

**Istanbul Technical University  
Department of Architecture**

## **Visiting Team Report**

NAAB Visit for Renewal of Substantial Equivalency

**Bachelor of Architecture (4 years) + Master of Architecture (2 years)**

The National Architectural Accrediting Board  
November 16–19, 2014

Date of last visit: April 2008

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

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

## Contents

Section		Page
I.	Summary of Team Findings	
1.	Team Comments and Visit Summary	1
2.	Conditions Not Met	2
3.	Causes of Concern	2
II.	Compliance with the Conditions for Substantial Equivalency	
1.	Institutional Support and Commitment to Continuous Improvement	3
2.	Educational Outcomes and Curriculum	14
III.	Appendices	
1.	Program Information— <i>Architecture Program Report</i> , Part I, Section 1.1	28
2.	Conditions Met with Distinction	29
3.	Visiting Team	30
IV.	Report Signatures	31

---

**I. Summary of Team Findings**

**1. Team Comments and Visit Summary**

The team extends its appreciation for the thorough preparation and gracious hospitality that greeted us at every turn during our visit. The impressive building was a joy to explore and call our home base. The Team Room was well-organized and all requests for additional information were answered promptly. Meetings with students, faculty, and administrators were enjoyable and insightful. The team especially recognizes Prof. Alaattin Kanoglu and Assoc. Prof. Begum Sertyesilisik for their attention and thoughtfulness.

One of our concerns prior to arriving was if we would be able to see beyond the obvious cultural differences to truly discover the uniqueness of the ITU program. We were happy to learn that it is very much like the U.S. programs we know so well, yet obviously rooted in the specific design, preservation, and professional practice issues that challenge contemporary Turkish architects. It is quite a remarkable accomplishment to bring in hundreds of new students every year and, within a short time, teach them the art and craft of architecture to an extent that enables them to immediately assume a place in the profession.

The program has many strengths. Studio culture is remarkably vibrant and collaborative. Here, students engage in peer-to-peer learning, both with classmates of the same level and in "inter-generational" exchanges between class levels. Students and faculty work together regularly one-on-one, in small groups, and in larger class discussions. The studios we observed were lively, pleasantly crowded, and overflowing with creativity; they made us want to roll up our sleeves and join in the fun.

Another strength is the program's remarkable gender diversity. The student body is an extraordinary 72% women. An enviable percentage of the faculty are women (58%). Several reasons have been theorized by people in the department for the faculty statistics, including that academia better supports the work/life balance that women seek and that traditional architecture practice and construction industry jobs are male-dominated and therefore more difficult for women to navigate and succeed. Whatever the reasons, the team couldn't help but wonder if ITU should take the lead in recognizing and discussing the implication of these statistics. Does an architecture education taught by women to women happen in the same way as the traditional models to which we are all accustomed? How might such a setting better prepare women for their future roles in the profession? ITU may be in a unique position to study these questions, and the answers may have a profound impact on the profession as a whole.

Student quality is very high, with ITU attracting the top 1% of scores from the national entrance exam. This bright and highly motivated student body means that faculty can teach to a higher academic level early in the curriculum. The students are ambitious and anxious to take their place in the profession and in the world.

Faculty collegiality is solid, and collaboration is assumed. The large faculty size provides for many subject matter experts, and the new department organization of "working groups" is expected to take full advantage of both this expertise and goodwill.

The active program administrators at all levels are admirably ambitious, working together to transform the curriculum and program organization in order to maximize the program's strengths and, at the same time, deflect competition from emerging private universities.

As a whole, the department seems pleased with its direction and sees few impediments to its future. The ITU Department of Architecture is a healthy, vibrant, world-class program that is prepared for and can expect continued success.

## **2. Conditions Not Met**

II.1.B2: Accessibility

II.1.A10: Cultural Diversity

## **3. Causes of Concern**

A. Lack of faculty educational diversity

Virtually all faculty have at least one degree from ITU and very many have all three of their degrees (BS, MS, and PhD) from ITU. Ostensibly, this is because ITU is proud of its graduates and truly believes that they make the best faculty. Still, having the majority of faculty educated in the same manner may lead to a lack of diversity in teaching methods and views. New ideas and processes could be inadvertently blocked out. This could jeopardize the students' opportunities for broader and more challenging learning.

B. New department organization

The department has recently reorganized itself to create twelve "working groups" in an effort to take advantage of faculty expertise and to formally create opportunities for interdisciplinary teaching and research. This is an exciting time and the new strategy seems to have buy-in from both administrators and faculty. The reorganization is in its infancy and may have unintended consequences if not appropriately monitored and benchmarked. There may also be opportunities for interdisciplinary activities outside the department that have not yet been investigated.

C. Complacency

The department is thriving and is justifiably proud of its success. One frequent consequence of success is complacency. It will be a challenge for the program to remain vigilant in its efforts to remain at the top. It appears that the administration is already motivated by the growth in rival private universities. Also, the program's strong administration and faculty-based self-assessment procedures appear well-positioned to address any complacency issues, perhaps through some analysis of peer institutions or global design education trends.

**I. 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**

***1.1.1 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.*

**The program has fulfilled this requirement for narrative and evidence**

**The program has not fulfilled this requirement for narrative or evidence**

**2014 Visiting Team Assessment:** The Istanbul Technical University was founded on 1773; the Faculty of Architecture is one of the oldest departments within the university, having graduated its first graduates in 1931. In 2008 the program sought and obtained NAAB Substantial Equivalency. The dean stated unequivocally to the team that ITU would like to pursue full international accreditation when that becomes available.

The department’s stated mission is “to equip the students with environmental awareness and sensibility to be able to approach architectural issues with a critical thinking and historical consciousness.” The department’s vision “is to give students the opportunity to enhance their intellectual capacity and develop their architectural identity in an internationally credible and high-quality educational atmosphere.”

In response to these goals, the department has initiated staffing and curricular changes over the past several years, as well as self-assessment processes, that led to a redefinition of specialty areas and the creation of working groups. These working groups are to develop new strategies and operational tools as the department repositions itself as a global design education leader. Working groups include Morphology; Design and Typology, and Design Technologies and Informatics. Additional groups are assessing Building and Construction Technologies; Building Materials; Building Physics and Environmental Control; Management Sciences in Architectural Design and Construction; and Structural Engineering and Earthquake. These groups are expected to consider their particular areas of expertise in relation to how improvements in a particular area will connect with recommendations concerning other areas.

The team found that ITU staff have undertaken this work thoughtfully, thoroughly, and with an eye toward a globally competitive future for the programs. Interdisciplinary and collaborative work is being strongly stressed, as is interoperability of data management systems, particularly in relation to assessing faculty performance and accreditor-based learning outcomes. ITU appears to be on the forefront of developing new and potentially effective ways of assessing learning outcomes and faculty performance in relation to achieving those outcomes within the context of the school’s mission and vision.

We consider this NAAB Condition to be Met with Distinction.

**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.**

**[ ] The program has not 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.**

**[ ] The program has not demonstrated that it provides a culturally rich environment in which each person is equitably able to learn, teach, and work.**

**2014 Visiting Team Assessment:** The team observed an environment of active and engaged participation and collaboration throughout the program. These observations were corroborated in meetings and conversations with students, faculty, administrators, and alumni, all of whom spoke unequivocally of the open and equitable exchange of ideas, mutual support, and collaborative development of the program as a whole and of the individual students.

**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.<sup>1</sup> 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.

**The program is responsive to this perspective.**

**The program is not responsive to this perspective.**

**2014 Visiting Team Assessment:** The ITU architecture program has responded to the surrounding university academic community by seeking to lead in the development of new faculty assessment and learning outcome measurements in ways that may enrich the administrative work being done by other academic units within the university. The “Mimadek” management infrastructure project being partly funded by the university is projected to be of value to the entire university as it seeks to assess and improve departmental performances. The architecture faculty is involved with a number of research projects and special research centers that are beneficial to the university by providing graduate scholarships, seminars, lectures, symposia, and life-long learning opportunities across the university. Faculty also provides consultancies on a wide range of construction-related activities.

- 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.

**The program is responsive to this perspective.**

**The program is not responsive to this perspective.**

**2014 Visiting Team Assessment:** The team observed a remarkable degree of confidence, optimism, collaborative spirit, and preparedness among the student body. As with prior visits, there was a reticence among students to refer to themselves as leaders, but their descriptions of the peer-to-peer learning environment, the high standards to which they hold themselves, and the initiative which they are enabled to pursue, all belie qualities which will manifest as leadership in the profession.

- 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.

**The program is responsive to this perspective.**

---

<sup>1</sup> See Boyer, Ernest L. *Scholarship Reconsidered: Priorities of the Professoriate*. Carnegie Foundation for the Advancement of Teaching. 1990.

**The program is not responsive to this perspective.**

**2014 Visiting Team Assessment:** Based on information in the APR and interviews, it was confirmed that upon graduation from a government-accredited four-year architecture program in Turkey, students are eligible for immediate licensure. The “registration” process is overseen by the Chamber of Architects of Turkey and is relatively simple, requiring only the submission of personal data and fees. While students complete a required internship as part of their course work, no additional internship, experience or examinations are required after graduation. Once registered, individuals may immediately begin to practice architecture in the same capacity as all other registered architects in the country. However, although licensed, recent graduates understand their limitations and lack of experience, and they do not expect to practice independently immediately upon graduation. Students report feeling very well prepared to assume their roles in the profession.

- 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.

**The program is responsive to this perspective.**

**The program is not responsive to this perspective.**

**2014 Visiting Team Assessment:** ITU students are, without question, prepared to practice in their local environment as well as in a global society. The program course load is very comprehensive, covering all matters of materials, construction, and structure; building environmental controls; architectural history and building preservation; issues confronting contemporary urban sites; and pragmatic concerns such as construction schedules and budgets. These knowledge areas are presented not simply as something the students need to learn in school, but as essential knowledge to their future professional practice. The MIM 492 Graduation Project is an especially clear bridge between school and professional practice. As part of their course work, students complete a required internship, which places them in a variety of traditional practice, construction, and other design-related offices, through which they gain insight into the profession. The Erasmus student exchange program provides important connections to other European countries. The students are demonstrably excited about joining the profession and confident in their ability to contribute to it.

- 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.

**The program is responsive to this perspective.**

**The program is not responsive to this perspective.**

**2014 Visiting Team Assessment:** Through the interviews with staff and alumni and extensive reviews of exhibits and course information, the team found that students are involved in various outreach efforts as part of their course work. Utilizing the fertile assets of Istanbul and the surrounding region as a laboratory, significant restoration, archeological and urban planning projects are routinely pursued benefitting the community directly. Likewise, reality-based new



construction projects are teaching students leadership, consensus building, and economic, political, and ethical considerations that are necessary to the successful execution of projects.

***1.1.4 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.**

**[ ] The program's processes do not meet the standards as set by the NAAB.**

**2014 Visiting Team Assessment:** Within the past year, program leadership changes have been accompanied by an invigorated long-range planning process in parallel with the university's planning efforts. There is a strong commitment to learning in English, enhancing curiosity, learning to learn, having strong research skills, developing meaningful social relationships, and working to meet international standards. Physical renovations have been in constant process, and a newly renovated faculty gathering space was nearing completion during the team's visit. Elevating the college's reputation outside Turkey was a clearly stated goal of the planning processes, with implications for faculty and student recruitment. The discussions among faculty and stakeholders, and the utilization of quantitative and qualitative data sources are wide-ranging and inclusive. A new and comprehensive "management infrastructure project" platform, titled Mimadek, is an operational planning tool for improving departmental performance, from assessing student learning outcomes based on incoming skills assessments, to establishing a unified calendar. There is an institutional expectation that the department will extend its collaborative research and development activities with other departments, professional practitioners, and industry.

The team found this Condition to be Met with Distinction.

***1.1.5 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 1.1.4 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.**

**[ ] The program's processes do not meet the standards as set by the NAAB.**

**2014 Visiting Team Assessment:** In 2014, the ITU architecture program began a rigorous self-assessment process that employs appropriate benchmarking, student and alumni surveys, outreach to industry, accreditation standards comparisons, shared evaluation meetings, and the utilization of grids and matrices to correlate various sources of data. An Advisory Committee of stakeholders, with annual meetings, has been formed and activated to consult to the department. One immediate outcome of the

commitment to self-evaluation has been a restructuring of the foundation-level core studio to achieve greater cross-disciplinary learning. The APR provided useful charts and data on these self-assessment processes, which are comprehensive, and potentially highly effective in assessing and improving faculty performance and student learning outcomes.

We consider this Condition to be Met with Distinction.

**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<sup>2</sup>.*
  - *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.**

**[ ] Human Resources (faculty and staff) are inadequate for the program.**

**2014 Visiting Team Assessment:** The faculty of the Architecture Department is constituted of 29 fully tenured professors, 14 full-time associate professors (13 are tenured), 42 full-time assistant professors, 5 full-time instructors, and 59 full-time research/teaching assistants to teach approximately 1,125 students. Two-thirds of the full professors and assistant professors are women, and half of the associate professors are women, amounting to almost 60% female faculty.

Faculty are recruited and achieve tenure through a complex, hierarchical governmental hiring and jurying process that has, in the past, tended to favor graduates of the ITU in particular and Turkish schools in general. New outreach and hiring procedures at ITU are attempting to bring more international faculty to the campus.

Typical teaching loads amount to about 15 hours per week, leaving faculty time to supervise graduate students, pursue research and offer lectures, take part in competitions, and participate in administrative activities. Faculty would like to increase support staff levels, but these levels appear to be consistent with those at similarly situated institutions.

Faculty human resources are Met with Distinction.

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

**[X] Human Resources (students) are adequate for the program.**

---

<sup>2</sup> 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.

**Human Resources (students) are inadequate for the program.**

**2014 Visiting Team Assessment:** The program observed a high level of commitment from the department to fostering the achievements of their students, both in written artifacts and interviews. While the admissions process lies largely out of the purview of the department, seated instead within a larger governmental body, the program made every effort to share the details of that process, and those facets of support and development for which they are responsible.

**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.*

**Administrative structure is adequate for the program.**

**Administrative structure is inadequate for the program.**

**2014 Visiting Team Assessment:** A government-run Higher Education Council under the direction of a president of the council, who is appointed directly by the president of the Republic, oversees a rector of the university, a senate, and executive board, the dean, vice deans, a faculty board, a faculty executive board, and department chairs. Regular and hierarchical procedures govern administrative hiring processes for all Turkish public higher education, as here.

- **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.*

**Governance opportunities are adequate for the program.**

**Governance opportunities are inadequate for the program.**

**2014 Visiting Team Assessment:** The team has found sufficient evidence that all faculty, staff, and students have the opportunity to participate in the governance of the institution.

**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.*

**Physical resources are adequate for the program.**

**Physical resources are inadequate for the program.**

**2014 Visiting Team Assessment:** The College of Architecture occupies a monumental, multistory concrete and masonry building that was built in the mid-19th century as a military medicine academy. All divisions of the department—architecture, city and regional planning, industrial design, interior design, and landscape architecture—are housed here. The massive structure provides sufficient space for classrooms, lecture halls, faculty offices, support spaces, and informal gathering spaces. The spacious corridors are used for student work exhibits, providing opportunities to showcase work across all departments. An attractive courtyard provides additional work and fellowship space during nice weather.

As large as the facility is, there is not enough studio space for each student to have a full-time, dedicated work space. During studio classes, all students do have access to a work space and from all accounts, the students' learning is not negatively impacted by this situation. The building has been under some state of repair for decades as funding becomes available; at the time of this visit, the floors and windows of the top floor corner light wells were being renovated.

**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.*

**Financial resources are adequate for the program.**

**Financial resources are inadequate for the program.**

**2014 Visiting Team Assessment:** ITU is a Turkish government university where all expenses are covered by the government. Through on-site observations and reviews of written reports, the team confirmed that the university is well-funded, with generous facilities, adequate capital resources, competitive salaries, and adequate support and ancillary resources.

**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.*

**Information resources are adequate for the program.**

**Information resources are inadequate for the program.**

**2014 Visiting Team Assessment:** The college is part of I.T.U.-NET Misafir, the university-wide intranet service and all faculty, staff, and students have access. Wi-Fi is available throughout the facilities for access to most of the school's administrative information, the library's resources, class assignments and communications, peer communications and general routing of drawing and document files. Students also have off-campus access to all resources via the Internet. Combining the collections in the on-site library and the architecture collection in the main library, over 31,000 volumes and 15,000 e-periodicals are accessible. Periodicals are physically separated from the book collection by a substantial distance; however, most "recent" periodicals are available online, diminishing this difficulty of use. Reference librarians are available at each location. Visual resources in the form of digital images and traditional slides are accessible at separate archives for the History of Architecture and the Restoration Unit.

**PART I: SECTION 3—REPORTS**

**1.3.1 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*

**Statistical reports were provided and provide the appropriate information.**

**Statistical reports were not provided.**

**Statistical reports do not provide the appropriate information.**

**2014 Visiting Team Assessment:** The requested statistical information was provided. As Turkey grants an architecture license upon completion of the appropriate degree program, and all faculty are required to hold a PhD, all faculty maintain their license to practice.

**1.3.2 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<sup>3</sup> 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.*

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

**Faculty credentials did not demonstrate the range of knowledge and experience necessary to promote student achievement.**

**Faculty credentials were not provided.**

**2014 Visiting Team Assessment:** Faculty credentials are strong in showing academic publications, research, academic experience, and academic credentials. Practice experience is limited somewhat because Turkish law generally precludes faculty from maintaining professional practices outside their university teaching and research responsibilities.

---

<sup>3</sup> 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**

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

**2014 Visiting Team Assessment:** The program provided extensive written materials on policies, course offerings and syllabi, which were updated as requested by team members.

## **PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM**

### **PART TWO (II): SECTION 1—STUDENT PERFORMANCE—EDUCATIONAL REALMS AND 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<sup>4</sup>:

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

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

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

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

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

#### **Realm A: Critical Thinking and Representation:**

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

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

---

<sup>4</sup> See also *Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. L. W. Anderson and D. R. Krathwold, eds. (New York: Longman, 2001).



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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in the required English sequence ING 101, ING 102, and ING 201; and in MIM 451, Representation and Presentation in Architecture.

**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.***

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 116/e Architectural Design II and Rendering Techniques, MIM 211 Architectural Design III, MIM 212 Architectural Design IV, MIM 351 Architectural Design V, MIM 312 Architectural Design VI, MIM 492 Graduation Project, MTZ 501 Architectural Design I, MTZ 511/e Architectural Design II, MTZ 513 Architectural Design III, and MTZ 517 Architectural Design IV.

**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.***

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 142/e Perspective Drawing, MIM 336 Spatial Analysis and Techniques in Architecture, and MTZ 503/e, Computer Applications in Architecture.

**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.***

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 322/e Conservation of Historic Buildings, MIM 351/e Architectural Design V and MIM 431/e, Construction Project.

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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 211 Architectural Design III, MIM 212 Architectural Design IV, and MIM 312 Architectural Design VI.

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

Met

Not Met

**2014 Visiting Team Assessment:** Individually and in group projects, through studios and individual projects, the visiting team found substantial evidence that students exhibit sound fundamental design skills derived from courses, mentorship, dedicated teaching, collaborative learning, travel abroad to different cultures, curious and incisive thinking, and hard work.

**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.***

Met

Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 415/e, Housing Design Philosophy of Contemporary Architects; MIM 420/e, Logic and Theory of Design; and MIM 480/e, The Changing Workplace.

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

Met

Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 116/e Architectural Design II & Rendering Techniques, and in MIM 212/e Architectural Design IV.

**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.***

Met

Not Met

**2014 Visiting Team Assessment:** This criterion was met in MIM 423 Architecture After 1960, MIM 441 Architecture and Society in Antiquity, MIM 452 Grand Projects in the History of Istanbul, and MIM 464 Architecture and Society in Antiquity.

**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.***

Met

Not Met

**2014 Visiting Team Assessment:** Studio projects demonstrate an understanding of the diverse needs, values, and abilities of different aspects of Turkish culture but students are not often challenged to think—and create—beyond their own borders. As an institution whose vision is to be a world university, and whose objective is to contribute to a global society, it is ITU's responsibility to engage students in a better understanding of the design needs of other cultures.

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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 211/e Architectural Design III, MIM 212/e Architectural Design IV, MIM 351/e Architectural Design V, MIM 312/e Architectural Design VI, MIM 411/e Architectural Design VII, MIM 492/e Graduation Project, MIM 242/e Environmental Control Studio, MTZ 501 Architectural Design I, MTZ 511 Architectural Design II, MTZ 513 Architectural Design III, and MTZ 517 Architectural Design IV.

**Realm A. General Team Commentary:** Critical Thinking and Representation skills are exercised throughout the curriculum, from the earliest design studios through graduate projects. These skills are developed in insightful research projects and are expressed through a broad range of media. Cultural diversity stood out as a topic that wasn't emphasized to the extent that others in this realm were.

**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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 316 Space Use and Evaluation in Housing and MIM 411/e 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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** Studio projects do not consistently show the ability to design sites and facilities for use by individuals with varying abilities. Specifically, accessible routes are shown in upper-level studio courses such as MIM 492/e Graduation Project, but accessible elements are not indicated for parking lots, toilet rooms, sleeping quarters, and assembly spaces in any studio projects. MIM 461/e Environmental Design for the Disabled and Elderly addresses this criterion, but it is an

elective course, not required. The ability to design accessible sites and facilities seems especially critical for such a cosmopolitan city that is situated on very hilly terrain.

- 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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 242/e Environmental Control Studio and MIM 431/e Construction Project.

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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 351/e Architectural Design V, MIM 312/e Architectural Design VI, MIM 411/e Architectural Design VII, and MIM 492/e Graduation Project.

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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 411/e Architectural Design VII and MIM 492/e, Graduation Project.

- 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:**

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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 411/e Architectural Design VII and MIM 492/e, Graduation Project.

- 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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in ECO 201/e Economics and MIM 332 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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 242 Environmental Control Studio, MIM 358 Building Protective Materials, MIM 386 Sound-Absorbing Materials and Construction, and in MIM 346 Building, Climate and Energy Relationships.

- 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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 103/e Strength of Materials, MIM 113/e Statics, MIM 152 Statics & Strengths of Materials, MIM 232/232/e Reinforced Concrete Structures, and MIM 253/253/e, Steel Structures.

- 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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is Met with Distinction in MIM 162/e Introduction to Building Construction, MIM 231/e Building Materials, MIM 261/e Building Construction Methods, and MIM 244/e Building Element Design.

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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 242 Environmental Control Studio.

**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.***

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 162/e Introduction to Building Construction, MIM 231 Building Materials, MIM 242/242/e Environmental Control Studio, MIM 244/e Building Element Design, MIM 261/e Building Construction Methods, MIM 326 Acoustical Problems in Theatre and Concert Halls, MIM 358 Building Protective Materials. MIM 386 Sound-Absorbing Materials and Construction, and MIM 421, Architectural Survey and Restoration Studio.

**Realm B. General Team Commentary:** Student achievement in this realm is strong, with multiple technical courses delivering comprehensive knowledge of building systems. The students' ability and understanding of building technical systems is further exercised in almost every studio course throughout the curriculum. The ability to design accessible sites and facilities needs to be improved.

**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.***

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 244/e Building Element Design, MIM 242/e Environmental Control Studio, MIM 431/e Construction Project, MIM 411/e Architectural Design VII, and MTZ 517 Architectural Design IV.

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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 455 Human Resources Management in Building Construction.

**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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM492/e, Graduation Project.

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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is Met with Distinction in MIM 332/e Construction Management and Economics and MTZ 515 Professional Practice.

**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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 332/e Construction Management and Economics and MIM 497 Time Management in Building Production.

**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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion was met in MIM 455 Human Resources Management in Building Construction.

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

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 341/e Urban Planning Law.

**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.**

Met  
 Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 332e Construction Management and Economics and MIM 528 Theory and Criticism in Architecture.

**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.***

Met

Not Met

**2014 Visiting Team Assessment:** This criterion is met in MIM 223/e Social Psychology.

**Realm C. General Team Commentary:** Students gain a thorough understanding of the many facets of the business of the architecture and construction industries in courses such as MIM 332/e Construction Management and Economics, MIM 455 Human Resources Management in Building Construction, and MIM 497 Time Management in Building Production. There are many aspects of practice that are unique to Turkey that students learn in detail, and in which they seem well-prepared to contribute.



## PART TWO (II): SECTION 2—CURRICULAR FRAMEWORK

**II.2.1 National Authorization:** *The institution offering the substantially equivalent degree program must be or be part of an institution that has been duly authorized to offer higher education in the country in which it is located. Such authorization may come from a federal ministry or other type of agency.*

Met

Not Met

**2014 Visiting Team Assessment:** The ITU Faculty of Architecture is a “validated program” by the Higher Education Council of Turkey.

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

*Curricular requirements are defined as follows:*

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

*This requirement must be met at the university or tertiary school level. Post-secondary education cannot be used to meet this requirement. At least 20% of the credits in the professional architecture degree must be outside architectural studies either as general studies or as electives with other than architectural content.*

- **Professional Studies.** *The core of a professional degree program consists of the required courses that satisfy the NAAB Student Performance Criteria (SPC). The professional degree program has the discretion to require additional courses including electives to address its mission or institutional context.*
- **Electives.** *A professional degree program must allow students to pursue their special interests. The curriculum must be flexible enough to allow students to complete minors or develop areas of concentration, inside or outside the program.*

Met

Not Met

**2014 Visiting Team Assessment:** The range, depth and diversity of curricular offerings and professional degrees offered at ITU meet NAAB’s standards for offering professional degrees in architecture under the standards set for Substantial Equivalency.

### 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**

**[ ] Not Met**

**2014 Visiting Team Assessment:** Curriculum review and development at ITU is conducted by a faculty committee composed of full-time professors from five different disciplines within the department—design, technology, conservation, history and theory, and structural systems. The committee reviews and evaluates proposals, makes recommendations to department heads, may have certain recommendations referred to the full faculty for consideration, and accedes to the final decision of a faculty board composed of the dean; department heads; elected professors, associate professors, and assistant professors; and a student representative.

**PART TWO (II): SECTION 3—EVALUATION OF PREPARATORY/PREPROFESSIONAL EDUCATION**

*Because of the expectation that all graduates meet the SPC (see Part Two, Section 1, above), the program must demonstrate that it is thorough in the evaluation of the preparatory education of individuals admitted to the NAAB substantially equivalent degree program.*

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

**[X] Met**

**[ ] Not Met**

**2014 Visiting Team Assessment:** Transfer students are not accepted into the ITU architecture program; therefore, evaluations of preparatory and other pre-professional academic credentialing are not an issue.

**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**

**[ ] Not Met**

**2014 Visiting Team Assessment:** The exact language found in Appendix 6 of the NAAB Conditions for Substantial Equivalency was found in both the print and digital editions of the course catalog (p. 41).

**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 2013 NAAB Procedures for Substantial Equivalency*

**[X] Met**

**[ ] Not Met**

**2014 Visiting Team Assessment:** The NAAB Conditions and Procedures for Substantial Equivalency were located by the team on both the English language and Turkish language portions of the website.

**II.4.3 Access to Career Development Information**

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

**[X] Met**

**[ ] Not Met**

**2014 Visiting Team Assessment:** Access to career development information is suitably and appropriately incorporated into the program via informal advising between students and faculty, and through mandatory work experience in both office and on-site settings. There are also links on the website to the compulsory internship requirements.

**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**

**[ ] Not Met**

**2014 Visiting Team Assessment:** The requested documents were located by the team on both the English and Turkish portions of the website.

### **III. Appendices**

#### **Appendix 1. Program Information**

- A. History and Mission of the Institution and the Program  
APR, page 5
  
- B. Long-Range Planning  
APR, page 20
  
- C. Self-Assessment  
APR, page 22

**Appendix 2. Conditions Met with Distinction**

- I.1.1 History and Mission
- I.1.4 Long-Range Planning
- I.1.5 Self-Assessment Procedures
- I.2.1 Human Resources and Human Resources Development
- B.10 Building Envelope Systems
- C.4 Project Management

### Appendix 3. Visiting Team

*Team chair*

Lisa Chronister, AIA  
2118 NW 21st Street  
Oklahoma City, OK 73107  
[lchronister29@gmail.com](mailto:lchronister29@gmail.com)  
405 971 4199 mobile

*Team member*

David L. Hoffman, FAIA  
Law/Kingdon, Inc.  
345 Riverview, Suite 200  
Wichita, KS 67203  
316 268 0230, x235  
316 268 0205 fax  
316 304 4402 mobile  
[dhoffman@law-kingdon.com](mailto:dhoffman@law-kingdon.com)

*Team member*

Ted Landsmark, M.Env.D., JD, PhD  
21 Evergreen Street  
Jamaica Plain, MA 02130  
[Ted.landsmark@comcast.net](mailto:Ted.landsmark@comcast.net)  
617 939 3860 mobile

*Team member*

Charlie Klecha, Assoc. AIA  
573 Kevins Drive  
Arnold, MD 21012  
810 841 6343 mobile  
[charlieklecha@aias.org](mailto:charlieklecha@aias.org)

*Local facilitator*

Almula Köksal İşikkaya  
Asst. Professor  
Yildiz Technical University  
Istanbul, Turkey  
[almulakoksal@yahoo.com](mailto:almulakoksal@yahoo.com)



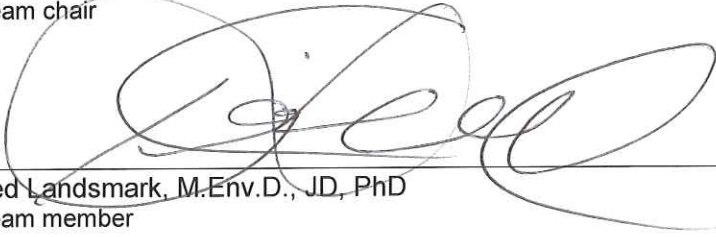
**IV. Report Signatures**

Respectfully Submitted,



---

Lisa Chronister, AIA  
Team chair



---

Ted Landsmark, M.Env.D., JD, PhD  
Team member



---

David L. Hoffman, FAIA  
Team member



---

Charlie Klecha, Assoc. AIA  
Team member



---

Almula Köksal İşikkaya  
Local facilitator

# **Program Response to the Visiting Team Report**

This report covers explanations under three headings, namely: conditions not met, causes of concerns; and further explanations.

## 1. Conditions Not Met

Two of the SPCs have been classified under the “conditions not met” classification, namely: “accessibility” and “cultural diversity”. We would ask the NAAB for the re-consideration of the status of these two SPCs with respect to the actions taken and detailed explanations provided in this report. Further improvements will be carried out continuously.

### II.1.B2: Accessibility

MIM 461/E “Environmental Design for the Disabled and Elderly” course status has been modified and transformed into a compulsory course by the faculty administration board at its meeting on 15.12.2014. This transformation is active since then. The proof of this change is provided in the Appendix. Furthermore, a meeting has been carried out with the participation of all academics in charge of architectural design studios to ensure that all studios cover the accessibility criterion.

### II.1.A10: Cultural Diversity

Architectural education curriculum at the ITU encourages the students to think globally and to respond to the needs of local cultures in their designs. Just a few examples for projects addressing cultural diversity are provided on the following link: <http://www.mimarlik.itu.edu.tr/lcerik.aspx?sid=13266>

Furthermore, meetings have been carried out with the participation of the main and semester coordinators of the architectural design studios so that they ensure the fulfilment of the cultural diversity criterion in a more structured way and emphasise this criterion in the end-semester colloquiums to all academics involved in design studios. The following courses have been required to cover the cultural diversity topics:

- Compulsory courses: MIM212E Architectural Design 4; MIM351E Architectural Design 5; MIM321E Contemporary Architecture; MIM312E Architectural Design 6; MIM411E Architectural Design 7; MIM492E Graduation Project
- Elective courses: MIM 437E Analysis and Critics on Contemporary World Architecture; MIM 495E Housing in Developing Countries; MIM 377E Cities and Architecture; MIM 422E City Form and Architecture; and MIM 425E Architecture Today

Brief explanation on the examples for the projects which addressed cultural diversity criterion have been provided in the following paragraphs:

- **Crimea:** The Project covered the subject of university campus design in Cyprus, where there is ongoing political, social, cultural and economical changes. The studio focus was based on the cultural, and local aspects as well as on “learning by designing” principle. The academics leading to this project aimed to cultivate the students a real respect for and appreciation of other cultures and practices.
- **Napoli:** The main aim of the project Urban HUB\_Naples were to design dynamic, multi-layered building(s)/structure(s) that can change according to the urban flow and

contemporary use and prospect; as well as to support and relate the spaces and functions flourished spontaneously within the tension between order and disorder at the Port of Naples and around. With these aims, the proposals acted like “hub”s enabling the urban flow. The students were requested to design a building or a group of buildings in relation with the city and the port in the region defined by the main axis in the urban design area at the Port of Naples which is the most important port in the center of the Southern Italy. Therefore, proposed spatial solutions of “urban hub”s aimed to sustain and ameliorate the existing dynamics and functions of the area, and to provide a multi-layered and flexible spatial configuration fulfilling urban possibilities. The projects are available on the following link: <http://urbanhubnaples.blogspot.com.tr/>

- **Cyprus:** The diploma project, Cyprus Buffer Zone as an open city, focused on the ways of approaching the buffer zone in Lefkosa/Nicosia as a potential for launching a new city that allows the participation of all people in urban life from different ethnicities, social backgrounds, ages, genders, and nations. Possibilities of dispossession, commonness, and participation have been discussed during the project. The aim was to raise discussion on the ways in which architectural design may respond to the new topography created by the nature and ruin in the buffer zone. The projects are available on the following website: <https://kibrisacikkent.wordpress.com/>
- **Romania:** The graduation project International Centre for Advanced Studies in Murighiol, Romania has taken Danube Delta as the primary problematic area, and Murighiol as the implementation area. Students were expected to design a programmed building for its site, and present the ability to think as well as work with the formatives coming from a wider context. Within this context, they had to think iteratively among different scales covering the European scale as well. Many environmental factors influencing the Danube River transform the Danube Delta into a fragile ecosystem. The ecodiversity and its preserved state turn the delta into a natural biosphere. For this reason, the work site at Murighiol required a way of thinking by creating scenarios at different scales within frameworks such as; conservation of natural environment, ecosystem, administration, sustainability, vitality. This kind of upper scale readings and scripting studies have been realized at the beginning of the process. When it came to the building scale, the formative properties of the scenarios have been dependent upon their power. While some of the scenarios took their power from a new transportation system within the delta, others from the climatic data or from the semi-wetland landscape of the area, whereas others stayed as non-formative general scenarios. The work site has been quite large in relation to the drafted approximate program, lacked strong site references, taking place in a low-density settlement area. The essential factor in this project was mainly the Danube Delta context. Some students created and used their own references, even sometimes get stuck in them, while some of them transformed the water-land interface and used it as reference. Another difficulty of the site appeared when the architectural proposal was envisaged as a fragmentary composition due to the fact that the program contained complex functions. A dilemma occurred at the point where this setup faced circulation problems between the units due to severe climatic conditions (cold and humid winter). Therefore, some students proposed semi-underground or covered circulation solutions, while most of them proposed fragmentary compositions. Very limited compact solutions were witnessed. A design problem of this kind seems to be adequate for the last stage of the education from different aspects; being completely a real problem in all directions, challenging the ability to produce ideas also for other geographies, evaluate other contexts and

establish proposals. These achievements are being tested as the abilities, which the contemporary architect today has to hold.

- Global Architectural Design Studio:** The global studio has been established between the University of Oklahoma (OU) College of Architecture, Graduate Architectural Design Studio and the Virtual Design Studio of the Istanbul Technical University (ITU) as a manifestation of their common goal for developing architectural responses to existing urban problems following contacts and communications between the representatives of these institutions. Its spring 2006 focus-project, titled *Urban Regeneration-Sustainable Housing Project at Zeytinburnu, Istanbul: An International Community Project*, is the study of housing as a tool for urban regeneration with due respect to affordability, sustainability, and seismic design in proposed developments. Zeytinburnu, Istanbul is the selected venue, because of its still existing approximately three thousand structurally critical buildings within its municipal boundaries and its transitional character that would benefit from pilot studies, such as that presented herein. The study has been arranged around course planning, pre design study, master planning and design phases to allow for first developing a course syllabus to give general and course-specific information, historical background, studio policies, and references that guides designers through their work. Pre design phase aimed at developing a thorough understanding of the projects requirements-problem definition that covers site specific information and analysis, area requirements, building and development code analyses, and the applicable LEED-NC sustainability requirements, resulting in a reference document. The master planning phase has yielded three workable alternatives around which international teams were formed which had further studied these schemes and individually designed dwelling units on two individually selected blocks. Information required and generated during the course of the project has been communicated among instructors and students by means of institutional video conferences, websites, and e-mail.

Virtual Architectural Design studios (VDS) are also widely actively carried out within the curriculum. Beginning from the year of 2000, different VDSs were implemented every year between different institutions or in the same institute. These virtual design studios were implemented in the context of project-based elective courses for architectural design students. Some of these VDSs are shown in Table 1. Two of these VDS are briefly explained in this report.

In the first experiment of the VDS 2000, eleven students from ITU and six students from University of Sydney collaborated in the design of a house module for the Olympic Village O'live 2000 in virtual environment. The second experiment was in 2002 between ITU and UU. The design subject was an infill studies in an existing environment in the historical area of Istanbul. The first one was at undergraduate level, and the second one was at graduate level. The theoretical motivation of the experiments are based on the student centered design education concept that assumes each student (or group of students) develops his/her own way of design using his/her own cognitive structuring. The VDS experiments are implemented as the simulation of real world studio of the architectural design education. Under the described VDS framework of the courses, students were asked to: manage their team (leadership, decision making model); organise communication procedures (communication styles, time using, channels, frequency, etc.); establish design criteria; and choose design representation media (3D Max, ActiveWorlds (in the first experiment), CAD Models).

The materials given to the students included: site; design brief; schedule; project presentation; assessment procedure; and assessment criteria. The information given to the students included: VDS concept; VDS samples; online Tutorials for WEB pages; and online Tutorials for Active Worlds (in the first experiment).

Table 1. Examples for the VDSs experiments in Faculty of Architecture, ITU.

		Sydney 2000-01	Uludağ 2002-03	Oklahoma 2005-06	Eskişehir 2005-06
<b>Design Problem</b>		Virtual world	Real world	Real world	Real world
<b>Design Process</b>	<b>Synchronous</b>	S	S		S
	<b>Asynchronous</b>	AS	AS	AS	AS
<b>Critics</b>		S	S	S	S
<b>File Sharing</b>		Yes	Yes	No	Yes
<b>Communication Media</b>		Virtual world	Video conferencing WebCam	Video conferencing	Video conferencing
<b>Software</b>		Active worlds Netmeeting White Board	CAD 3DMAX Netmeeting White board	CAD 3DMAX MSN	CAD 3DMAX MSN Netmeeting Imagination at work
<b>Graduate / Undergraduate</b>		U	G	U+G	U
<b>Uniculture / Multiculture</b>		MC	UC	MC	UC
<b>Student Heterogeneity</b>		He	Ho	Ho	Ho
<b>Time difference (hours)</b>		10	-	8	-
<b>Duration</b>		1 term	1 term	1 term	1 term

The students were required to establish a web site in which the information about themselves and their design project, collected information about previous olympic villages and the site information, their design scenarios, design concepts, design criteria and precedents, as well as their design proposals would be displayed.

Procedure: Both in Sydney and Uludağ experiments, all participants could access the information collected by the others through ITU. Web sites that include text files and graphical images play important roles for asynchronous communication. During the design process, the students were required to use online publishing tools in order to share knowledge about the design problem, design precedents, design brief and design criteria. The virtual reviews and the decisions about the design projects were mediated by using different technologies and different CAD software in both universities, in both experiments. The teams built their design proposals by using building elements in Active Worlds and located their olympic house module at specified coordinates. Each team member had access to this site. The students collaborated through the overall design process in the Sydney case.

In the Uludağ experiment, design problem was a real site in Istanbul historic peninsula and design solutions of both universities were presented in the web site of the course.

Communication: Communication between the teams in the design processes were synchronous: video conferencing and online chat in Active Worlds in the Sydney experiment; videoconferencing and online chat in NetMeeting in the experiment. Two types of synchronous design collaboration - scheduled and unscheduled - were implemented: In the scheduled meetings, the students discussed with team members and developed the design proposals. In the unscheduled meetings, they exchanged information among the team members and obtained critical feedback in order to solve the design problem successfully. During the semester, the students of the VDS participated in scheduled synchronous collaboration five times. While four of these sessions were implemented in Active Worlds, one was conducted in NetMeeting as a videoconference session. In NetMeeting, the students shared their design ideas, and developed their preliminary sketches of designs. In this process, the students who hit the mouse button gained the right to manipulate the sketch, until the remote member hits his or her mouse button. The students used NetMeeting and Whiteboard environments for developing design concepts and preliminary designs, while they used Active Worlds for developing design proposals. Digital images were shared, digital models were produced and voice was also used in this videoconference session. The students interact in real time over the same drawing during the concept development process in Whiteboard. Each user is identified by a cursor of a different color. After the regular contact through different communication channels, such as e-mail, NetMeeting, Whiteboard, chatting in Active Worlds, etc., some of the students contacted with other members of the team at different dates & times intensively; while some of the teams preferred to work independently.

One of the sketches from the first experiment which was generated during the synchronous collaboration is shown in Figure 1. Design example which was developed by using Active Worlds is shown in Figure 2, and by using 3D CAD model is shown in Figure 3.

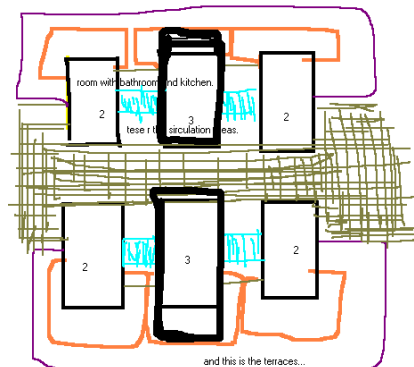


Figure 1. The collaborative sketches of students in Netmeeting-whiteboard environment.

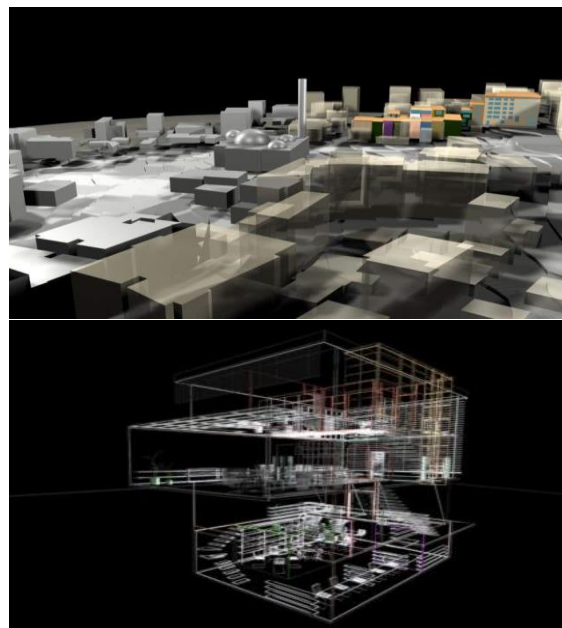




Figure 2. Project designed by using ActiveWorlds



Figure 3. Project designed by using 3D CAD software





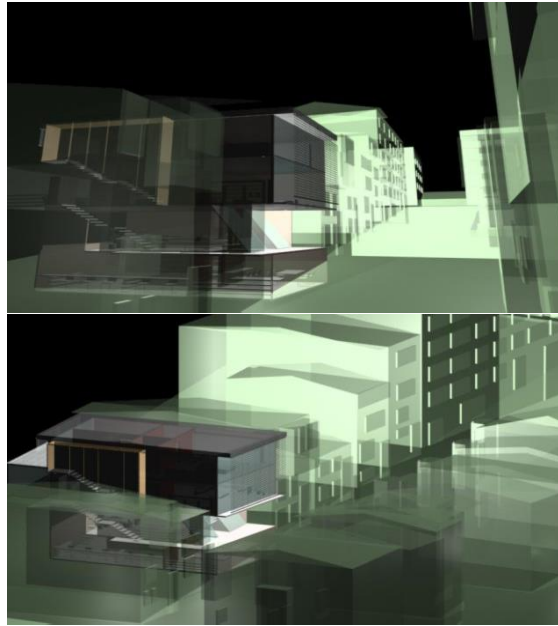


Figure 4. Project and its environment designed by using 3D CAD software

In the UU experiment, the students used NetMeeting and Whiteboard environments for developing design concepts and preliminary designs. 2D and 3D models of the real environment and design solutions (Figure 4) were shared on the website and critics were realized in the videoconference sessions.

While the students were represented by avatar in Active Worlds in the first experiment; in the second experiment, students used web-cam in videoconference sessions and the team members were able to see each other.

The students were required to evaluate the VDSs by given questionnaires about the following topics:

1. Knowledge level at the beginning and at the end of the studio in the context of using information and communication technologies;
2. Learning environment in traditional / computer mediated;
3. Design process and sharing design knowledge.

These two experiences and the works produced by the teams of students from the different institutions allowed us to draw some preliminary conclusions about the organisation of a virtual design studio.

- Using technology

Enhancing design quality by using the information and communication technologies for collaboration is an important research area. In the VDS 2000, the aim was simply to teach the design collaboration in a virtual environment by using these technologies and to place this new technology within architectural design collaboration, rather than to search for the ways to enhance the design quality and creativity.

**Video Conferencing:** The video conferencing session was implemented in a different research room from computer lab so that the other teams working in the lab were not affected. Students found video conferencing by using NetMeeting software very exciting and useful but it was difficult to establish with across time zones. The transmission of sound was problematic.

Need for online tutorials: Theoretical courses had been given to the students about the virtual design studio and related areas such as virtual design studio concept, the internet, digital communication and different digital media types, designing of web pages, representation and documentation of design information, design tasks and collaboration approaches.

Whiteboard: Whiteboard was easy to learn but the graphic images were very simple. (Figure 1). It was difficult to relate cursor movements.

Designing WEB pages: Most of the students had no previous experience with designing World Wide Web pages. They learned documentation of textual and visual knowledge in order to share them.

- Communication

Communication leads to the sharing and exchange of design information, both formally and informally, during the design process (Saad, Maher, 1996). The major communication issues were on the organization and management of teams, the process of developing scenarios and design criteria, and the production of preliminary designs, solution alternatives and final design.

The design reviews were in a different atmosphere according to the traditional design studio. The final designs were the product of the teams, not individuals. The design projects were generated in the synchronous mode in Active Worlds in the first experiment; and in 3D CAD software in the second experiment. The contributions to the final design were the product of the entire team. A strong collaboration as opposed to the competition between the team members was observed.

Communication process was in both synchronous and asynchronous modes. Verbal, text-based and graphics-based communication types were used. Both formal (scheduled) and informal (non-scheduled) meetings took place in the collaboration process. Five formal (scheduled) and several informal (non-scheduled) sessions were organised. Students communicated with their own group members by studying together in the virtual design studio, or by using icq and NetMeeting software from their homes.

- Collaboration

Collaboration level and type during the design process depended on the problem type to be solved and phases of the process. Students generally worked as a team in the phase of concept development, preparation of the program, developing the scenario and alternative designs.

- Sharing information

In VDS environment, the students learned the collaborative design and sharing design information while they used to design individually in a very competitive process in a traditional design studio. The following information were shared:

- Design information: Design brief, site information, design precedents, design criteria and scenarios;
- Personal information about designers.

Sharing design tasks / design strategies (within design teams of two institutions / between team members)

- \* Team behaviour: The dynamism of the team was a very important factor in the team's success. Teams of successful students produced successful results. Some groups of students continued the video conferencing after the formal sessions of the studio in order to debate their projects, while some other groups preferred to terminate the design collaboration at the end of the formal session. Students generally evaluated their team behaviour as a collaborative type.
- \* Control of process: The students were free in the selection of the group representative who will manage design collaboration in their teams.
- \* Problems in teams: Establishing communication between the team members took time because they did not know each other and their design capabilities. Students who came together randomly encountered some problems and communication difficulties in the process.

- Virtual practice versus actual practice

In the first experiment, the students explained that looking at and perceiving the 3D design product in a virtual world during the design process was very exciting. 3D modelling in Active Worlds provided students with real time visual design evaluations to test the design decisions immediately. Apart from this, perceiving the designs from different points of view helped to this evaluation. Having a limited vocabulary of building elements in Active Worlds, made decision making easier and quicker in the design process.

Since the students were not familiar with the virtual world (Active Worlds) at the beginning of the design process, they faced difficulties in the realization of their design projects because of the limited vocabulary of building elements. They had to change their preliminary design concepts and ideas according to the limits of the virtual world and to produce the most "buildable" project with the limited resources of the world, which was a simulation of actual world's problems. In the second experiment, students had to develop their design proposals and also modelled the environment by using 3D CAD software.

- Digital media as a design tool

In traditional design studios, by using CAD software, the students generally generate 2D models of designs. By using 3D modelling software for developing their design projects, they experienced that the digital media is design media, rather than a drawing tool.

In traditional design studio, design is often seen as a personal process whereas in practice it is viewed as a cooperative and a collaborative experience. Information and communication technologies give opportunities to the students in VDS to experience cooperation and collaboration in design process. Computer-mediated collaborative work provides the integration of knowledge, experience and creativity with the capabilities of information and communication technologies in architectural design education. The collaboration in design process should be implemented from the beginning of it. The collaborators access to the Internet, enabling efficient communication via e-mail, www, FTP and video-conferencing from different locations. Virtual Design Studio facilitates active sharing of files (which include graphics, text and images) over the Internet and/or ISDN lines. Video-conferencing provides to share design ideas between trainers and students from different locations.

In VDS, members of design team can work on a design project synchronously or asynchronously. Video-conferencing system gives the ability to discuss these design projects

synchronously, while www, e-mail and similar communication techniques give opportunities for asynchronous collaboration. Netmeeting allows synchronously sharing the CAD software. The contents of one of the user monitor are seen on the other user monitor. Users are able equally to take the control of the design process remotely and also collaboratively generate alternative design solutions. Netmeeting also gives the chance to capture the drawings at a stage of design. Decisions, which are given in design process, can be recorded in textual and graphical format. Web based cooperation technologies and video-conferencing systems give possibilities to develop and to apply new collaboration approaches in architectural design studios.

All participants of the VDSs learned the possibilities, limitations and difficulties of using the internet for a design collaboration. In the VDS, since the students chose freely their team behaviour and software, their design processes were productive and design solutions were successful. From academic point of view, the virtual design studios are beneficial as they provide a suitable environment for virtual professional practice and an opportunity for design collaboration with different communities without competition.

In design studios a development is observed from digital architectural design studios to virtual design studios in which design collaboration is possible independent of time and location. The important point here is to use the various media which is provided by the diversity of the technology in a way to contribute the development of architecture. VDSs enable designers to collaborate, communicate, and share design ideas with each other in different geographical locations and time periods. They create virtual design environments for distance collaboration.

In recent years, in addition to the globalisation, the reflections of the developing information and communication technologies to other disciplines lead to numerous national and international cooperation and studies. Designing in digital environment through internet provides opportunities of cooperation in the design process and collaboration in design. Thus professionals from several disciplines and designer who are geographically far away from each other, get the opportunity of cooperation for the designs in virtual environment and can consult to each other.

Learning of students from each other who are different cultures, is another important effect of VDSs. They are beneficial as they provide a suitable environment for design collaboration with different communities without competition. In the information age, learning is not limited to formal education. A designer needs the media for her/his personal development in a rapidly changing environment and in the globalisation process.

The Virtual Architectural Design Studio (VADS) was founded by State Planning Organization of Turkey.

## References

- Chen, N, Kvan, T., Wojtowicz, J., Bakergem, D. V., Casaus, T., Davidson, J., Fargas, J., Hubell, K., Mitchell, W., Nagakura, T., Papazian, P. (1994). Place, Time and The Virtual Design Studio. In A. Harfman, M. Fraser (Eds.), *Reconnecting, ACADIA'94*. (pp: 115-131). U.S.A.
- Dave, B., Danahy, J. (1998). Virtual Study Abroad and Exchange Studio. In T. Seebohm, S.V. Wyk (eds.), *Digital Design Studios: Do Computers Make a Difference, ACADIA'98*. (pp:100-115).
- Donath, D., Kruijff, E., Regenbrecht, H., Hirschberg, U., Johnson, B., Kolarevic, B., Wojtowicz, J. (1999). Virtual Design Studio 1998 – a Place2Wait, *Proceedings of ECAADE'99 Conference*.

- Engeli, M., Mueller, A. (1999). Digital Environments for Learning and Collaboration, Architecture, Communication, and Creativity, In O.Ataman, J.Bermudez (eds.) *Media and Design Process, ACADIA'99*. (pp: 40-52).
- Kolarevic, B., Schmitt, G., Hirschberg, U., Kurmann, D., Johnson, B. (1998). Virtual Design Studio: Multiplying Time. In *Proceedings of ECAADE'98 Conference*.
- Maher, M.L., Simoff, S.J., Cicognani, A. (2000). *Understanding Virtual Design Studios*, London: Springer Verlag.
- Maher, M.L., Simoff, S.J., Cicognani, A. (1997). *The Potential and Current Limitations in a Virtual Design Studio*. <http://www.arch.usyd.edu.au/~mary/VDSjournal/index.html>
- Saad, M., Maher, M.L. (1996). Shared Understanding in Computer-supported Collaborative Design, *Computer-Aided Design*, vol:28(3). p. 186.
- Wojtowicz, J., Butelski, K. (1998). A Case Study of the Virtual Design Studio in Practise: The Olympic Stadium for Krakow 2006. In *Proceedings of ECAADE'98 Conference*.
- Wojtowicz, J., Papazian, P., Fargas, J., Davidson, J. N., Cheng, N. (1993). Asynchronous Architecture. In F. Morgan, R.W. Pohlman (Eds.). *Education and Practise: The Critical Interface, ACADIA'93*, (pp:107-117), U.S.A.

## 2. Causes of Concerns

### A. Lack of faculty educational diversity

*Virtually all faculty have at least one degree from ITU and very many have all three of their degrees (BS, MS, and PhD) from ITU. Ostensibly, this is because ITU is proud of its graduates and truly believes that they make the best faculty. Still, having the majority of faculty educated in the same manner may lead to a lack of diversity in teaching methods and views. New ideas and processes could be inadvertently blocked out. This could jeopardize the students' opportunities for broader and more challenging learning.*

**Explanation:** The academics are appointed based on free competition in accordance with the ITU regulations. The calls for positions are announced country wide in the newspapers and on the relevant official websites. As ITU is among the leading universities in Turkey, among the applicants the ones who have been graduated from ITU perform better compared to the other participants. As a result of this open competition, majority of the academics at the ITU have their degrees from the ITU. The administration and the academic appointment regulation at the ITU support and encourage the appointment of the academics from other universities and from other countries as well.

### B. New department organization

*The department has recently reorganized itself to create twelve "working groups" in an effort to take advantage of faculty expertise and to formally create opportunities for interdisciplinary teaching and research. This is an exciting time and the new strategy seems to have buy-in from both administrators and faculty. The reorganization is in its infancy and may have unintended consequences if not appropriately monitored and benchmarked. There may also be opportunities for interdisciplinary activities outside the department that have not yet been investigated.*



**Explanation:** The success of the reorganization is enhanced with the help of the total quality management, information technologies, IT based performance assessment, and adherence to the principles of transparency, visibility, and accountability.

### C. Complacency

*The department is thriving and is justifiably proud of its success. One frequent consequence of success is complacency. It will be a challenge for the program to remain vigilant in its efforts to remain at the top. It appears that the administration is already motivated by the growth in rival private universities. Also, the program's strong administration and faculty-based self-assessment procedures appear well-positioned to address any complacency issues, perhaps through some analysis of peer institutions or global design education trends.*

**Explanation:** The administration and academics are active in adapting contemporary developments in the field and are in close collaboration with the universities in the EU and in the US. The motto of the ITU is "contemporary since centuries". The active and competitive nature of the ITU as well as highly competent, competitive and active academics at the ITU will keep the department of architecture of the ITU as the leader in its field in Turkey.

### 3. Further Explanations

*Another strength is the program's remarkable gender diversity. The student body is an extraordinary 72% women. An enviable percentage of the faculty are women (58%). Several reasons have been theorized by people in the department for the faculty statistics, including that academia better supports the work/life balance that women seek and that traditional architecture practice and construction industry jobs are male-dominated and therefore more difficult for women to navigate and succeed. Whatever the reasons, the team couldn't help but wonder if ITU should take the lead in recognizing and discussing the implication of these statistics. Does an architecture education taught by women to women happen in the same way as the traditional models to which we are all accustomed? How might such a setting better prepare women for their future roles in the profession? ITU may be in a unique position to study these questions, and the answers may have a profound impact on the profession as a whole.*

**Explanation:** The academics are appointed based on free competition ensured by the ITU regulations. The students are accepted to the department based on free competition ensured by the central examination of Turkey. For this reason, there is no gender bias in the appointment of academics nor of students.

The academics work on gender topics as well. In the Departmental Research teams, a group of female academics have already focused on unveiling the potential of



female gender in the academic field as well as in the engineering-technology field in Turkey. Since 2006, a series of EU funded projects together with national grants have been carried out as well as surveys and conferences have been organized on the career of female scientists and academics.

The overall aim was to deepen the quantitative knowledge base of female scientists in the higher education sector. Focused on their career position in Europe and Turkey, an initial innovative pilot survey has enhanced the existing knowledge on the career patterns of female researchers at universities (conducted by, G.Sağlam, A. Özsoy, B. Ersolmaz, P. Dursun, M. Aksoy, E. Uzer between 2006-2008). The survey mapped the situation of female scientists in universities working under different economic, social and political conditions) new member states – post-socialist countries from Central and Northern Europe: Hungary and Estonia, and an EU-candidate country, Turkey.

Following this initial step of mapping and a conference entitled Beyond the Glass Ceiling: Women Academics in Engineering, Technology and Life Sciences across Europe UNICAFE Dissemination Conference in November 2008 at ITU (by G.Sağlam, A.Özsoy, M.Aksoy,P.Dursun). First European Women Rectors Conference was organized to encourage female academics for competing decision making positions in academia. European Women Rectors Conferences have been organized by ITU since 2008 as biennial conferences 2010, 2012, 2012.

In 2009 this research group initiated a new action to establish a research center in ITU with special focus on SET; Research Center for Women in Science, engineering and Technology. Furthermore, this group has been able to convince the rectorate to include gender equality issues in the strategic plan of the university in 2010.

A network among female academics has been set up among Turkish universities (including ITU, Karadeniz Technical Uni., Kocaeli Uni., Akdeniz Uni., Ankara Uni., Yıldız Uni., and Çanakkale University) with the initiative and coordination of the ITU research group (G. Sağlam, P. Dursun, B. Tantekin Ersolmaz, E. Uzer). The research project unveiled the potential of female academics, and supported accumulation of knowledge on their career experiences. BMT-KAAG, Türkiye’de Bilim Mühendislik ve Teknolojide Kadın Akademisyenler Ağı, 2010-2013 (Network of Academics in Science, Engineering and Technology in Turkey), coordinators: G. Sağlam (2010-2012), P. Dursun (2012-Temmuz 2013), Group: M.G. Tan, Ö.A. Çevik, N.K. Gümüüşçüoğlu, H. Çağlayan, S. Cankur, G.C. Deniz. İTÜ scientific research project unit (BAP) funded by participant university / a private company.

Based on the above-mentioned research projects, a series of reports have been prepared on the career of female academics in science and technology and women’s participation in the Turkish Higher Education.

EC’s SHE Figures show that Turkey is one of the leading countries in terms of female representation in academia. 29% of all full professors are female in Turkey. Turkey has the minimum value of “glass ceiling index” among EU countries demonstrating that women academics are not facing obstacles/ barriers in their academic progression as their counterparts in EU. Turkey is also a leading country in terms of women academics in SET. ITU set a very special case in this figure with 39% full professors.

## Selected reports and papers:

Sağlamer, G., Tan, M.G., Dursun, P., Çelik Ö.A., Gümüšoğlu, N.K., Çağlayan, H., Cankur, S., Deniz, G.C, 2013, Türkiye’de Bilim Mühendislik ve Teknolojide Kadın Akademisyen Ağı (network of women academics in science, engineering and science) BMT, KAAG, İTÜ Report, June 2013

Sağlamer, G., Tan, M.G., Çağlayan, H., 2013, Türk Yüksek Öğretiminde Kadın Katılımı Üzerine Bir Araştırma (research on the participation of turkish women academics in turkish higher education) Editors: Sağlamer, G., Tan, M.G., Çağlayan, H., Concluding report: Türkiye’de Bilim Mühendislik ve Teknolojide Kadın Akademisyen Ağı (network of women academics in science, engineering and technology), december 2013.

Sağlamer, G., Erolmaz, B.T., Ozsoy, A., Aksoy, M., Dursun, P., Uzer, E., 2011, Survey of the University Career of Female Scientists at Life Sciences Versus Technical Universities, Report of Istanbul Technical University, Advisor: M. Tan (Comparative analysis on women's career in medical sciences and technical universities–UNICAFE), Supported by Funding under the 6th Research Framework Programme of the European Union, October, 2011.

Palasik, M., Papp, E., 2008, UNICAFE, Beyond the Glass Ceiling, University Career of Female Academics in Engineering, Technology and Life Sciences, Edited by Palasik, M., Papp, Syntesis report of the participating universities. Budapest University of Technology and Economics, Medical University of Graz, Istanbul Technical University (G. Sağlamer, B. Tantekin Erolmaz, A. Ozsoy, M. Aksoy, P. Dursun, E. Uzer, Advisor: M. Tan), Semmelweis University, Tallinn University of Technology, University of Oulu, University of Rome ‘Tor Vergata’

## Conference papers

Sağlamer, G., M.G. Tan, P. Dursun, N. K. Gumusoglu, H. Caglayan, N.Adak, G. Yirmibesoglu, M.Timurturkan, T. Tunca, B. Poyraz, S. Ulusoy, S.Ö. Kahraman, Z. A. Deniz, B. E. Gultay, İ. Ozdemir, A. Sagsoz, M.Erbay, M. Tekcan, S. Y. Sahin, Y.G. Sahin, E. Oztan, S .N. Dogan, 2014, “Women’s Participation In Turkish Higher Education”, Book of Abstracts, 8th European Conference on Gender Equality in Higher Education, Vienna University of Technology, Vienna, AUSTRIA–Eylül 3 –5, 2014



İSTANBUL TEKNİK ÜNİVERSİTESİ  
Mimarlık Fakültesi

İTÜ 

Tarih : 15.12.2014  
Sayı : 82899863-105- 643  
Konu :

**Mimarlık Bölüm Başkanlığına**

Mimarlık Bölümü NAAB Akreditasyon değerlendirmeleri göz önünde tutularak, Doç.Dr. Göksenin İNALHAN tarafından verilmekte olan MIM 461 kodlu “Özürlüler ve Yaşlılar için Çevre Tasarımı” ve MIM 461E kodlu “Environmental Design for the Disabled and Elderly” isimli seçmeli derslerin zorunlu ders olarak Mimarlık Bölümü Ders Planı’na eklenmesi önerisi Fakülte Kurulu’nun 12.12.2014 tarihli, 6 sayılı toplantısında görüşülerek uygun bulunmuş olup 2014-2015 Eğitim-Öğretim Yılı Bahar Yarıyılından itibaren zorunlu ders statüsünde Mimarlık Bölümü Lisans Ders Planı’na eklenmesi hususunda Mimarlık Bölüm Başkanlığı tarafından %30 ve %100 İngilizce Ders Planı toplam kredi değerlendirmesinin yapılarak durumun 09.01.2015 tarihine kadar Dekanlığa bildirilmesi konusunda gereğini bilgilerinize rica ederim.

  
Prof. Dr. Sinan Mert ŞENER  
Dekan

**EK:** Ders katalog formları.

  
19.12.14

-Eğitim Komisyonu'na