

Making a Successful Transition from University to the Real World: The Saudi Arabian Job Market and University Curriculum as a Bridge

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Abstract

The purpose of this paper is to explore the internship experience of Saudi females who were about to graduate from the first women's architecture program in the Kingdom of Saudi Arabia (KSA). Of particular interest to this study is the examination of architecture courses and teaching strategy from a practical point of view, internship length; input of departmental advising committees, course load, contact hours, and program curriculum. In addition, there is exists the local cultural resistance against females who want to work. Moreover, the study assesses if the graduates are prepared to have a smooth transition from university student life to productive employees in local architecture firms, without receiving additional training. Also, this study may help architecture departments understand if they are preparing students to enter into the "real world" of architecture as practiced in Saudi Arabia. The findings may also encourage architecture departments in Saudi universities to review existing curricula and fill the gap(s) between theory and application where appropriate.

Key words: Curriculum, Alignment, Internship, Architecture, Real World, Advising Committee, Saudi Women.

Introduction

There are numerous challenges faced by women who are studying architecture in Saudi Arabia. They also face many obstacles to work in a society which is not ready to accept them; especially, in technical fields such as architecture. Problems start with the curriculum, difficulties in conducting construction site visits, restricted work opportunities in the local companies, lack of separate office spaces according to the local customs, and acceptance of a new field of study for women and for a community which is not used to seeing women working in the architecture field. Although these problems exist, many people think that Saudi women are the same as women from the other countries. In this regard Dr. Chaman Rahim who is originally from Bangladesh has spent 34 years as an educator in Jeddah. In her career, she has witnessed many positive changes for women in the education sector, and is an optimist who believes that the work environment for women is changing for the better. It is misconception that Saudi women stay at home and do not contribute to the society (Sayeed, 2010, p. 3). Rahim stated that "Education for girls was officially proclaimed by King Saud in 1959 on Saudi radio" (Sayeed, 2010, p. 3). Further, Rahim said that "King Faisal and his wife, Queen Effat, made great contributions to girls' education" (Sayeed, 2010, p. 3). Dr. Rahim also noted that "the process was slow at first and progressed gradually. Girls always seize any opportunity to study, and today women are at the forefront in almost all fields of work. This is indeed a great achievement" (Sayeed, 2010). Finally, just as in other countries, Saudi Arabia would like to have a role and share in developing the society.

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Dr. Rahim states:

Don't believe it when people tell you women here are unhappy and restricted. I spent more than half my life with them, and I can assure you that Saudi women are just like any other women, with similar aspirations and dreams (Sayeed, 2010, p. 3).

Cultural Obstacles

It is important to utilize the education acquired after graduating from colleges or university. Many women quit universities prior to graduating, either because of marriage, family problems, or unsatisfactory academic performances. Female dropout rates from universities are astonishing; and have reached 60% in the academic year 2005-06 (Mesbah, 2009). In the same way many women do not work after graduating, because either their husbands do not want them to work, culture barriers, or family and children responsibilities. One thing is for sure, education (secular or religious) is power and educated women can take care and raise their children much better than women who do not have education. On the other hand many women want to work but cannot find a job for several reasons. One of the biggest reasons is many companies are not ready to hire women. Nashwa Taher, a well-known business woman state that in Saudi Arabia, "accused many companies of obstructing the employment of women" (Abdul Ghafour, 2010, p. 2). Abdul Rahman Al-Rashed, Chairman of Asharqia Chamber said, "Statistics show that about 82,000 women graduates are jobless" (Abdul Ghafour, 2010, p. 2). Also, he added that "The work of women is more valuable than the money they possess because they represent half of the population and their active participation in economic activities is essential" (Abdul Ghafour, 2010, p. 2). The spokesman for the Labor Ministry of KSA Hattab Al-Anazi said that, "Some big companies have already opened women's sections inside their headquarters and branches" (Abdul Ghafour, 2010, p. 2).

The biggest problems educators face is when students complain that they cannot obtain access to the field to observe real world practices; and also to collect materials from showrooms, and retail stores; that they need for class projects. For example, in the Building Construction course at the university of this case study, students are required to write a paper on assigned building material such as brick, block, drywall, tiles, stones or related materials. However, some students complained that they could not go out alone and need to get help from brothers, close relatives, drivers, and fathers to go with them to get materials. Additionally, students complained about difficulty regarding conducting interviews for class projects and also, calling on salesmen regarding product information.

Encouraging Steps

Saudi Arabia has taken many positive steps to encourage women's progression in the labor market. First of all, Saudi women are graduating from universities at higher rates than Saudi men, similar to the gender rate differential seen in western countries. The Foreign Ministry of Saudi Arabia has made progress in accommodating women by offering jobs as international relations researchers and clerks at the women's section of its branch in the Mecca province. They are required to have a bachelor's degree in the field of international relations, or public relations experience, or political science for an international relations post, and a diploma in secretarial studies for clerks (Abdul Ghafour, 2010, p. 2).

Other opportunities are also provided in diverse fields such as in an all-women's light fixture factory, and car saleswomen, where they sell cars to other female buyers. It should be noted that legally, women still cannot drive in KSA. Furthermore, other sectors which accommodate women are the financial industry (e.g. banks), sales, medical profession (i.e. doctors, nurses, pharmacists and other medical related fields) and education. Additionally, the Labor Minister Ghazi Al-Ghusaibi issued a regulation where men are not allowed to work in

lingerie shops (Murphy, 2007). This regulation would help more females to enter into the sales fields. Moreover, other initiatives to promote Saudi women to work in the labor market includes prison employments, welfare centers, vocational fields, libraries, tourisms, food industries, first aids, beauty salons, computers industrys, and telecommuting. Furthermore, the government has opened 17 technical colleges in different parts of the country to encourage women to study in technical fields (Al-Munajjed, 2010). Additionally, the author witnessed women working at the check outs of Panda Hyper Super Market in Andalus Mall Jeddah, whereas in the past it was not possible to see any women working in a supermarket.

Many other types of educational institutions are open for women in support of pursuing educations. According to Karmi, "all Saudi Arabia women's education figures showed a marked improvement on what had been the case 20 years before. Nonetheless, the differences between male and female school attendance are striking" (Karmi, 1996. p 71). Education awareness among the Saudis is increasing especially in those families where their offspring have studied abroad. They support women to study and be the part of workforce. According to Kapiszewski, despite all these obstacles the number of women's educational institutions as well as the number of women students has been steadily growing, their illiteracy rate has been substantially declined, and they consistently do better on standardized school tests and achieve higher grades than their male counterparts (Kapiszewski, 2001. p 236).

Saudi Graduates Vs Foreign Graduates

Is there really a difference between the US, French, Australian, Canadian, or UK graduates vs. KSA graduates? Different people have different opinions regarding this issue. However, after teaching for four years in Saudi Arabia, talking to faculty members from other institutions, and teaching for eighteen years in the US, there are for certainly differences in students' work ethics, study habits, language skills, computer technology skills, writing power, institutions curriculums, learning styles, teaching styles needs for the population of students, and quality of educators.

Local employers prefer to hire foreign graduates vs. local graduates for many reasons. Sara Nadir received her BS in marketing from the UK. She believes, "studying abroad definitely makes one more qualified than those who graduate from universities in the Kingdom" (Bashraheel, 2010, p. 4) reported in the Arab news. Osama Feda graduated from the US and strongly agreed that studying abroad has improved his research skills and has been given him exposure to many new ideas. Mr. Feda believes, "The most important thing, more than the degree itself, is the experience of living in a foreign country and dealing with people" (Bashraheel, 2010, p. 4). Amani Bantan, the owner of a recruiting company for women called Golden Telad said, "The Saudi higher education system in many areas is not developed or updated. Those who graduate from other parts of the world have better English language, the most advanced curriculums and the level of exposure and education is completely different" (Bashraheel, 2010, p. 4). She also stressed that "As a recruiter, I notice that those who graduate from institutes inside the Kingdom are unstable at work; they're not really sure what they want. As for graduates from foreign universities, they are more disciplined and more committed to their jobs" (Bashraheel, 2010, p. 4). Dalia Bajunaid, a local bank recruiter officer, described foreign graduates as "more mature" and "responsible." "I endorse both. It all comes down to personality in the end" (Bashraheel, 2010, p.4). A team of Office of Juvenile Studies (OJS) undergraduate, graduate and doctoral student employees conducted a study on work and learning at the University of West Florida (UWF) and presented a research paper at the Annual Meeting of the American Educational Research Association in April, 2004. Findings of this research support that if information taught in the classroom is aligned with the "real world," it would help students to apply theories in the real world regardless if

learned in Saudi or foreign institutions. “Many found they were able to take the theories they learned in the classroom and actually apply the theory during their employment experience” (Hayes, Thorn, Brame, White, and Kunselman, 2004, p. 20).

Internship

The main objective of internships is to provide real world experience to students who are looking to explore pertinent knowledge and skills required to enter into a specific career field, before graduation. Also, another objective of internships is that students should learn how to apply the theoretical concept learned in classrooms to the real world. There are different types of internships. Each type depends on the length, paid, unpaid, credit, non-credit, and the amount of time students working. In some institutions, students have options to enroll in one or more than one internship or an internship every other semester. Penny Loretto has more than 20 years of experience in internship advising, career counseling, human resources, and writes regularly on internship topics. She has divided internship into seven types, namely: paid internships, internships for credit, non-profit internships, summer internships, service learning, co-operative education, and externship (Loretto, 2012). Kettering University (KU) (formerly General Motors Institute and GMI Engineering and Management Institute), located in Flint, Michigan USA is a unique institution, especially, when it comes to co-op. Their programs are heavily dependent on co-op. As a matter of fact their curriculum is designed using co-op as the focal point. For example, students receive real-world experience while pursuing a degree. They have four three-month terms per year, similar to quarter system. The first term starts in the summer instead of fall as in other institutions. Students are divided into sections A and B. One section is always on campus attending classes and the other is on a co-op, gaining real world experiences. Table 1 shows a typical schedule for both sections.

Table 1 Section A and B Schedule

Section “A” Students				Section “B” Students			
Summer Term	Fall Term	Winter Term	Spring Term	Summer Term	Fall Term	Winter Term	Spring Term
Attending Classes at University	Working for Co-Op Employer	Attending Classes at University	Working for Co-Op Employer	Working for Co-Op Employer	Attending Classes at University	Working for Co-Op Employer	Attending Classes at University

KU programs last five years, instead of the typical four year programs in the US universities. In the final year, students continue the three months alternation in the Summer and Fall. However, they spend winter and spring terms in co-op and at the same time, complete a thesis project which has been develop mutually by the student and employer where they are taking the co-op (Kettering University, 2011).

The lengths of internships vary from institutions to institutions and also it depends on the field of study. Technical fields such as architecture need lengthy or in some cases more than one internships because, of the nature of field. However, most Saudi universities have only one, internship for architecture students where they spend only 5 weeks working 20 hours per week. Furthermore, university and students have difficulties finding internships for many of the reasons discussed in the culture obstacles section. Regardless of difficulties, many Saudi and non-Saudi females also not prefer to work locally because of the work environment and discouragement they received from male coworker. As a result, many students have taken and prefer to take internships outside of Saudi Arabia.

Advising Committees

Locally, very few educators and institutions know about the importance of having advising committees for each program in their respected institutions. Some institutions have advising committees only on paper, which doesn't take advantage of their skills and professional contacts. The question then is what is an advisory committee? A handbook for faculty in career and technical programs published by the Minnesota State Colleges and Universities mentioned advising committees and their activities as a group of employers and employees who advise faculty on the plan, improvement, implementation, assessment, continuation, and revision of programs (Minnesota State Colleges, 2012). In reality an advising committees members have a lot of input in developing, aligning, and improving the curriculum, helping finding internships for students, providing internship specifications, validation of program content, program credibility, and guiding institutions in finding resources, donors and more. Furthermore, the purpose of an advisory committee is to establish industrial and community partnerships with the institution's administration, program staff and faculties. An advisory committee also serves an imperative role in keeping programs demand-related, vigorous, and on the cutting edge of technology (Cantrell, 2000).

Curriculum

Developing a curriculum is not an easy task, especially when the student population is diverse. Even though, most of the students are local Saudi's in the architecture major at the university of interest. Many others are from different countries. Students from other countries are planning to go back to their native countries or to work in countries other than Saudi Arabia. Very few educators in the architecture departments are educated in the US; as a result, other countries educators having problems follow up the US system. Additionally, the biggest problem is retention of the US-educated educators, who have problems in adjusting cultural and work environment; resulting them not stay long enough to make a fair contribution in improving the existing curriculums. Furthermore, the most decision making administrators are not educated in the US and do not have an in depth knowledge of the US undergraduate education system, which is little complicated than Europe system of education. The higher education ministries, educators, colleges, universities, and administrators need to know how curriculum relates to:

- Evaluating teaching and learning processes in their education systems
- The content related to local panorama.
- The political, environmental demands of the society including industrial and socio-economic demands.

Perhaps, it is useful to know before going into detail of the working definition of curriculum and how the word is used in higher education. It was a metaphor based on the Latin meaning of the word: a run around a race track. The "race" a student must "run" to complete a set of institution courses requirements. Definitions of curriculum within higher education are plentiful. According to Turner & Tanner, a curriculum is a "plan or program of all experiences which the learner encounters under the direction of a school" (Turner & Tanner, 1995, p. 158). Some other definitions geared toward colleges or universities are:

- The course requirements for a degree or certificate.
- What is taught to students?
- The content of what is taught in an institution, course, or an educational program.

Typically, in the US, in order to earn a bachelor degree, students take courses in several categories including arts, language, social studies, science, mathematics, English, major

courses, and electives (i.e. technical, in-college, or free electives) . In a like manner, the local architecture programs have divided graduation requirements into two categories, namely General Education (GE) and Major. Furthermore, GE is divided into eight categories: written communication, mathematics and statistics, natural sciences, computer science, arts, humanities, social sciences, interdisciplinary studies, and fitness and wellness (Catalogue, 2010-11).

Credit and contact hours for the local architecture programs are not aligned with the standard used in the US for calculating credit hours versus contact hours. For example, according to a local university catalog course flow chart, 1st year 1st semester students should enroll in seven courses, which would add up to 18 credit hours. Moreover seven courses add up to 29 hours of contact (Catalogue, 2010-11). See table 2 below. Bear in mind, most classes meet a minimum of twice a week or in some cases three times a week. It means students must spend 29 hours per week either in classes or labs. Additionally, according to a local university catalog, 1st year 2nd semester students should enroll in seven courses, which add up to 19 credit hours. Furthermore, seven courses equal to 30 contact hours (Catalogue, 2010-11). See table 3 below. Questions arise here, how much time should students spend for each courses assignments, project(s), readings, research, study for mid-term/ final exams, and more. The other effect of this policy falls on faculty members and it leads to a serious problems and burdens them. The main drawbacks of this policy are that only credit hours are counted as a teaching load, and not contact hours.

Table 2 Year 1 Semester 1 Course flow

Year 1							Semester 1
Courses							
Major	Major	Math	Arabic	Islam	Composition	Sport	Total Courses
5 Credits	3 Cr.	3 Cr.	2 Cr.	2 Cr.	2 Cr.	1 Cr.	7
Total Credit Hours = 18 Hours							
Contact Hours							
10 Hr.	6 Hr.	4 Hr.	2 Hr.	2 Hr.	3 Hr.	2 Hr.	
Total Contact Hours = 29 Hours							

Table 3 Year 1 Semester 2 Course flow

Year 1							Semester 2
Courses							
Major	Physics w/lab	Major w/lab	Math	Islam	Composition	Seminar	Total Courses
5 Cr.	3 Cr.	3 Cr.	3 Cr.	2 Cr.	2 Cr.	1 Cr.	7
Total Credit Hours = 19 Hours							
Contact Hours							
10 Hr.	5 Hr.	4 Hr.	4 Hr.	2 Hr.	3 Hr.	2 Hr.	
Total Contact Hours = 30 Hours							

The problems above can be solve by increasing all 2 credit hours courses (e.g. Arabic, Islam, composition, religion, research method, history, core major courses, and more) to 3 credit

hours. Furthermore, all courses with labs (e.g. physic, studio, major, chemistry and related courses) should be increased to a minimum of 4 credit hours. It is important for decision making administrators to understand how to calculate credit hours and contact hours because right calculations would help students as well as faculties. After reviewing the course flow, the local architecture curriculums are problematic and needs to be aligned. For instance, 3 credit hours courses must meet only 3 contact hours, unless there are special circumstances. It is not fair to force faculty members to teach more contacted hours than what they are supposed to teach, and students to attend 3 hours, when the class worth is only 2 credit hours.

It should be noted that each faculty member has to cover a certain amount of materials and topics in each course, regardless of 2 or 3 credit hours. Instructors still have to treat each course as a separate course and need to cover a certain amount of material to meet the course objectives and master students in certain areas. Additionally, instructors need to give students quizzes, assignments, projects, mid-term, and final exams. By reducing credit hours for each course, it would push students to enroll in more courses per semester, which also create problems for students to manage their schedule. It should be noted that 2 credit hours courses have almost the same amount of work for students and faculty, than if they were to enroll or teach in a 3 credit hours course. When institutions have too many 2 credit hours courses, then students have to take more classes. On the other hand, if the credit hours for these same courses increase, then the students would have to enroll in fewer classes. Resulting from this, students would concentrate more and study in depth, instead of running from class to class.

Calculating Course Load

There are many guidelines provided for students in calculating course load. Questions arise, how many credit hours should students take in the first semester or should they take a heavy load in the first semester or start with a lighter load and gradually increase it? Academic advisors suggested taking 12 credit hours in the 1st semester and gradually increasing credit hours in the following semester for full time students (UofM-Flint, 2007). Many students are not aware that they need to spend time outside the class for each course and also not aware that there are guidelines provided regarding how much time students should spend for each credit hour he/she enrolls. These guidelines are provided to learn courses thoroughly and to earn good grades. The rule of thumb for college and university students is to study 2 to 4 hours per week for each credit hour they are enrolled in. The other suggestions are made to divide courses into 3 categories: easy, average, and hard courses. For examples, students enrolled in a 3 credit hours course that course falls in easy category should study for (3 credit hour x 2 hours from pocket = 6) 6 hours, excluding the 3 hours spent in class. Similarly, students enrolled in a 3 credit hour course that falls in the hard category, then (3 credit hour x 4 hours from pocket = 12) 12 hours of study is required (Bennett, 2000). By looking at the local architecture programs course flow for the first and second semesters, students need to study what is shown in table 4 and 5.

Table 4 Year 1 Semester 1 Average Study Load Calculation

Year 1	Semester 1
Total Courses = 7	
Total Credit Hours = 18 Hours	
Total Contact Hours = 29 Hours	
Average Total Study Time Per Week (18 x 3 = 54) 54 Hours	
Total Hours Students Should Spend Per Week (29 + 54 = 83) 83 Hours	

Students who would like to study courses meticulously and to earn better grades, their schedule for the above semester would be if they would like to study 5 days per week, (83÷5

= 16.6) **16.6** hours per day. On the other hand, if they would like to study 7 days a week then, they need to study ($83 \div 7 = 11.86$) **11.86** hours per day assuming not missing any classes.

Table 5 Year 1 Semester 2 Average Study Load Calculation

Year 1	Semester 2
Total Courses = 7	
Total Credit Hours = 19 Hours	
Total Contact Hours = 30 Hours	
Average Total Study Time Per Week ($19 \times 3 = 57$) 57 Hours	
Total Hours Students Should Spend Per Week ($30 + 57 = 87$) 87 Hours	

In the same way, if students would like to study 5 days a week in the 2nd semester, then they need to study ($87 \div 5 = 17.4$) **17.4** hours per day. Likewise, if they would like to study 7 days a week then, they need to study ($87 \div 7 = 12.43$) **12.43** hours per day assuming not missing any classes.

Case Study

Participants

The case study highlighted in this paper involved 28 undergraduate architecture female students in their senior, who were enrolled in a professional practice course in their final semester to earn a Bachelor of Science in Architecture and were ready to enter in the local job market of Saudi Arabia. This course is required to be taken, right after finishing an internship at the university. According to the registrar office (2009) statistic students enrolled in the university are from 26 countries including Saudi Arabia. Sixty-six percent of students are Saudi citizens and 34% are from different countries. Students from other nationalities are either born in Saudi Arabia or have lived here for a long time. Also, they are eligible to work in the local companies either on their parent iqama (i.e. government ID card) or employers' iqama.

Students were asked to write a project report on their internship experiences, recommendations on the curriculum, and courses taken to see their views on whether university is teaching is helpful for them or whether the university should make recommendations to align the curriculum.

The following are quotes from 10 randomly picked students conclusion and comments, regarding curriculum, courses, internships, and more. Names of students have been changed for privacy reasons:

Sara: After finishing an internship, the university should improve things and to teach software such as: Soft Plan, AutoCAD & Maya. Also, they should teach how to work in teams, Organization and Modeling classes.

Anwar: I would highly recommend the university to provide a number of things for student that would probably be beneficial for them in their future. These things should include: workshops on manual drawings to enhance students abilities in freehand drawings, some workshops to be familiar with the most known scheduling software, workshops even offering Photoshop, AutoCAD, and 3D MAX classes as a technical elective and providing them the proper ways of presentation and I would highly recommend to have more than one summer internship for students to learn how it would be like in the real world. On the other hands, I

believe that the university is on the right track. An internship proven to be extremely beneficial and I am sure it will be for the new undergraduate students.

Abrar: Institutions of repute like our university would do well to make their students familiar with courses like Photoshop, 3D, advanced AutoCAD, and sketching for design development. It would also be useful to make sure that students carefully prepare their CV, portfolio, and testimonials to prove their experience.

Areej: I recommend that in the future university should teach Primavera program that helps students in estimating the project management course listed in our curriculum and 3D max that will improve their modeling and rendering skills in addition to intensive sketching classes so that students will be more prepared before graduating. Only 8 females were employed in a company where I took my internship.

Azza: I recommend developing some of the curriculum in order to smooth work transition from the university to the real world by increasing the internship period or making it two internships instead of having one internship throughout the whole bachelor degree. Also, I would highly recommend the university to provide workshops and lectures for the students which would probably be useful for them in their future. I highly recommend all the graduate architects as well as the interns to apply for a job in the ADPI Company and be a part of their team and I am confident they will get the opportunity to make a difference and increase their knowledge in a very small period.

Abeer: University should improve some things that are missing, such as: 3D Max, Photoshop and Sketch Up. The main software in the university is Revit and it is not well known in the architecture work field. Also, should provide advanced modeling classes.

Lama: I would be finding some complexity due to the fact that I am not a professional working with Photoshop, excel, and Primavera. Also, I was assigned to make my own portfolio in one of the university's courses, but I believe that it needs to be enhanced, and a bit more detailed.

Khadija: I would recommend the university to teach the new students courses on project management and how to estimate the cost of the project. Also to teach software such as: Microsoft project or Primavera. It would make students more effective if the first and the second year students use their manual skills and they don't use the computers for the design studios.

It's better if the university arranges trips to the construction sites so the students will gain the practical experience. I recommend the university to offer courses in construction materials.

Our internship should be more than five weeks. It should be three-four months. As a graduate we lack a lot of skills and experience such as manual skills, Photoshop, 3D software's, site work, and practical experience. I hope the university would overcome all the mistakes they did with first cohort of graduates.

Noora: In my opinion and according to my experience as a former intern I would say the realm of the real working world is very different from the realm of educational world. The field is very competitive and requires experience, confidence, and commitment. And it's very essential for every student to try to prepare for this tremendous transition and take steps to shorten this gap.

Most of new graduates around the world have working experience attained during their university years starting from the summer of 2nd year, which is a must-have hiring requirement of any firm and is sorely lacking in many students. Finally, it is very important for the university to provide opportunities for work during the studying years and to stress on its importance. Furthermore, the number of hours required for interns must be increased irrevocably as 5 weeks of internship is not sufficient. Also, extensive knowledge of different designing software must be first on an architecture student's list and the university can facilitate this by providing courses or series of workshops.

Rania: I recommend the university to start internships from the second year. Also, the company uses different software such as 3D Max, 2nd level of AutoCAD, and Photoshop, so I recommend the university to offer courses on these programs.

Asmaa: I highly recommend that in the future university should teach Primavera program that helps students in estimating project in the required project management course, which is listed in our curriculum in addition to intensive sketching classes, so that students will be more prepared before graduating.

Wedad: I recommend the university to focus more on teaching the student several design software so when they graduate they have knowledge about more than software that will be needed to work within the architecture offices and to make it a must that each student have to submit a portfolio at the end of each studio to be easier on her to design her final portfolio that she will be use it when she apply for a job.

Conclusion

Some valuable comments and suggestions were made by students in the project report recommendation section, which would help in aligning the architecture program. Also, it would help faculty members to align their teaching content. As a result, it would help students make a successful transition from university life to the real world. First of all, the architecture programs curriculum has a lot of room for improvement. The most important element is the feedback from the program advisory board members, who can help students to find internships and jobs in reputable companies. Additionally, they can help finding scholarships, donors, leads on community services advise on design and construction management software, and what courses to teach from a practical point of view. In term of major gaps in courses related to architecture, it is missing courses in architecture and related topics such as: architecture foundation courses, architecture and technical drafting studios with proper drafting tables and permanent parallel bars, construction materials with labs, construction systems, advanced construction drawings, specifications, advanced AutoCAD, design and construction management software, (e.g. estimating, scheduling) and much more.

Other gaps that should be considered for improvement is a heavy semester load plan (i.e. 18-19 credit hours per semester for students) for faculty and students. Also, other element in curriculum is lacking in seminars and workshops related to new technology, construction techniques, new materials, and the use of sustainable materials and software needed attention too. It should be noted that it is easy to purchase new software but it is hard to find qualified instructors to teach them. It would be wise to train qualified faculty members prior to purchasing new software. Furthermore, only one five-week long internship is not enough to gain work knowledge of the real world. More than one internship or extended internship and hands-on training would bring a positive effect on improving the curriculum and students' satisfaction prior to graduation. Additionally, some courses curriculum should be written in a

way to incorporate community services. For example, students may be asked to design in one of the design studios for a non-profit association (e.g. Habitat for Humanity in the US) who build housing for low income people. The same concepts can be used to estimate, schedule, and manage the project. Finally, females need encouragement from employers to accommodate them in architectural firms and a lot of support because of culture barriers.

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