and between them and the students.

There is evident pride in the students from the school administrators, faculty and staff, and the team notes from our meetings that students are "ambitious and humble" and very appreciative of the special relationship between them. The students are equally appreciative of the special relationship they have with their faculty, many of whom they consider mentors.

During meetings with students they were clear that they consider a strength of the program is the supportive environment and the open communication between faculty and students. They also believe that the combination of conceptual and technical work—and the way in which the two are balanced—is an advantage of the program. There is a strong culture of student and faculty participation in extracurricular design competitions, with 52 students receiving recognition and top prizes in the past two years.

The university and the DoA itself are recognized as a top program in Turkey, and student admissions reflect that. As a result, the school admits students who test in the top percentiles of all Turkish students and that is clearly demonstrated in their work.

Since the last visit, the program has been hard at work improving on areas noted by the prior team, such as identifying permanent studio space and modifying the curriculum as needed to include elements that were not as clear a part of the curriculum on the prior visit. The team commends their efforts and notes that significant progress has occurred. That said, there are some conditions that remain unmet since the last visit. In many of those cases, the material is in its first offering, others need more consistency. The team has taken great care in describing the current state of those conditions and is confident that with ongoing work, all will be satisfied in short order.

2.   Conditions Not Met
I.2.3. Physical Resources
II.1.1. Student Performance Criteria:

3. **Progress Since the Previous Visit**

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.

Visit Two Team Assessment: **NOT MET**. This visiting team did not find a long-range plan in the APR. The program is encouraged to identify multi-year (five-year) objectives for continuous improvement within the context of its mission and the culture of the institution.

> **Visit Three Team Assessment of Long-Range Planning (2019)**: **MET**. The program has completed its Strategic Plan for 2019-2024, which is based on YTU's strategic plan. The program's strategic plan demonstrates self-evaluation processes, continuous improvement and planning strategies for education, research and service missions. The team believes that the program's processes now meet the standards as set by the NAAB.

I.1.5 Self-Assessment Procedures. The program must demonstrate that it regularly assesses the following:
▪ How the program is progressing toward its mission.
▪ Progress against its defined multiyear objectives (see I.1.4 Long-Range Planning) since the objectives were identified and since the last visit.
▪ Strengths, challenges, and opportunities faced by the program while developing learning opportunities in support of its mission and culture, the mission and culture of the institution, and the five perspectives.
▪ Self-assessment procedures shall include, but are not limited to:
  o Solicitation of faculty, students', and graduates' views on the teaching, learning and achievement opportunities provided by the curriculum.
  o Individual course evaluations.
  o Review and assessment of the focus and pedagogy of the program.
  o 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.

Visit Two Team Assessment: **NOT MET**. This visiting team did not find evidence of self-assessment procedures in the APR. Self-assessment looks at the achievement of the long-term (five years) strategic priorities in a deliberate, periodic review process.

> **Visit Three Team Assessment of Self-Assessment Procedures (2019)**: **MET**. The program has illustrated its comprehensive self-assessment procedures in the APR and also in the policy review folders that were provided in the team room. The team feels that the program's processes now meet the standards as set by the NAAB.

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.

Visit Two Team Assessment: **NOT MET**. This visiting team found the physical resources to be inadequate for the program because there is no dedicated design studio space. The design studios are the same classrooms used for lectures and seminars. Dedicated studio space would allow more contact between the students and the faculty, increase the visibility of the work, and allow the space to be modified for the appropriate type or method of learning.

Visit Three Team Assessment of Physical Resources (2019): **NOT MET**. The school has made notable progress since the last visit to make more space available for studio use; however, given the constraints of the current campus buildings, the program is still unable to dedicate exclusive studio space for all design classes. Since the last visit (2015), the program has acquired the use of 3 large lecture spaces in an adjacent building and has moved lectures to those spaces in order to help meet the demand for studio within the Architecture building. Beginning in the 2017-2018 spring semester, they have been able, through scheduling of courses, to provide more contiguous studio use of those spaces, but it remains available during class times only.

The sixth and seventh semester studios AD5, AD6, and AD7 now have dedicated studio space that is available 24/7; the final semester studio is self-directed study and relies only on periodic meetings and critiques. The program also identifies open times when rooms are available and publishes those times on the website, so students are always aware of space availability. In meetings with students, they indicated that students from other sequences are welcomed to join them in their studios and frequently do. They also appreciate the historical nature of this facility and indicated that they felt as if enough dedicated space has been provided.

The program continues to plan for more rooms that can be made available as dedicated studio space, in coordination with the university rectorate. The planned addition of an exterior elevator is moving through the approval process. Once realized, the work will make all levels of the building accessible. In the meantime, people needing assistance are moved between floors using a portable lift made available by the deanship for the program's use.

While the school is making continuous progress to remedy the lack of dedicated studio space, this requirement remains unmet.

A.5. **Investigative Skills:** *Ability to* **gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.**

Visit Two Team Assessment: **NOT MET**. Evidence was not found in either MIM 1051 Building Theory and Design 1 or MIM 1012 Architectural Design 1. The visible ability to apply gathered research to design projects was not found, and this visiting team attributes this to the lack of design process documentation for projects.

Visit Three Team Assessment of A5 (2019): **MET**. Evidence5 of student achievement can be found in MIM 4000 - Graduation Thesis, and affiliated course, MIM 4012 - Architectural Design 7. This criterion is now **MET**.

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

Visit Two Team Assessment: **NOT MET**. MIM 2012 Architectural Design 3 — This visiting team found evidence in this course only in one high-pass project using basic architectural and environmental principles in design; however, the low-pass projects reviewed only met the basic architectural principles. MIM 1062 Building Theory and Design 2, was listed as meeting this criterion but since this is a lecture course, ability level was not found.

> **Visit Three Team Assessment of A6 (2019)**: Evidence of student achievement can be found in student projects for MIM 4011 - Architectural Design 6. This criterion is now **MET**.

A.11. **Applied Research:** *Understanding* **the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.**

Visit Two Team Assessment: **NOT MET**. This visiting team did not find evidence for this SPC covered in the three courses listed: MIM 2012 Architectural Design 3, MIM 3011 Architectural Design 4, and MIM 4011 Architectural Design 6. An understanding level of evidence was not found in the presented work in determining the function, form, and systems and their impact on human conditions and behavior.

> **Visit Three Team Assessment of A11 (2019)**: Evidence of this SPC is found beginning in MIM 2011 - Architectural Design 2, where indicated on the matrix provided by the program, however, it is inconsistent at this level. Better, more consistent and conclusive evidence was found in the later Design sequences, particularly in MIM 4012 Architectural Design 7. This criterion is now **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**.

Visit Two Team Assessment: **NOT MET**. MIM Architectural Design 3 — This visiting team did not find evidence in this course. Accessibility must be shown as a complete system.

> **Visit Three Team Assessment of B2 (2019):** The program has made progress in this area, and accessible design is now part of the curriculum. The courses indicated in the SPC matrix as demonstrating these abilities are MIM 2012 - Architectural Design 3 and MIM 1052 - Building Theory and Design. In the team's review of student work presented for both courses, and in the other material provided during the visit, we were unable to find consistent evidence of student performance at the ability level. Therefore, this criterion remains **NOT 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.**

Visit Two Team Assessment: **NOT MET**. MIM 1062 Building Theory and Design 2 — The visiting team found this SPC met the level of understanding but not ability.
MIM 4011 Architecture Design 6 — The visiting team found evidence in this SPC only in one high-pass project, but no low-pass work had evidence.

Visit Three Team Assessment of B3 (2019): Evidence of student achievement was found in the combined student work for MIM 3011 - Architectural Design 4. This criterion is now **MET**.

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

Visit Two Team Assessment: **NOT MET**. MIM 3012 Design 5 — This visiting team found no evidence of this SPC at an ability level. Components of life-safety were found to be at an understanding level (showing stairs, etc.), but the application of understanding life-safety as a total system (two means of egress and path of travel, etc.) was not found.

Visit Three Team Assessment of B5 (2019): Evidence reviewed from courses MIM 3012 Architectural Design 5 and MIM 4012 - Architectural Design 7 inconsistently shows an ability to apply basic principles. The team acknowledges that building codes are different than those in jurisdictions across the U.S. However, not all projects show a basic understanding or application of multiple means of egress, path of travel, and dead-end corridors. This criterion remains **NOT MET**.

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	

Visit Two Team Assessment: **NOT MET**. MIM 4012 Architectural Design 7 — This visiting team found no evidence of life safety or accessibility criteria.

Visit Three Team Assessment of B6 (2019): Evidence provided from MIM 4012 - Architectural Design 7, does not consistently show evidence of student capacity to integrate all of the SPC listed above. Overall, student projects do not show adequate integration of life safety, sustainability, environmental systems, and structural systems. This item remains **NOT MET**

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.

Visit Two Team Assessment: **Not Met.** MIM 3031 Building Physics 1 — This visiting team did not find the evidence in this course. Evidence was found only in cladding details but no understanding of *appropriate application of building envelope systems and associated assemblies … and energy and material resources.*

> **Visit Three Team Assessment of B10 (2019)**: Evidence of student understanding was found in a combination of the student work for MIM 2101 - Construction Elements of Building 2, MIM 3031 - Building Physics 1, and MIM 3042 - Building Physics 2. This criterion is now **MET**.

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

Visit Two Team Assessment: **Not Met.** MIM 4012 Architectural Design 7 — This visiting team found no evidence for this SPC. Only individual projects were presented. Collaboration at ability level must show teams involved in completing design project work.

> **Visit Three Team Assessment of C1 (2019)**: The team found improvement by the program in this criterion. Evidence of student ability to work in collaboration was found in MIM 3032 - Analysis of Historical Buildings. Evidence of student ability to work in collaboration in multidisciplinary teams was not found. The program acknowledged that this is known to be deficiency since an evaluation of the curriculum last year and is working to implement it into required coursework. This is part of Goal 2 in the Long-Range Plan found in section I.1.4 of the APR. Currently the program has incorporated multidisciplinary collaboration into its Social Electives where they collaborate with other disciplines like Naval Architecture and Urban Planning. This item remains **NOT MET**.

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.**

Visit Two Team Assessment: **Not Met.** This visiting team found no evidence for this SPC covered in the combination of three classes: MIM 2001 Internship 1 (contracts), MIM 2002 Internship 2 (construction), and MIM 4001 Internship 3 (preservation). This evidence indicates that all student internships are very different in what is being learned. Providing a shared set of structured learning objectives to each of the internship firms might assist in meeting this SPC.

> **Visit Three Team Assessment of C3(2019)**: The team found evidence of this criterion in MIM 3052 - Process and Progress in Modern Construction Industry, and in a combination of the student documentation and student output questionnaire results provided in the APR Appendix for MIM 2001 - Internship 1. This criterion is now **MET**.

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

Visit Two Team Assessment: **Not Met**. MIM 4041: Installation Knowledge. No evidence found.

> **Visit Three Team Assessment of C4 (2019)**: The program shows progress in this area. Evidence of project delivery methods were found in MIM 4031 - Construction Management and Economics. However, competing for commissions, selecting consultants and

assembling teams were missing from the work in the team room. The team notes that while this has now been incorporated in the current (spring 2019) offering of MIM 3052 - Process and Progress in Modern Construction Industry, it is in progress and student work has not been completed at this time. As a result, this criterion remains **NOT MET**.

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: **Not Met.** This visiting team found no evidence for this SPC covered in the combination of three classes: MIM 2001 Internship 1 (contracts), MIM 2002 Internship 2 (construction), and MIM 4001 Internship 3 (preservation). This evidence indicates that all student internships are very different in what is being learned and that the internship firms are not provided with a shared set of learning objectives.

Visit Three Team Assessment of C5 (2019): Evidence of student understanding was found in a combination of the student documentation and student output questionnaire results provided in the APR Appendix for MIM 2001 - Internship 1. This criterion is now **MET**.

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**.

Visit Two Team Assessment: **Not Met.** MIM 3052 Process and Prog. in Mod. Const. Ind. — This visiting team found no evidence for this SPC. Courses listed that also do not meet this SPC include MIM 4031 Construction Management and Economics and MIM 4012 Architectural Design 7.

Visit Three Team Assessment of C6 (2019): Evidence of understanding of this material was found in the coursework of MIM 3052 - Process and Progress in Modern Construction Industry. This criterion is now **MET**.

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.**

Visit Two Team Assessment: **Not Met**. This visiting team found no evidence for this SPC covered in the combination of three classes: MIM 2001 Internship 1 (contracts), MIM 2002 Internship 2 (construction), and MIM 4001 Internship 3 (preservation). This evidence indicates that all student internships are very different in what is being learned and that the internship firms are not provided with a shared set of learning objectives.

Visit Three Team Assessment of C8 (2019): Evidence of understanding of this material was found in the coursework of MIM 3052 - Process and Progress in Modern Construction Industry. This criterion is now **MET**.

4. **Causes of Concern**
None

**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 Three Team Assessment: The program's mission and vision statements as well as its objectives demonstrate this requirement. Further information is found in the program website. (http://www.mim.yildiz.edu.tr/en/mim/1/Vision---Mission/134)

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 Three Team Assessment: The APR describes how studios are conducted. In meetings with the students, it was clear that the program has a very positive and respectful learning environment. The

diversity of students, faculty, and staff provides for a culturally rich international environment in which each person is equitably able to learn, teach, and work. Although there is not currently a policy on the culture and equity of the school that is available to everyone, there are documents that the faculty had input on and student responses from questionnaires influenced that are awaiting approval from the YTU Senate to then be disseminated to faculty and students. Informally these policies have already been discussed among faculty and students.

During the visit, students noted that faculty-student communication is a strength of the program, and they feel very supported. The results of a student questionnaire in 2018 led to the establishment of an annual meeting, to be held every June, to allow students to participate in an open discussion and assessment of their education. Previously, students requested more studio hours, more computer focused classes, and more encouragement which the program has worked to address since then. Outside of that, it is made clear to the students that faculty and administration have an open-door policy and can also be reached via social media, email, and meeting with them at the school. Students who have concerns or challenges are met with support by faculty who are willing to work with them to help them succeed. Briefings from the administration are conducted to cover challenges that come up from multiple students as well as new policies and updates. The students are encouraged to think critically about everything which they say is a strength of YTU and they grow to appreciate it as they progress through their schooling. Faculty has also expressed that they receive strong support from the administration. The administration is aware that the success of the students and school depend on their collaboration with the faculty. It is evident that there is a conscious effort to disseminate and share information, resources, and work throughout the school whether it is from students, faculty, or outside the school.

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 Three Team Assessment: Contributions to the institution in the areas of teaching, community engagement, service, and scholarship are evident throughout the program.

YTU DoA offers formal (courses etc.) and informal activities (workshops, seminars, exhibitions, technical trips etc.) not only with the Department of Urban and Regional Planning but also with other academic units such as Faculties of Engineering, Art and Design and School of Foreign Languages. Faculty members give courses at other departments and also at different foundation and state universities.

The program makes significant contributions to the community engagement and service activities. Faculty members actively participate in expertise reports, municipality counseling, training

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

programs in the Continuous Education Center; work as representatives of the Union of Chambers of Turkish Engineers and Architects (UCTEA); contribute to international collaboration with international institutions such as International Council of Monuments and Sites (ICOMOS), Le Centre National de la Recherche Scientifique (CNRS-INHA), International Association for Shell and Spatial Structures (IASS), International Council for Research and Innovation in Building and Construction (CIB) and are involved in the International Center of Urban Studies (ICUS), Research Center of Historic Peninsula and Research Center for Preservation of Historical Heritage (TAMIR).

Apart from the Higher Education Student Loans and Dormitories Institution that provides support to students who have economic constraints and to motivate them by rewarding their successes, YTU has its own scholarship system. Besides YTU scholarships, YTU Foundation (YTUV), Yıldız Association for Architecture, Education and Culture (YÜMFED), Alumni Association (YTUMED), Çağdaş Yıldızlılar Foundation (ÇYD) provides scholarships. Scholarships may be as much as to provide the student's monthly expenditure such as food, lodging, course material, clothing, and transport.

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 Three Team Assessment: As an integrated global city, Istanbul provides a rich, historic setting for the students of architecture. During the team's visit, the students expressed their appreciation for being surrounded by the history of the campus and city. The architecture program's curriculum is designed so that students understand the assets of the city of Istanbul and the rest of Turkey. Students are required to take two internship courses, one in an office environment and one in a construction environment. There is then a third, optional, internship course that focuses on historic preservation. Through these requirements as well field trips and social electives that can include courses outside the architecture program, students gain exposure to the profession and a diverse range of subjects and environments. Students and faculty both regularly participate in competitions and bring home top prizes. The faculty describes the overall student body as an ambitious group and the students are encouraged to be involved with and even start their own organizations. Faculty also encourage students to use research in their courses, and many students have expressed interest in obtaining their master's and PhD in the future.

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 Three Team Assessment: The program works closely with the Chamber of Architects of Turkey (CAT), which is the regulatory body for architects in Turkey. The CAT also controls architectural projects in Turkey as a required "review" prior to the submission of projects to the local authorities having jurisdiction. The relationship includes joint internship programs and workshops offered collaboratively. Examples include the Building Information Center, the Construction Center and an Architectural Portal titled "Arkitera." Several joint activities occurring in 2017-2018 were listed in the APR and discussed during our visit. The relationship, particularly with the local Istanbul Metropolitan Branch of the CAT, provides a constant exchange of information and enables student participation in discussions on legal regulations, provides them access to knowledge of legal processes and professional practice requirements.

In addition to this relationship, the architecture curriculum includes a compulsory three-course internship component (MIM 2001, MIM 2002 and MIM 2003). This provides students with first-hand knowledge of practice requirements. Finally, legal and practice responsibilities are discussed, in detail, in several courses which are discussed individually, below.

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 Three Team Assessment: The DoA engages the architecture profession in various ways: a) direct participation in education through the use of design professionals as studio instructors or jury members, as lecturers or speakers and through various discussion opportunities; b) indirect contribution through competitions, workshops, summer schools and internships as well as through participation with CAT, the Architectural Foundation and the Building Information Center among others.; c) through lifelong learning and research activities.

As indicated above, the program also engages the profession through relationships with local regulatory agencies and other bodies which, in the context above, provides students with access to practice but in this context also serves to engage the profession in the academy.

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 Three Team Assessment: Through theoretical and practical coursework and extracurricular activities, students are exposed to topics that prepare them to engage within the local and global communities in which they might practice. Students regularly participate in design competitions and workshops that focus on topics that engage with environmental, social and economic challenges. Research projects supervised by DoA academic staff range in topics from energy-efficient design for lighting, earthquake resistance for traditional buildings, high

performance concrete, and reuse of historic buildings and preservation and re-application of traditional construction techniques. Student clubs, such as "How About Architecture?", YTU PUSULA, and YTU Design Club, provide students with opportunities to engage in the academic community and learn leadership and service skills.

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 Three Team Assessment: The program has completed its Strategic Plan for 2019-2024 which is based on YTU's strategic plan. The program's Strategic Plan demonstrates self-evaluation processes, continuous improvement, and planning strategies for education, research, and service missions.

I.1.5 Self-Assessment Procedures*: The program must demonstrate that it regularly assesses the following:*
- *How the program is progressing toward its mission.*
- *Progress against its defined multiyear objectives (see I.1.4 Long-Range Planning) since the objectives were identified and since the last visit.*
- *Strengths, challenges, and opportunities faced by the program while developing learning opportunities in support of its mission and culture, the mission and culture of the institution, and the five perspectives.*
- *Self-assessment procedures shall include, but are not limited to:*
  - *Solicitation of faculty, students', and graduates' views on the teaching, learning and achievement opportunities provided by the curriculum.*
  - *Individual course evaluations.*
  - *Review and assessment of the focus and pedagogy of the program.*
  - *Institutional self-assessment, as determined by the institution.*

The program must also demonstrate that results of self-assessments are regularly used to advise and encourage changes and adjustments to promote student success as well as the continued maturation and development of the program.

[X] The program's processes meet the standards as set by the NAAB.

Visit Three Team Assessment: The program has illustrated its comprehensive self-assessment procedures in the APR and also in the policy review folders that were provided in the team room.

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 Three Team Assessment: Evidence for this condition is found in the APR. The large number and the diverse academic profiles of the full-time faculty covering a range of curriculum and also a select number of qualified part-time faculty supporting design oriented courses in the curriculum of the program was verified on-site. The program has an appropriate number of administrators and staff to support the program.

The program has managed to maintain the studio ratios of one faculty member per 11-16 students (up to 19 students in the first year). This is an improvement over levels recorded at the last visit.

YTU DoA demonstrates the opportunities for all faculty and staff to pursue professional development that contribute to program improvement. Evidence for this is found in the APR and was also verified in the supplementary documents and in the meeting with faculty.

The program demonstrates objective and transparent criteria for determining rank, reappointment, tenure, promotion and allocation in the APR and supplementary folders in the Team Room. These criteria are based on the conditions in Higher Education Article 2547 and related items of Teaching Staff Promotion and Allocation Regulation and YTU Rectorate Directive on Guidelines for Academic Promotion and Allocation Criteria, AYDEK. The program has also policies to document the hiring of international faculty.

- *Students:*
  - *A substantially equivalent program must document its student admissions policies and procedures. This documentation may include but is not limited to application forms and instructions, admissions requirements, admissions decisions procedures, financial aid and scholarships procedures, and student diversity initiatives. These procedures should include first-time, first-year students as well as transfers within and outside of the university.*

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[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.

o *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 Three Team Assessment: The APR fully outlines admissions criteria for both incoming first year students and transfer students. Information for prospective students is also found online through links provided in the APR. Procedures and requirements for students applying for a double major program are also outlined in the APR.

Evidence found in the APR and in meetings with faculty and students showcase the program's commitment to student achievement inside and outside the classroom. The range of opportunities offered provide a rich and stimulating environment for learning and consist of internship experience, field trips, guest lecturers, workshops, competitions, research, and events in Istanbul and surrounding cities to name a few. Professors lend their resources to students in the form of books and information as well as professional connections and opportunities. There are also many clubs and organizations within YTU that students can be a part with three being official architecture clubs. The school is also part of the ERASMUS exchange program which allows students to travel internationally to other universities. During the visit, students expressed the interest in seeing additional study abroad and international travel options in the program.

From the APR: *"The community organizes various panels, forums and interviews during the education period. Community events also aim to create an atmosphere in which participants can freely express and discuss their ideas. It is also aimed to increase the interaction of school corridors with art and architecture by organizing various exhibitions and keeping students' interest alive. The intended audience are students who want to improve themselves and are not satisfied with the formal education alone."*

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 Three Team Assessment: The APR contains a detailed explanation and flowchart of the administrative structure of the program, which the team was able to clarify through various formal and informal meetings during the visit.

YTU is a state university and the State Commission on Higher Learning determines degree nomenclature and much of the educational framework as well as length of time of the degree programs. The chief administrative officer of the university, the Rector, is equivalent to the President or Chancellor, Vice-Rectors (3) act as Provosts overseeing various administrative functions of the university.

The Faculty of Architecture, the equivalent of a College or School in the US, is led by a Dean and two Vice-Deans who oversee the three Departments; Architecture, Urban and Regional Planning, and the Department of Restoration of Cultural Property.

A Faculty Board consisting of the Dean, Sub-Department Chairs and representatives of the professors and research assistant is charged with discussion and approval of various elements, including the recommendations of the Department Board and review and approval of promotion and tenure recommendations.

The Department of Architecture, one of the three housed within the Faculty, is led by the department head who is elected by the faculty every three years. In addition to the head of the department, these other administrative structures exist:

- The department is led by a department head, elected by the faculty, every three years. Two vice-heads are appointed by the head to assist in carrying out their duties.

- Four sub-department chairs act in a similar role to area coordinators and oversee each of the four areas; Building Design & Theory, Building Science & Technology, History of Architecture, and Restoration.

- A department board composed of representatives from each faculty ranking oversees, modifies, and develops the curriculum. It meets regularly with the faculty board, above.

- A variety of other faculty committees (commissions) are in place to carry out administrative tasks such as; evaluation of applications, internship applications, transfer applications and various student and faculty exchange programs.

- **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 Three Team Assessment: There are various opportunities for engagement in governance for faculty, staff and students in the various organisms discussed above. The formal structure and process of the full administrative and governance structure, a bit more complicated than the above, are detailed within the APR, in documents provided in the Team Room and also available online.

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 inadequate for the program.

Visit Three Team Assessment: While the school is making continuous progress to remedy the lack of dedicated studio space, this requirement remains "technically" unmet and this visiting team, feels it necessary to mark the requirement as not met. At the time of our visit, the program is providing dedicated studio space for its upper three studios and continues work with the University Rectorate and Dean's office

to identify additional space which will allow an increase in dedicated studio space. Additional information on progress is provided under this item in #3, above, Progress Since the Last Visit.

The program provides additional learning opportunities in the Building Physics Lab and the Building Products Center, where students can gain hands-on learning experience. During the visit, the students commented on how they use the spaces often to better understand how different elements such as lighting play a role in design and how building details come together. Students can use these spaces as resources for courses and their own research.

The program has a robust computer lab, which has been significantly upgraded since the last visit, providing 50 workstations, 3 plotters, and various 3-D printers. They have also created a virtual reality lab, which is operating for graduate students and will expand to be available for undergraduates as well.

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 Three Team Assessment: The information provided in the APR demonstrates the financial stability of the program to support student learning and achievement. As a state university, YTU receives its funding from the government. YTU also receives funding from international and national research projects, and a revolving fund for consultancy projects. The DoA receives an allocation of this from the faculty budget. This is the way the university allocates budgets from the rector (president) to all departments. The DoA's expenditure also includes travel and supplies and is managed by the dean and under the supervision of the department head.

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 Three Team Assessment: The team's tour of the main and branch libraries provided evidence of convenient access to literature, information, visual and digital resources that support professional architecture education. The library gives orientations at the beginning of each academic year. There is an online library catalog and several online databases that students and faculty can access. Students also have access to writing resources from the Mendeley program online and the library sometimes brings in a publishing expert to give a lecture on how to use it and writing tips. All thesis work from the university is digitized and available for anyone to access. Both students and faculty can request books and faculty can reserve books for their courses.

PART I: SECTION 3—REPORTS

I.3.1 Statistical Reports. Programs are required to provide statistical data in support of activities and policies that support social equity in the professional degree and program as well as other data points that demonstrate student success and faculty development.

- *Program student characteristics.*
  - *Number of students enrolled in the substantially equivalent degree program(s).*
  - *Qualifications of students admitted in the fiscal year prior to the upcoming visit compared to those admitted in the fiscal year prior to the last visit.*
  - *Time to graduation.*
    - *Percentage of matriculating students who complete the substantially equivalent degree program within the normal time to completion for each academic year since the previous visit.*
    - *Percentage who complete the substantially equivalent degree program within 150% of the normal time to completion for each academic year since the previous visit.*

- *Program faculty characteristics*
  - Number of faculty by rank (e.g., assistant professor, associate professor)
  - Number of full-time faculty and part-time faculty
  - Number of faculty promoted each year since the last visit
  - Number of faculty maintaining licenses in the country of the program each year since the last visit, and where they are licensed

[X] Statistical reports were provided and provide the appropriate information.

Visit Three Team Assessment: The APR contained the appropriate statistical reports for the program. Highlights include:
- The program continues to attract freshmen with examination scores in the top 1 percentile of the country's entrance examination scores.
- The program's student population is majority female (83%), and 73% of the faculty are females.
- The program favors international diversity and seeks students from various nations and through the use of international university exchange programs, such as Farabi, Mevlana and Erasmus + as well as by students from other Turkish countries.

I.3.2 Faculty Credentials: The program must demonstrate that the instructional faculty are adequately prepared to provide an architecture education within the mission, history, and context of the institution.

In addition, the program must provide evidence through a faculty exhibit[3] that the faculty, taken as a whole, reflects the range of knowledge and experience necessary to promote student achievement as described in Part Two. This exhibit should include highlights of faculty professional development and achievement since the last substantial equivalency visit.

[X] Faculty credentials were provided and demonstrate the range of knowledge and experience necessary to promote student achievement.

Visit Three Team Assessment: Faculty credentials were provided within an Appendix to the APR and an exhibit of their work provided just outside the team room. All members of the Faculty are licensed architects, in large part as a result of the regulatory model used in Turkey, with an overwhelming majority having PhDs.

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[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.

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 met the requirements of Appendix 4

Visit Three Team Assessment: Evidence is found within a binder of documents found in the team room including hard copies of the listed requirements in Appendix 4.

PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM

PART TWO (II): SECTION 1—STUDENT PERFORMANCE—EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA

The substantially equivalent degree program must demonstrate that each graduate possesses the knowledge and skills defined by the Student Performance Criteria set out below. The knowledge and skills are the minimum for meeting the demands of an internship leading to registration for practice.

The school must provide evidence that its graduates have satisfied each criterion through required coursework. If credits are granted for courses taken at other institutions or online, evidence must be provided that the courses are comparable to those offered in the substantially equivalent degree program.

The criteria encompass two levels of accomplishment[4]:

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

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

The NAAB establishes student performance criteria to help substantially equivalent degree programs prepare students for the profession while encouraging educational practices suited to the individual degree program. In addition to assessing whether student performance meets the professional criteria, the visiting team will assess performance in relation to the school's stated curricular goals and content. While the NAAB stipulates the student performance criteria that must be met, it specifies neither the educational format nor the form of student work that may serve as evidence of having met these criteria. Programs are encouraged to develop unique learning and teaching strategies, methods, and materials to satisfy these criteria. The NAAB encourages innovative methods for satisfying the criteria, provided the school has a formal evaluation process for assessing student achievement of these criteria and documenting the results.

For the purpose of substantial equivalency, graduating students must demonstrate understanding or ability as defined below in the Student Performance Criteria (SPC):

II.1.1 Student Performance Criteria: The SPC are organized into realms to more easily understand the relationships between individual criteria.

Realm A: Critical Thinking and Representation:
Architects must have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. This ability includes facility with the wider range of media used to think about architecture including writing, investigative skills, speaking, drawing and model making. Students' learning aspirations include:

- Being broadly educated.
- Valuing lifelong inquisitiveness.
- Communicating graphically in a range of media.
- Recognizing the assessment of evidence.
- Comprehending people, place, and context.

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[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).

- Recognizing the disparate needs of client, community, and society.

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

[X] Met

Visit Three Team Assessment: Evidence of student achievement was found in student work for MIM 4000 - Graduation Thesis.

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 Three Team Assessment: Evidence of student achievement was found in student work form MIM 4012 - Architecture Design 7.

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 Three Team Assessment: Evidence of student achievement was primarily found in student work for all Architectural Design courses, MIM 1012, 2011, 2012, 3011, 3012, 4011, 4012. Evidence was partially found in student work for MIM 1011 - Introduction to Architectural Design, MIM 1031 - Architectural Presentation Techniques, MIM 1041 - Basic Design, MIM 2081 - Computer-Aided Design, and MIM 2082 - Introductory Computer Sciences.

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] Met

Visit Three Team Assessment: Evidence of student achievement for all requirements listed in this criterion, except writing outline specifications, can be found in MIM 1052 - Constructional Elements of Building 1, MIM 2101 - Constructional Elements of Building 2, and MIM 4041 - Installation Knowledge. The team recognizes that the writing of outline specifications is not a local practice in Turkey. Students conduct and compile materials research as part of MIM 2011 - Architectural Design 2 and in other coursework with the Building Products Center at a commendable level. Therefore, this team believes that students would have no difficulty in the task of writing outline specifications if in another location.

The team notes that this item would have been met with distinction had it not been for the missing item of outline specifications.

A.5. **Investigative Skills: *Ability to* gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.**

[X] Met

Visit Three Team Assessment: Evidence of student achievement can be found in MIM 4000 - Graduation Thesis, and affiliated course, MIM 4012 - Architectural Design 7.

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

[X] Met

Visit Three Team Assessment: Evidence of student achievement can be found in student projects for MIM 4011 - Architectural Design 6.

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 Three Team Assessment: Evidence of student achievement at the prescribed level was found in student work for MIM 3011 – Architectural Design 4. This criterion is introduced at the level of understanding as evidenced by course student work in MIM 1012 - Architectural Design 1.

A.8. **Ordering Systems Skills:** *Understanding* of the fundamentals of both natural and formal ordering systems and the capacity of each to inform Three- and three-dimensional design.

[X] Met

Visit Three Team Assessment: Evidence of student achievement was found in MIM 1041 - Basic Design.

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 Three Team Assessment: Evidence of student achievement was found in a combination of four courses: MIM 2071 - History of Architecture 1, MIM 2042 - History of Architecture 2, MIM 3051 - History of Architecture 3 and MIM 3062 - History of Architecture 4.

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 Three Team Assessment: Evidence of student achievement was found in the combined student work for MIM 2071 - History of Architecture 1, MIM 2042 - History of Architecture 2, MIM 3051 - History of Architecture 3, and MIM 3062 - History of Architecture 4.

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 Three Team Assessment: Evidence of this SPC is found beginning in MIM 2011 Architectural Design 2, where indicated on the Matrix provided by the program, however it is inconsistent at this level. Better, more consistent and conclusive evidence was found in the later sequence Design sequences, particularly in MIM 4012 Architectural Design 7.

Realm A. General Team Commentary: The 2019 visiting team found that the program meets all Student Performance Criteria in this realm. The work provided for A.4 Technical Documentation was exceptional, and the criterion would have been Met with Distinction if the work covered outline specifications.

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 Three Team Assessment: Evidence of student achievement was found in the combined student work for MIM 2011 - Architectural Design 2, MIM 3012 - Architectural Design 5, and MIM 4012 - Architectural Design 7.

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 Three Team Assessment: This criterion remains not met. While the projects in MIM 2012 - Architectural Design 3 require students to do this, not all the projects provided in the team room showed evidence of student achievement at the ability level. In MIM 1052 - Building Theory and Design 1, students develop an understanding of universal design, but work provided does not show evidence of ability.

B.3.   **Sustainability:** *Ability* **to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.**

[X] Met

Visit Three Team Assessment: Evidence of student achievement was found in the combined student work for MIM 3011 - Architectural Design 4.

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

[X] Met

Visit Three Team Assessment: Evidence of student achievement can be found in student projects from MIM 3012 - Architectural Design 5.

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

[X] Not Met

Visit Three Team Assessment: This criterion remains not met. Evidence reviewed from courses MIM 3012 - Architectural Design 5 and MIM 4012 - Architectural Design 7 inconsistently shows an ability to apply basic principles. The team acknowledges that building codes are different than those in jurisdictions across the U.S. However, not all projects show a basic understanding (or application) of multiple means of egress, path of travel, and dead-end corridors.

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 Three Team Assessment: This item remains not met. Evidence provided from MIM 4012 - Architectural Design 7, does not consistently show evidence of student capacity to integrate all the SPC

listed above. Overall, student projects do not show adequate integration of accessibility, life safety, sustainability, environmental systems, and structural systems.

B.7 **Financial Considerations:** *Understanding* **of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.**

[X] Met

Visit Three Team Assessment: Evidence of understanding of this criterion was found in the classwork of MIM 4031 Construction Management and Economics.

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 Three Team Assessment: Evidence of student understanding was found in a combination of the student work for MIM 3031 - Building Physics 1, MIM 3042 - Building Physics 2, and MIM 4041 - Installation Knowledge.

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 Three Team Assessment: Evidence of Understanding of basic principles of structural behavior is found in the coursework of MIM 1042 Statics and Strength of Materials and in MIM 2031 Structural Analysis in Architecture and then further developed in the coursework of MIM 2091 and MIM 3041; Structural System Design 1 & 2, respectively.

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 Three Team Assessment: Evidence of student understanding was found in a combination of the student work for MIM 2101 - Construction Elements of Building 2, MIM 3031 - Building Physics 1, and MIM 3042 - Building Physics 2.

B.11. **Building Service Systems Integration:** *Understanding* **of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems**

[X] Met

Visit Three Team Assessment: This criterion is met with distinction. Evidence of student achievement is found in MIM 4014 - Installation Knowledge. In this course, students are required to do plumbing stack

drawings and electrical wiring plan diagrams. Basic principles rise above understanding level to an ability to incorporate into simple designs.

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 Three Team Assessment: Evidence of understanding of this material was found in the coursework of MIM 1032 Building Materials, MIM 1052 Constructional Elements of Building 1 and MIM 2101 Constructional Elements of Building 2.

Realm B. General Team Commentary: The program is a highly technical one that balances the creative aspects of architecture with technical knowledge. As a result, performance in this realm is of high quality particularly their understanding of the concepts, although certain (more U.S.-based) topics were still in need of greater consistency. That said, faculty and administration are both aware of these needs, and the team found a continuing effort toward improvement.

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 Three Team Assessment: This item remains not met. Evidence of student ability to work in collaboration was found in MIM 3032 - Analysis of Historical Buildings. Evidence of student ability to work in collaboration in multidisciplinary teams was not found. The program acknowledged that this is known to be deficiency since an evaluation of the curriculum last year and is working to implement it into required coursework. This is part of Goal 2 in the APR Long Range Planning Section I.1.4. Currently the program has incorporated multidisciplinary collaboration into its Social Electives where they collaborate with other disciplines like Naval Architecture and Urban Planning.

C.2. **Human Behavior:** *Understanding* **of the relationship between human behavior, the natural environment and the design of the built environment.**

[X] Met

Visit Three Team Assessment: Evidence of student understanding was found in user profile and requirements sections of the Thesis Documents in MIM 4000 - Graduation Thesis and projects in MIM 1011 - Introduction to Architectural Design.

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 Three Team Assessment: The subject was partially introduced in MIM 3052 - Process and Progress in Modern Construction Industry. Evidence of student understanding was found in a combination of the student documentation and student output questionnaire results provided in the APR Appendix for MIM 2001 - Internship 1.

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

[X] Not Met

Visit Three Team Assessment: This item remains not met. Evidence of project delivery methods were found in MIM 4031 - Construction Management and Economics. However, competing for commissions and selecting consultants and assembling teams were missing from the work in the team room. The team notes that while this has now been incorporated in the current (spring 2019) offering of MIM 3052 - Process and Progress in Modern Construction Industry, the course is still in progress and student work has not been completed at this time.

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] Met

Visit Three Team Assessment: The subject was well introduced in MIM 3052 - Process and Progress in Modern Construction Industry. Evidence of student understanding was found in a combination of the student documentation and student output questionnaire results provided in the APR Appendix for MIM 2001 - Internship 1.

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 Three Team Assessment: Evidence of understanding of this material was found in the coursework of MIM 3052 - Process and Progress in Modern Construction Industry.

C.7. **Legal Responsibilities:** *Understanding* **of the architect's responsibility to the public and the client as determined by local or national ordinances or laws regarding registration or licensure, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and preservation and accessibility laws.**

[X] Not Met

Visit Three Team Assessment: Evidence of student achievement can be found in SBP 3991 - Urban Planning and Urban Development Law for registration and licensure, building codes and regulations, zoning and subdivision ordinances, and environmental regulation. Evidence of preservation laws was found in MIM 4051 - Conservation and Restoration. Accessibility laws are covered in MIM 3012-Architectural Design 3. Evidence of professional service contracts was missing from the work in the team room. The team notes that while this has now been incorporated in the current (spring 2019) offering of MIM 3052 - Process and Progress in Modern Construction Industry, the course is still in progress and student work has not been completed at this time.

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 Three Team Assessment: Evidence of student achievement can be found in MIM 4031 - Construction Management and Economics.

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 Three Team Assessment: Evidence of student achievement was found in student work for MIM 4051 Conservation and Restoration.

Realm C. General Team Commentary: Students are provided a generally strong curriculum related to construction and practice management issues but, as in Realm B, work continues to modify the curriculum to cover certain aspects, detailed above, in a more comprehensive manner. Some of these courses are in their first semester, in their modified form, and although student work is not yet available, the team was able to review their syllabi and is confident that further progress will be evident very shortly.

PART THREE (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 Three Team Assessment: The APR provided a website that lists the authorized in Turkey, of which YTU is one (https://www.yok.gov.tr/universiteler/universitelerimiz). The team also found the evidence of accreditation certificate of the program by the Architectural Accrediting Board (AAB /MiAK) in the DoA website (http://www.mim.yildiz.edu.tr/images/files/MIAK.jpg)

II.2.2 Professional Degrees and Curriculum: *For substantial equivalency, the NAAB requires degree programs in architecture to demonstrate that the program is comparable in all significant aspects to a program offered by a U.S. institution. This includes a curricular requirement that substantially equivalent degree programs must include general studies, professional studies, and electives.*

Curricular requirements are defined as follows:

- *General Studies. A professional degree program must include general studies in the arts, humanities, and sciences, either as an admission requirement or as part of the curriculum. It must ensure that students have the prerequisite general studies to undertake professional studies. The curriculum leading to the architecture degree must include a course of study comparable to 1.5 years of study or 30% of the total number of credits for an undergraduate degree. These courses must be outside architectural studies either as general studies or as electives with content other than architecture.*

  This requirement must be met at the university or tertiary school level. Post-secondary education cannot be used to meet this requirement.

- *Professional Studies. The core of a professional degree program consists of the required courses that satisfy the NAAB Student Performance Criteria (SPC). The professional degree program has the discretion to require additional courses including electives to address its mission or institutional context.*

- *Electives. A professional degree program must allow students to pursue their special interests. The curriculum must be flexible enough to allow students to complete minors or develop areas of concentration, inside or outside the program.*

[X] Met

Visit Three Team Assessment: Comprehensive information is provided in the APR, the total credit hours for the program are 168, as follows:
- Professional Studies and electives related to architecture, credit hours = 135
- Hours outside of architecture, inclusive of general studies and "social" electives = 33 (24% of total)

The program's total of general studies courses is now within the 30% requirement while still providing sufficient flexibility for students to access an array of various topics which may be of interest to them.

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 Three Team Assessment: Design, review, development and operation of the degree program's curricular content is defined by the university senate's regulations titled "YTU Regulation of Undergraduate Regulation" which is available online. As the university's highest authority for curricular content, it names the Dean of the Faculty as the person responsible for the review and development of such content.

Based on information provided within the APR, the department relies on the "Departmental Board" to develop the curricular review and development practices. This board made up of the Department Head, two Vice-Heads, four Sub-department Chairs and two representative members of the Research Assistants and Students, elected every three years. This board meets each semester with students and faculty members, separately to receive input. The results of their work is then submitted to the Dean for review and forwarded to the YTU Senate for final approval.

PART THREE (II): SECTION 3—EVALUATION OF PREPARATORY/PREPROFESSIONAL EDUCATION
Because of the expectation that all graduates meet the SPC (see Part Two, Section 1, above), the program must demonstrate that it is thorough in the evaluation of the preparatory education of individuals admitted to the NAAB substantially equivalent degree program.

In the event a program relies on the preparatory educational experience to ensure that students have met certain SPC, the program must demonstrate it has established standards for ensuring these SPC are met and for determining whether any gaps exist. Likewise, the program must demonstrate it has determined how any gaps will be addressed during each student's progress through the substantially equivalent degree program. This assessment should be documented in a student's admission and advising files.

[X] Met

Visit Three Team Assessment: The Department of Architecture has a robust and rigorous process for the evaluation of preparatory and pre-professional education that relies on testing, formal application which includes prior curriculum, course descriptions and transcripts. Applications are evaluated by one of three "commissions," for lateral, vertical or internal transfers. Determinations of these commissions are then submitted to the Faculty Executive Board for approval. A maximum of 50% of the total required credits for completion of the curriculum may be completed by evaluation and placement. The entire process was explained, in detail, within the APR. Additional material for the University's standardized evaluation and procedures was available from a link included in the APR.

PART TWO (II): SECTION 4—PUBLIC INFORMATION

II.4.1 Statement on Substantially Equivalent Degrees
In order to promote an understanding of the substantially equivalent professional degree by prospective students, parents, and the public, all schools offering a substantially equivalent degree program or any candidacy program must include in catalogs and promotional media the exact language found in the NAAB Conditions for Substantial Equivalency*, Appendix 6.*

[X] Met

Visit Three Team Assessment: The program's webpage contains the required statement together with a descriptive statement regarding the process for obtaining Substantial Equivalency that is specific to its process, and up to date on their progress through it. Both can be found at: http://www.mim.yildiz.edu.tr/en/mim/1/Departmental-Grid/224.

II.4.2 Access to NAAB Conditions and Procedures
In order to assist parents, students, and others as they seek to develop an understanding of the body of knowledge and skills that constitute a professional education in architecture, the school must make the following documents available to all students, parents, and faculty:
*   The 2012 NAAB Conditions for Substantial Equivalency*
*   The NAAB Procedures for Substantial Equivalency* (edition currently in effect)

[X] Met

Visit Three Team Assessment: Access to NAAB Conditions and Procedures are found on the program's website from links located at: http://www.mim.yildiz.edu.tr/en/mim/1/Departmental-Grid/224 links are clearly highlighted and located directly below the statement on Substantial Equivalency.

II.4.3 Access to Career Development Information
In order to assist students, parents, and others as they seek to develop an understanding of the larger context for architecture education and the career pathways available to graduates of substantially equivalent degree programs, the program must make appropriate resources related to a career in architecture available to all students, parents, staff, and faculty.

[X] Met

Visit Three Team Assessment: A wide variety of Career Information is provided through various links (8) indicated in the APR. These links are located, under a clear banner, on the left side of the program's main page at: http://www.mim.yildiz.edu.tr/en/mim/1/Departmental-Grid/224

II.4.4 Public Access to APRs and VTRs

In order to promote transparency in the process of substantial equivalency in architecture education, the program is required to make the following documents available to the public:
The final decision letter from the NAAB
The most recent APR
The final edition of the most recent Visiting Team Report, including attachments and addenda

These documents must be housed together and accessible to all. Programs are encouraged to make these documents available electronically from their web sites.

[X] Met

Visit Three Team Assessment: The required APRs and VTRs from the prior visit are available on the program's landing webpage, on the right-side column which contains direct links to the relevant document. These links are included in the APR.

III.   Appendices

Appendix 1. Program Information

A.   History and Mission of the Institution and the Program

APR, page 6

B.   Long-Range Planning

APR, page 34

C.   Self-Assessment

APR, page 43

Appendix 2. Conditions Met with Distinction

    B.11.   Building Service Systems Integration – comments are provided above, within the appropriate SPC description.

Appendix 3. Visiting Team

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Team observer/local facilitator
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Eastern Mediterranean University
Famagusta, North Cyprus (via Mersin 10 Turkey)

IV. Report Signatures

Respectfully Submitted,
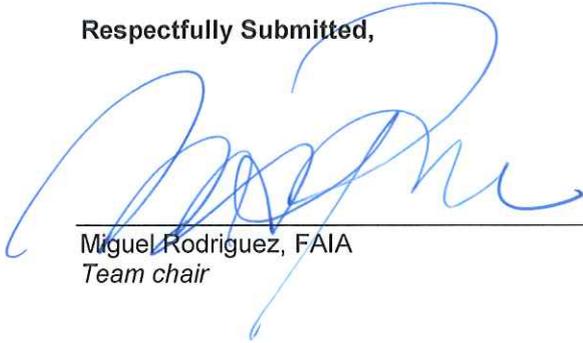
Miguel Rodriguez, FAIA
Team chair

Amy Perenchio, AIA
Team member

Elizabeth Widaski
Team member

Ozgur Dıncyurek
Team member-Local Facilitator

Yildiz Technical University

Visit Three for Substantial Equivalency, 2019

Response to VTR

Dear NAAB Board Members,

As we celebrate the 100th year of our university and 75th year of the Architectural School, we are proud to say that, it is in our DNA to improve the education service in our department. In addition, the NAAB accreditation process provided us an opportunity to evaluate and make objective decisions in our education system. We thank the team to observe and stress our effort fairly and clearly in their report. Yet, we are aware that it is a continuous process which we aim to thrive the success of our students, make an positive impact in our profession and continue on being a role model to other architectural schools in our country.

We would like to thank the team members for writing out clearly our progress in achieving the missing/not met conditions and stressing our efforts.

We have some minor corrections to make:

p.1 Almula Köksal Işıkkaya is Graduate Programs coordinator (title to be corrected)
p.7 C7 Legal Responsibilities is missing.
p.15 fdepartment (misspellt)
p.20 Technical Specifications- instead of MIM2012 Architectural Design 3, it should be MIM2011 Architectural Design 2.

With our regards,

YTU Architecture Department