

Tuning Middle East and North Africa T-MEDA

Fifth General Meeting

International Forum “Policy, Research and Practice in Higher Education”

Bilbao, 22-27 May 2016

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FIFTH GENERAL MEETING

VENUE AND PROGRAMME

VENUE

University of Deusto
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48009 Bilbao, Vizcaya, Spain

ACCOMMODATION

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CONCEPT NOTE

Tuning Middle East and North Africa (T-MEDA) project is aimed at the implementation of the Bologna tools in Southern Neighbouring Area universities through building of a framework of **comparable, compatible and transparent programmes of studies**.

In order to achieve this objective, the project is applying the Tuning methodology and developing **Tuning Reference Points in Architecture, Law, Nursing, and Tourism**. For that reason, the wider **consultation on competences and student workload** has been conducted in Middle East and North Africa with key stakeholders – academics, students, graduates and employers. The information received during this activity is relevant not only for the project aims but also for wider **research** academic discussion.

The **practical aspect** of the project is reflected in the development, implementation, monitoring and improving of degree programmes for the first cycle by the participating Universities. The updated and modernised programmes will be taught no less than 1 year and subject for broad discussion of **good practice in the implementation** of competence-based approach and ECTS-based programmes in T-MEDA region.

Tuning Middle East and North Africa project is specially designed to promote **regional and international cooperation** between universities. For that reason, the involvement of policy makers and decision makers in the discussion of project findings is extremely important for sustainability of results and overall impact. Accordingly, **International Forum on policy, research and practice** in higher education is aimed to support **informed decision-making** in higher education policies of T-MEDA partner countries, provide **evidence-based contemporary research** on competence based approach, and present **good practices in the implementation** of ECTS based programmes.

Participants of the Forum are **academic and management staff** of T-MEDA project, **researchers and practitioners** from different institutions, **decision-makers and policy-makers** in the area of higher education. International Forum will serve as a platform that allow participants to share their experience, knowledge and vision, discuss the current strategies and future trends in modernisation of higher education in the Middle East and North Africa.

PROGRAMME

22 May 2016		Arrival of participants
19:00	20:00	Welcome Reception and Early Registration
20:00		Dinner in Barceló Hotel Nervión
23 May 2016		Opening of the Meeting. International Forum (CRAI, -1st Floor, Room Ellacuria)
08:30	09:00	Registration
09:00	09:30	Welcome and Opening Sultan Abu-Orabi Aladwan , Secretary General of the Association of Arab Universities (Jordan) Kamal El Mahdaoui , Consul General, Consulate General of the Kingdom of Morocco in Bilbao (Morocco) Adolfo Morais Ezkerro , Deputy Minister of Universities and Research, Education, Language Policy and Culture, The Basque Government (Spain) Alvaro de la Rica Aspiuntza , Vice-Rector for International Relations of the University of Deusto (Spain) Pablo Beneitone , Director of Tuning Academy, University of Deusto (Spain)
		Panel I "Evidence Based Policy in Higher Education: Current Practices and Future Trends in Middle East and North Africa" PART I Chair – Ivan Dyukarev , Project Manager, University of Deusto (Spain) Presentations:
		– Sultan Abu-Orabi Aladwan , Secretary General of the Association of Arab Universities (Jordan) – Violet Makuku , Project Officer of the Association of African Universities (Ghana) – Ahmad Jammal , Director General of Higher Education, Ministry of Education & Higher Education (Lebanon)
10:30	11:00	Coffee Break CRAI -1st Floor
11:00	12:00	Panel I "Evidence Based Policy in Higher Education: Current Practices and Future Trends in Middle East and North Africa" PART II Chair – Ivan Dyukarev , Project Manager, University of Deusto (Spain) Presentation:
		– Ahmed Magdy Ibrahim A. Elgohary , President of Egypt-Japan University for Science & Technology (Egypt) – Hady Mahfouz , President of the Holy Spirit University of Kaslik (Lebanon) – Abdalmatlub A. A. Taher , President of Omar Al-Mukhtar University (Libya) – M. Maher Kabakibi , President of Arab International University (Syria)
12:00	13:00	Panel II "Implementation of Competence Based Programmes: Challenges and Good Practice" Chair – Pablo Beneitone , University of Deusto (Spain) Presentations:
		– Asier Altuna , University of Deusto (Spain) – Shaher Rababeh , Hashemite University (Jordan) – Darina Saliba , Holy Spirit University of Kaslik (Lebanon) – Abeer Eswi , Cairo University (Egypt) – Lamlom Sabah , Omar Al-Mukhtar University (Libya)

13:00	14:00	Lunch CRAI -1st Floor
		Panel III “Quality Assurance of Educational Programmes: T-MEDA Case Study” Chair – Sultan Abu-Orabi Aladwan , Secretary General of the Association of Arab Universities (Jordan) Round table: <ul style="list-style-type: none"> – Mohamed Rafat Mahmoud, Assistant Secretary General of the Association of Arab Universities (Jordan) – Rafee Hakky, International University for Science and Technology (Syria) – Mohammad Bashayreh, Yarmouk University (Jordan) – Abeer Eswi, Cairo University (Egypt) – Mairna Mustafa, Hashemite University (Jordan)
14:00	15:00	
15:00	16:00	Panel IV “Research for Educational Practice and Policy Making: Competence-Based Approach” PART I Chair – Anna Serbati , University of Padova (Italy) Presentations: <ul style="list-style-type: none"> – Luigi Filippo Donà dalle Rose, University of Padova (Italy) – Nadia Hached, University of Algiers (Algeria) – Rafee Hakky, International University for Science and Technology (Syria) – Mairna Mustafa, Hashemite University (Jordan)
16:00	16:30	Coffee Break CRAI -1st Floor
		Panel IV “Research for Educational Practice and Policy Making: Competence-Based Approach” PART II Chair – Luigi Filippo Donà dalle Rose , University of Padova (Italy) Presentations: <ul style="list-style-type: none"> – Ahmad Alhusban, Hashemite University (Jordan) – Liliane Kazzi, Holy Spirit University of Kaslik (Lebanon) – Chiat Khalid, University Mohammed First (Morocco) – Anas Lamchichi, University Moulay Ismail (Morocco)
16:30	17:30	
17:30	18:00	Summing Up, Recommendations, Closing the Forum
20:00		Gala Dinner in Barceló Hotel Nervión

24 May 2016 SAG Meeting (CRAI)

09:30	11:00	Plenary Session -1 st Floor, Room Ellacuria
09:30	10:30	Students’ workload survey analysis. Credits and its link with Tuning Methodology. Edurne Bartolome and Pablo Beneitone , University of Deusto (Spain) Tasks to be done at the SAG Parallel Sessions. Pablo Beneitone , University of Deusto (Spain)
10:30	11:00	Open Debate and Questions
11:00	11:30	Coffee Break CRAI -1st Floor
11:30	16:00	SAG Parallel Sessions 7 th Floor: Room 1 (Nursing), Room 2 (Architecture), Room 3 (Law) 8 th Floor: Room 4 (Tourism)
11:30	13:30	SAG work Revising the programmes in accordance with survey results and QA peer review. Revising the Reference Points, adding the data on students’ workload.
13:30	14:30	Lunch CRAI -1st Floor
14:30	16:00	SAG work

		Revising the programmes in accordance with survey results and QA peer review. Revising the Reference Points, adding the data on students' workload.
16:00	17:30	Visit to the University of Deusto

25 May 2016		Summary Session (CRAI)
09:00	13:30	SAG Parallel Sessions 7 th Floor: Room 1 (Nursing), Room 2 (Architecture), Room 3 (Law) 8 th Floor: Room 4 (Tourism)
09:00	11:00	SAG work Revising the programmes in accordance with survey results and QA peer review. Revising the Reference Points, adding the data on students' workload.
11:00	11:30	Coffee Break 7 th Floor Atrio
11:30	13:30	SAG work Revising the programmes in accordance with survey results and QA peer review. Revising the Reference Points, adding the data on students' workload.
13:30	14:30	Lunch CRAI -1st Floor
14:30	17:00	Plenary Session -1 st Floor, Room Ellacuria
14:30	16:00	Project Results. Sustainability and Future Development Pablo Beneitone , University of Deusto (Spain) Ivan Dyukarev , University of Deusto (Spain) Rafee Hakky , International University for Science and Technology (Syria) Mohammad Bashayreh , Yrmouk University (Jordan) Abeer Eswi , Cairo University (Egypt) Mairna Mustafa , Hashemite University (Jordan)
16:00	16:30	Practical Aspects and Running of the Project Ivan Dyukarev , University of Deusto (Spain)
16:30	17:00	Summing Up, Closing the SAG Meeting

26 May 2016		Networking and Brainstorm Sessions (CRAI)
08:30	10:00	Academic Cooperation Facilitators - Ivan Dyukarev and Maria Yarosh, University of Deusto (Spain), Anna Serbati, University of Padova (Italy) Project Management Facilitator - Ivan Dyukarev, University of Deusto (Spain)
10:00	10:30	Coffee Break Closing the Fifth General Meeting
10:30	14:30	Visit to Guernica

27 May 2016		Departure
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REFERENCE POINTS

REFERENCE POINTS FOR THE DESIGN AND DELIVERY OF DEGREE PROGRAMMES IN ARCHITECTURE

Content:

1. Introduction:
 - a. Idea of Tuning
 - b. Process
 - c. Definitions
2. Participating Countries and Delegates
3. Nature of Architectural Programs of Participating Universities
4. Introduction to the Participating Programs
5. Work Plan
6. Development of Competences
 - a. Generic Competences
 - b. Specific Competences
7. Evaluation of Competences (Consultation with Stakeholders)
 - a. Evaluation of Generic Competences
 - b. Evaluation of Specific Competences
8. Development of a Meta-Profile
9. Compatibility between Tuning's Architectural META-Profile and the participating architectural programs
10. Development of Architectural Programs Based on the Architectural Meta-Profile
 - a. Development of a new program: Hashemite University, Jordan
 - b. Modification of an existing program: International University for Science and Technology, Syria

Index 1: The Architectural Program at the Hashemite University

Index 2: The Architectural Program at Mohammad 1st University

Index 3: The Architectural Program at the International University for Science and Technology

1. Introduction:

a. Idea of Tuning:

One way of insuring continuous development and improvement of university level educational programs is to periodically undertake evaluation procedures in order to pinpoint areas of strength and weakness. Such procedures open the way for well-

planned improvement strategies of educational programs. This fact is one reason why accreditation became a crucial and useful development tool of higher education institutions.

Tuning is a research project whose objective is to provide means of improvement and development for university educational programs. In this respect, Tuning does not aim to provide accreditation mechanism by which programs are evaluated; this is not the aim of the project. This fact makes one point of difference with typical accreditation systems. The second unique point to Tuning is that it does not bring to the table a set of standardized items by which a particular program is evaluated. Rather, issues of evaluation are developed and agreed upon by concerned programs. Tuning is based on the notion that each region may have its unique characteristics and specifications out of which issues of evaluation should evolve. Issues of evaluation are areas in which students should have acceptable level of knowledge or expertise; in Tuning project, they are referred to as competences.

This is why Tuning has gone through a number of experimentation in different regions of the world including China, Latin America, and Europe. Tuning Middle East and North Africa is the latest of Tuning's experimentations and focuses on four specialties: architecture, law, nursing, and tourism.

Tuning experimentation for architectural programs, to be referred to henceforth as architecture Tuning-MEDA, as well as the other three involved groups of the Middle East and North Africa benefited from earlier work in more than one way. Firstly, it follows the same ideology and methodology of Tuning developed in earlier experimentation. Secondly, it profited from the presence of experts who participated in earlier works of Tuning. These experts helped explaining the concept of Tuning and led discussions of the first meeting conducted in Jordan (Professor Constantin Spiridonidis from Aristotle University of Thessaloniki worked with the architectural group). Thirdly, architecture Tuning-MEDA used reports of earlier projects to develop its own set of competences which were used in later stages to come up with the architectural Meta-Profile; the final set of competences employed to evaluated different architectural programs.

b. Work Process:

Since Tuning as a concept does not rely on a set of given points of reference for evaluating student's performance or level of knowledge (here called competences), these competences were to be agreed upon by the experts of the particular concerned region. Therefore, Tuning evolves around a step-by-step development of its base of evaluation through constant discussions and deliberations.

Hence, the Project was built around five main meetings in which its stages were worked out and developed. Individuals involved in the meetings were delegates chosen by interested universities in the Middle East and North Africa region. The Project was planned around a number of tasks that were done individually and/or collectively during the five meetings and in between. Each task was developed, evaluated, and documented.

Each of the four areas of study followed the same procedure of work, but went through it individually. By the end of each meeting, results of the four groups were typically presented and discussed. This final general meeting was useful to validate results, fine tune them, and examine other potentials. This document presents the whole process and its results in connection with the field of architecture.

c. Definitions:

T-MEDA:	Tuning Middle East and North Africa.
SAG:	Subject Area Group, which were four in T-MEDA, architecture, law, nursing, and tourism.
Architectural SAG:	Architectural subject area group which consisted of all delegates from participating universities and worked on the Project in the area of architecture.
Competence:	What graduates will know, understand and be able to do by the time they have successfully completed their program of study.
Generic Competences:	Competences that every university graduate should acquire.
Specific Competences:	Competences related to the specialty of the student and should be acquired.
Meta-Profile list:	The agreed upon comprehensive list of competences which a graduate of a field of study should acquire; the list is a compilation and amalgamation of the general and specific competences.
Meta-Profile:	A group's representation of the structure and combination of competences that gives identity to a thematic area.

2. Participating Countries and Delegates:

Table 1 presents all countries and their delegates who participated in the project. Due to different circumstances, not all members were able to participate in all meetings; however, all participating universities were fully aware of the Project's development by sharing all information and stages of work via email.

Table 1: List of countries, universities, and delegates participating in the Project

Country	University	Delegate
Algeria	Universite Mouloud Mammeri de Tizi Ouzou	Mohand Hamizi
Cyprus	University of Cyprus	Marios C. Phocas
Egypt	Cairo University	Emad Alyeldin Abdelshafi El Sherbiny
Egypt	Suez Canal University	Ahmed Mohamed Amin Ahmed
Greece	Aristotle University of Thessaloniki	Constantin Spiridonidis
Jordan	Hashemite University	Ahmad Abidrabbu Al-Sa'ed Alhusban
Jordan	Jordan University of Science and Technology	Hussain Alzoubi
Lebanon	Beirut Arab University	Hesham Elarnaouty
Libya	University of Omar Al mukhtar	Omer R. El Zaroug
Morocco	University Mohammed First	Abderrahime Bouali
Palestine	Islamic University of Gaza	Ahmed S. Muhaisen
Syria	Arab International University	Tamer Alhajeh
Syria	International University for Science and Technology	Rafee Hakky
Syria	The Syrian Consulting Bureau for	Nabil Sukkar

	Development and Investment	
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3. Nature of Architectural Programs of Participating Universities:

The early discussions of the Architectural SAG shed a light on a rather important issue that had a clear bearing on the development of competences and the Meta-Profile. This issue was the different views about what an architectural program should teach. In more specific words, what is the main objective of architectural programs? Three main directions were found:

- Providing architectural education concentrating on the creativity aspect of architecture.
- Providing architectural education striking a balance between the creativity and engineering aspects of architecture.
- Providing architectural engineering education concentrating on the practical aspect of the building industry.

More or less, it was possible to categorize the participating architectural programs in one of these three directions. However, discussions led to an understanding that the second direction mentioned above would be the sought after architectural program which would theoretically provide appropriate knowledge to students. The delegates agreed that a graduate from an architectural school should be able to do two main tasks. Firstly, he or she should be able to provide appropriate architectural solutions through proper understanding of the problem that leads to proper design that respects human needs and the environment. Secondly, the student should be able to provide sufficient information about how his or her design can be actually built using suitable construction techniques and materials.

This general agreement kept all differences found in the actual architectural programs of the participating universities aside, leaving the floor for fresh and objective discussions about an "ideal" program of study that could be developed based on the competences to be agreed upon. Another benefit of reaching the general agreement was the elimination of the personal educational background of the delegates as an influencing factor in the development of the list of competences. Participating delegates were of one of two main backgrounds: architectural or engineering. While delegates with architectural background led the discussions, delegates with engineering background provided throughout the process full understanding, support, and advice. Having the two backgrounds working together was of great benefit to the process, for it enriched the discussions and increased its objectivity.

4. Introduction to the Participating Programs

a. Mouloud Mammeri University of Tizi-Ouzou, Algeria:

The Architectural Department of Construction Engineering Faculty of Mouloud Mammeri University (Tizi-Ouzou) provides training in academic license (3 years) and Academic Master (2 years). The number of students is 1040 students spread over five years, with 360 registered in Master M1 and M2 and 680 in License Degree (L1, L2, L3). The academic staff consists of 68 permanent teachers and 25 temporary teachers. Degree of training is 3 years of the License and 2 years of the Master.

b. Cairo University, Egypt:

The Department of Architecture (Architectural Engineering), is among the three oldest - most departments of the Faculty of Engineering, Cairo University, Egypt. It is also among (if not) the oldest departments of Architecture in Egypt and the Region (the Arab World, the Middle East and Africa). It's foundation and early stages of development date back to the Nineteenth Century.

The total undergraduate (B.Sc. in Architectural Engineering) student population generally followed the said pace in the yearly graduates; the total figures were of the order of: 38 students in (1941), 176 (1950), 210 (1960), 270 (1970), 690 (1980), 378 (1990) and 850 students in 2000. The current total of the B. Sc. Students, the academic year 2013 – 2014 is of the order of 667 students.

Throughout the period of initiation and development phases in the department, the education system has respected the course structure and program of having a common year for all enrolled students in the faculty: the preparatory year and the distribution on specializations/departments. The department of Architecture was closely linked to the school and then to the Faculty of Engineering program and tuition schedules.

Graduates of the Architectural Department; Cairo University can automatically acquire a professional practicing registration from the Syndicate of Egyptian Engineers. The architectural Department passed through several thresholds of development in the past two decades. First the educational program changed from an academic year system to adopt a two semester system in the year. Student graduates after the completion of 30hours/semester for 5 years: the first year is dedicated to general engineering studies named the preparatory year whose purpose is adjusting and normalizing the standards of all high school graduates coming from the different high school education systems. Four academic years or eight semesters cover the specialized engineering field of the graduate architects graduate after the completion of hours including the graduation project. The Architecture Department adopts a strategy of continuous processes of review and self-updating to the courses' structure and content. Many courses related to sustainable design, community based research and design; heritage conservation, urban renewal, architectural criticism, interior design, are among the continually developing topics that reflect the local needs and the international development in architecture and its related fields.

Since 2003, the program was further enhanced by introducing electives that expanded into 5 well defined streams namely: Architecture, Building Science and Technology, Environmental Design, Urban Design and Community Development, and Urban Planning. The electives' streams are clearly reflected in the postgraduate program sections (5 specializations with similar titles), orienting the students, and enabling them to understand and differentiate between general specialization. The elective courses in the architectural department allow for more involvement of the younger staff members in teaching a course independently, electives also provide the opportunity to experiment with more creative, non-conventional topic; and more exposure of students to areas directly and indirectly related to the field of architecture. Elective courses also impact the in-depth of tackling the graduation project.

c. Suez Canal University, Egypt:

Section is divided into two divisions: Division of Architecture and Planning Division and taught a student architectural design and construction and architectural theories of architecture and urban planning for cities and the history and architecture and configurations population and urban systems of modern architecture and contemporary, as student studies in this section materials such as soil mechanics and foundations, concrete, sanitary engineering buildings, and space and metal structures and resist materials and their properties and tests, and building technology.¹

d. Hashemite University, Jordan:

This department offers a B.Sc. degree in Architectural Engineering. The program is designed to qualify professionals who are competent in the methods and techniques appropriate for architectural design, restoration, supervision, and project management. Besides taking courses on Architectural Design, students are trained on applications of the latest scientific approaches in different areas such as:

Architectural Rendering and Communication, Construction Techniques, History and Theory of Architecture, Urban Design and Planning, Landscape Architecture, Physics of Architecture, Environmental Control and Cultural Heritage Protection and Restoration. Graduates of this program will be qualified to hold positions in the architectural engineering field as architects, project managers and supervisors in both the public and private sectors.²

e. Beirut Arab University, Lebanon:

The Faculty of Architectural Engineering is committed is to foster a challenging learning environment and to continually compete as well as lead advances in architectural education, in order to prepare innovative, critical and industrious graduates able to improve, through their future careers, the quality of the built environment. The student must meet the following requirements: The completion of 170 credit hours within a minimum period of 5 years (10 Semesters) and not exceeding 10 years. Within the 170 credit hours, students must fulfil: 136 credit hours for Mandatory Courses; 22 credit hours for Elective Courses; 12 credit hours for University Courses. Student must also fulfil the university requirements by earning the ICDL certificate within the first four semesters of his/her study.³

f. University Mohammed First, Morocco:

Architects conceptualize, plan and develop designs for the construction and renovation of commercial, institutional and residential buildings. The studies will be based in the studio for design work, tutorials and critiques. The student will attend lectures, computer aided design tutorials, has essays to write, site visits to go on and visits to buildings and places of interest and work in internships. The candidates have to follow training course (traineeship 3x 1 month) that exposes them to architect work. These traineeships provide opportunities for hands-on building projects; others offer specialist areas of study or have developed strengths in particular disciplines such as: sustainability, town planning, technology, or management. Skills in problem solving and team working are also developed through internship program.

¹ http://eng.scuegypt.edu.eg/?page=pages&page_id=149

² http://hu.edu.jo/fac/dept/charmen_message.aspx

³ <http://www.bau.edu.lb/Undergraduate-Studies1>

In order to receive the "Diploma of architecture" the candidate must prepare a final project during one year. Then, He must present his project to a jury composed of practicing architects and lecturers.

g. Islamic University of Gaza, Palestine:

Islamic University of Gaza (IUG) was founded in 1978, as an independent academic institution supervised by the Palestinian Ministry of Higher Education. It includes 11 faculties, in addition to many other research and community centres. The Engineering Faculty at IUG was established in 1992, with the aim of developing the engineering expertise of the Palestinian community and building tight relations with local and regional entities working in the various fields of engineering. As part of the Engineering Faculty, the Architecture Department, seeks to develop the built environments and be part of the active institutions working for a better life. The department offers BSc and MSc degrees in Architecture, and considered the best in the Gaza strip.

h. Arab International University, Syria:

The mission of the Faculty of Architecture at the AIU is to prepare future architects capable of creative action and critical thinking. The Faculty's graduates are skilful designers who are equipped with a high level of environmental awareness and a deep sense of social responsibility.

They are professionally trained to understand architecture in its traditional and modern settings as well as its global and local conditions. Their historical and theoretical knowledge orient them to be sensitive to the architectural and urban identity of the environment in which they operate, and to have a profound sense of belonging that enable them to comprehend the human aspect of architectural production in all of its beauty, complexity and challenges.⁴

i. International University for Science and Technology, Syria:

The Architectural Engineering program is intended to develop students' understanding of the essential interaction between the environment, heritage and human factors, and to relate them to design practices and processes. In addition, the program will enable students to develop an appreciation of global and local architecture, as well as urban planning and design. It also deepens their social awareness and environmental consciousness for the utilization and conservation of natural resources.

Graduates of the program will acquire knowledge, practice and design capabilities in the following areas: architectural design, structures, construction engineering and management, and environmental control systems. In addition, graduates will have an understanding of global and local architecture, as well as urban planning and design.⁵

5. Work Plan:

The Project went through a number of stages that can be summarized as follows:

⁴ <http://www.aiu.edu.sy/en/College24>

⁵ http://iust.edu.sy/Arch_vision.aspx

- a. First Meeting, May 2-5, 2014, Dead Sea, Jordan:
 1. Delegates of the four subject area groups (SAG) (architecture, law, nursing, and tourism) were introduced to the project, its goals, and its methodology.
 2. The four-subject area groups (SAG) met individually and formulated two sets of competences; general and specific competences.
 3. Coordinators of the four groups developed one set of general competences.
- b. In-term Period:
 1. Competences were evaluated through a questionnaire administered in all participating universities.
 2. Results of questionnaires were analysed by the International Tuning Academy in Bilbao.
- c. Second Meeting, September 27 – October 2, 2014, Bilbao, Spain:
 1. Results of the questionnaires were presented and discussed.
 2. Each of the four subject groups developed its own Meta-Profile.
- d. In-term Period:
 1. Meta-Profile was compared with actual program of study for participating universities.
 2. A draft of subject area report was formulated.
- e. Third Meeting, February 14-19, 2015, Larnaca, Cyprus:
 1. Results of comparing programs with the Meta-Profile were discussed
 2. One program of study (the architectural program of the International University for Science and Technology) was chosen to be developed to better respond to the Meta-Profile.
- f. In-term Period:
 1. A second draft of the Subject Area Report was written
 2. Programs of study were further developed to better match the Meta-Profile
- g. Fourth Meeting, September 26 – October 1, 2015, Malta:
 1. Discussion of proposed programs in light of the Arch. Meta-Profile
 2. Discussion of student work load
- h. In-term Period
 1. Implementation of student work load questionnaire
 2. Analysis of student work load questionnaire results
 3. Finalization of reports
- i. Fifth Meeting

6. Development of Competences:

The first main task to be achieved by the delegates was the development of a list of competences that every graduate of an architecture program should attain. A competence according to Tuning “is a broad concept that represents a dynamic combination of:

- a. Knowledge and understanding at different levels
- b. Skills and abilities

c. Attitudes and values”⁶

Students acquire competences related to their field of study through the different courses offered in their program. A particular competence can be acquired in different courses, in like manner; courses can offer a number of competences.

According to instructions provided by the organization of the Project, Every subject area group was asked to develop two lists of competences. The first was called the generic list of competences that are competences that should be obtained by every university graduate, and the second was called the specific list of competences; these are competences related to the particular field of study. Students are expected to acquire all these competences in order to achieve acceptable proficiency in their field of study.

In order to come up with a meaningful list of competences, Architectural SAG based its work on different lists of competences developed in earlier Tuning projects. Available competences were discussed, modified, grouped, and reformulated in order to reach two special lists of competences geared towards educational objectives suitable for Middle Eastern and North African architectural programs. One list was for generic competences and the other for the specific ones.

a. Generic Competences

Generic competences list was then compared, contrasted, and amalgamated with three more generic competences lists developed by the other three SAG’s, law, nursing, and tourism. The resulted list was approved by all delegates and considered final. This list is presented in table 2:

**Table 2: List of generic competences:
Graduate should have the ability to**

1. manage time effectively
2. communicate orally and in writing with different audiences
3. maintain continuous education
4. have critical thinking, analysis and synthesis
5. identify and resolve problems
6. make logical decisions
7. work in an interdisciplinary team
8. lead effectively
9. work autonomously
10. maintain quality of work
11. act ethically with social responsibility
12. apply knowledge in practical situations
13. communicate in a second language
14. be innovative and creative
15. be flexible and adapt to different situations.
16. empower others

⁶ Pablo Beneitone, “From consulting to profiling: some examples of Meta-Profiles”, Tuning Middle East and North Africa T-MEDA Second General Meeting, Bilbao, 29th September 2014

17. search for information from a variety of sources

Graduate should be committed to

18. the protection and preservation of the environment
19. human rights
20. health and safety procedures
21. the preservation of cultural heritage and values

Graduate should have

22. organizational skills
23. sense of dedication
24. respect for diversity and multiculturalism
25. skills in the use of information and communication technologies

Graduate should be

26. initiative
27. self-motivated
28. assertive

It is worth mentioning that the four participating groups (architecture, law, nursing, and tourism) had in general relatively similar lists of generic competences. This could be because all were relatively based on, or benefited strongly from earlier generic lists of competences shared by all groups. Furthermore and as mentioned earlier, the process through which the generic competences were reached was as follows: first, separate discussions of each group took place in three sessions for one and a half day. During these sessions, the body of the list was formulated, discussed, and modified. Second, a special meeting among the four coordinators of the groups was held in which the four lists generated by the groups were worked out together formulating one list that was agreed upon by the four coordinators and include all competences deemed necessary by all for a good college education. Subsequently, the list was presented in front of delegates of all four groups for discussion or suggestions. This led to reaching the final list of generic competences.

This lengthy process benefited the development of the list in a number of ways:

1. It aided the process, validated the results, and saved time through the utilization of earlier lists of competences developed in earlier Tuning projects.
2. It insured that listed competences were appropriate to Middle Eastern and North African college education through the different opportunities of discussion and modification.
3. It insured that listed competences were appropriate at least for the four involved areas of study (architecture, law, nursing, and tourism), again due to the number of reviews and discussions administered by the coordinators and members of all groups.
4. Since this list of generic competences was formulated by academicians of very different backgrounds looking for general qualities and capabilities of a university graduate, it could be suggested that the list would be acceptable in other fields.

b. Specific Competencies:

Delegates developed a set of specific competences related to the field of architecture that covers its major areas. A balance between the creative design aspect on one side and the engineering aspect on the other was consciously observed to allow students to obtain appropriate knowledge in the two main areas of the profession. Supporting areas that were included were history and theory, communication in all its aspects, and environmental and social concerns.

Discussions emphasized a number of issues to be of high importance. These included environmental issues; new technologies, construction techniques, and materials; accommodation of individuals with varying physical abilities, local architectural heritage and construction techniques, and contemporary architectural thought.

The final list, therefore, came out to be well balanced in a number of ways such as, firstly being general enough to include all participating programs, yet specific to the conditions of the region. Secondly, it considered contemporary trends of architectural practice in terms of theory and construction, at the same time it respected the history and heritage of the region. Thirdly, the list balanced the technical and artistic aspects of architecture; and fourthly, it emphasized two important concerns of present architectural practice; namely, social issues and sustainability. The list of specific competences is presented in table 3.

Table 3: List of specific competences:

1. Appreciation of the social and cultural role of Architecture.
2. Ability to design buildings and/or urban development projects that blend with the surrounding environment and fully satisfy local human, social and cultural requirements at different levels and complexity.
3. Skill in formulating creative and innovative ideas and transforming them into architectural creations and urban planning.
4. Knowledge of history and theory of Architecture and related human sciences and engineering.
5. Awareness of current architectural ideas and practices at local and global levels.
6. Understanding of the ethical issues involved in architectural design and practice.
7. Awareness that investigation and research are essential components of architectural creations.
8. Awareness of the continuous changes of architectural ideas and practices.
9. Ability to think, perceive and conceive spaces three dimensionally in different scales.
10. Skill in reconciling all the factors involved in architectural design and urban development.
11. Mastery of the media and tools used for communicating verbally, in writing and/or volumetrically architectural and urban development ideas and designs.
12. Ability to evaluate, enhance and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments.
13. Ability to work within, or lead constructively interdisciplinary teams.
14. Knowledge of aesthetics and arts, and understanding their role as key factors in the quality of architectural thinking and design.
15. Capacity to design projects assuring environmental, social, cultural and economic sustainability.

16. Ability to conceive and integrate structural, construction, environmental and installation systems to architectural designs.
17. Ability to design buildings to accommodate individuals with varying physical abilities.
18. Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession.
19. Capacity to produce comprehensive construction documents.
20. Capacity for planning, programming, budgeting and managing architectural projects.
21. Awareness of methods of execution practiced in architectural projects.
22. Ability to develop site plans and landscape designs.
23. Understanding the importance of, and ability to incorporate new and renewable energy sources in building design.
24. Understanding of the basic principles and appropriate application of construction materials including local ones.
25. Awareness of the importance of client's role in the design process.
26. Ability to analyse and incorporate relevant precedents into architectural design projects.

7. Evaluation of Competences (Consultation with Stakeholders):

The two lists of competences were developed by a very small group of academicians who were not more than fifteen. In order to validate the two lists, a number of concerned individuals, to be referred to as stakeholders, were asked to evaluate the importance of every item on the two lists. At the same time, they were asked to evaluate the level of achieving that particular competence in their own institution. They were also asked to rank the five most important competences to them.

Analysing the data collected was useful to provide information about the rating of each competence, which is found by calculating the means for each competence on a scale chosen to be from 1 to 4. Getting a high score (meaning 3 and above) in importance means that the competence is considered very important. While getting a high score in achievement means the competence is well achieved by the academic program. Rating was done in terms of importance and achievement. Ranking was done on a scale from 1 to 5, where 5 is given to a competence that was ranked as first and 1 to a competence that was ranked fifth. A competence that was not ranked among the first five is given the value 0. Hence, theoretically, a competence, which got 5 points, would be one that was chosen as the first competence by all participants. On the other hand, if a competence was never chosen by any one of the participants would get a zero score.

Stakeholders who were consulted were presented with the two lists in a questionnaire format by which they were able to rank importance and achievement in a prepared table, and then were asked to list the five most important competences for ranking. Stakeholders for the Project belonged to four groups: academicians, employers, students, and recent graduates.

Each university of the four different SAG's was asked to question 30 individuals from each of the above-mentioned four groups. Total respondents of the architecture group who answered the generic competences were 694 respondents, while those who answered the specific competences were 562 respondents. Difference in numbers was most probably due to the fact that the two lists were sent separately to participants; some of them answered one and ignored the second. Table 4 presents the details of respondents for both generic and specific competences.

Table 4: Number of respondents of the four groups of stakeholders

Competences	Academicians	Employers	Students	Graduates	Total
Generic	172	124	237	161	694
Specific	137	112	190	123	562

Table 5 summarizes the distribution of participants according to country. Although there are clear differences in the number of participants in some countries, it is possible to say that there is a sort of balance between the main two areas studied: the Middle East and North Africa. In the case of generic competencies, Middle Eastern countries (Jordan, Lebanon, Palestine, and Syria) have 359 participants, while North African countries (Algeria, Egypt, Libya, and Tunisia) have 335 participants. As for the specific competencies, the Middle Eastern countries have 258 participants and the North African countries 304 participants. Thus, the results can be assumed to be representative of both areas.

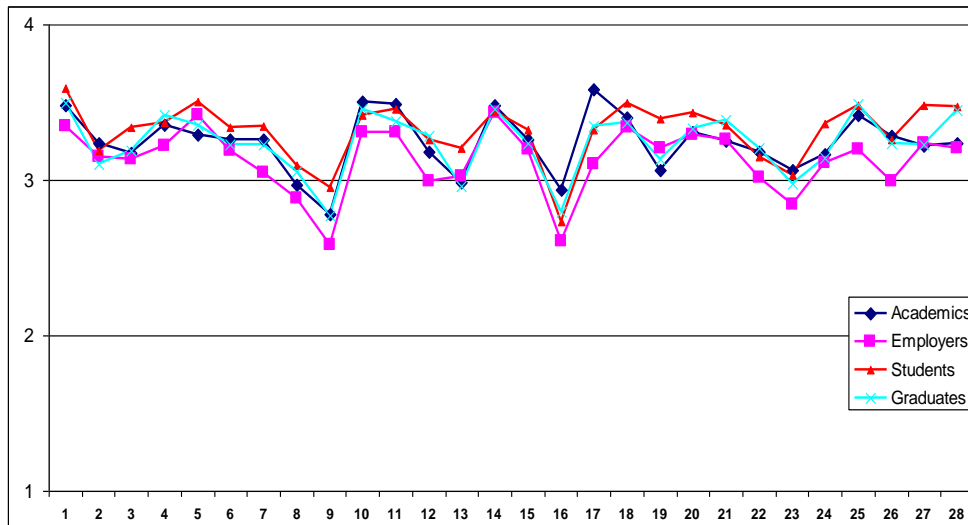
Table 5: Distribution of participants according to country

Competences	Algeria	Egypt	Jordan	Lebanon	Libya	Syria	Palestine	Total
Generic	119	96	53	38	120	200	68	694
Specific	119	63	46	16	122	180	16	562

a. Evaluation of Generic Competences:

Graph 1 shows results in connection with the importance of the proposed generic competences as seen by the four architectural groups. A number of points can be observed. Firstly, the graph exhibits clearly that most competences are rated over 3; this is a strong indication that competences generated by the architecture SAG were appropriate.

Only four competences out of 28 ones got a score lower than 3 points; these were: (8) lead effectively; (9) work autonomously; (16) empower others; and (23) sense of dedication. Out of the four, two have lower score than 3 by all four groups: (9) lead effectively, and (16) empower others. Moreover, all four competences are related to personality; (9) and (16) are more in the area of leadership. Hence, it might be a culture thing that personal issues and in particular issues related to leadership are not of great value to the working force. This may tell something about the culture more than about the validity of the competences developed by the Architecture SAG.



Graph 1: Rating of importance of generic competences by the Four Groups

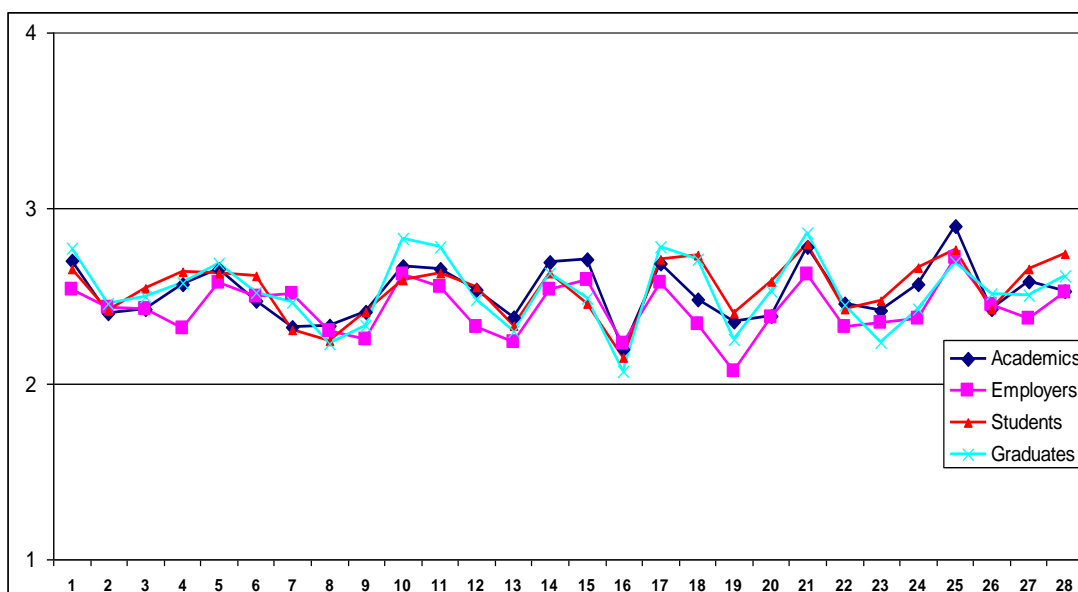
Another worth mentioning observation is the fact that employers have the lowest rating of the four groups. This is surprising in a way because one would have imagined employers would require higher standards than other groups. It is comforting, however, to see that employers rated competences related to creativity, time management, quality of work, and protection of the environment the highest.

Finally, correlation among the four groups is very high. Table 5 shows that the lowest correlation is between academicians and students at 0.7434, which is relatively high. Interestingly enough, correlation reaches 0.9211 between students and employers. This high correlation among the four groups emphasizes the validity of the developed list of competences.

Table 5: Correlations among groups in terms of generic competences' importance

	Academics	Employers	Students	Graduates
Academics	1.0000			
Employers	0.7816	1.0000		
Students	0.7434	0.9211	1.0000	
Graduates	0.8864	0.8585	0.8723	1.0000

As for achievement, all four groups rated all competences between 2 and 3. In other words, achievement was seen by all as not satisfactory enough (graph 2). Nevertheless, rating results are not alarming since they are not very low, but fall in a middle range. Here too employers have the lowest ratings.



Graph 2: Rating of achievement of generic competences by the Four Groups

But correlation among all groups is also very high; but differences are higher here if compared with those found in rating of importance (table 6). It is worth mentioning here that the strong correlation between students and employers which was evident in terms of importance does not exist here. In fact correlation between these two groups in connection with achievement is the lowest among all other groups. This can be explained by the fact that students' expectations would be much less than employers since the former is new to the profession while the latter value quality very highly.

Table 6: Correlations among groups in terms of generic competences' achievement

	Academics	Employers	Students	Graduates
Academics	1.0000			
Employers	0.7743	1.0000		
Students	0.7860	0.5801	1.0000	
Graduates	0.8013	0.7819	0.8205	1.0000

Ranking of the generic competences also shows consistency among the four groups of stakeholders. In the first five ranks, only seven competences can be seen. This indicates repetition of the same competences in all groups, a fact which strengthens the validity of the ranking itself through the high correlation among all groups. The seven competences found in the first five ranks are listed in table 7 from the highest rank to the lowest.

Table 7: The five highest ranking generic competences

Rank	Academics	Employers	Students	Graduates
1	1	1	1	1
2	14	4	4	4
3	4	5	5	5
4	5	6	14	14
5	10	3	3	10

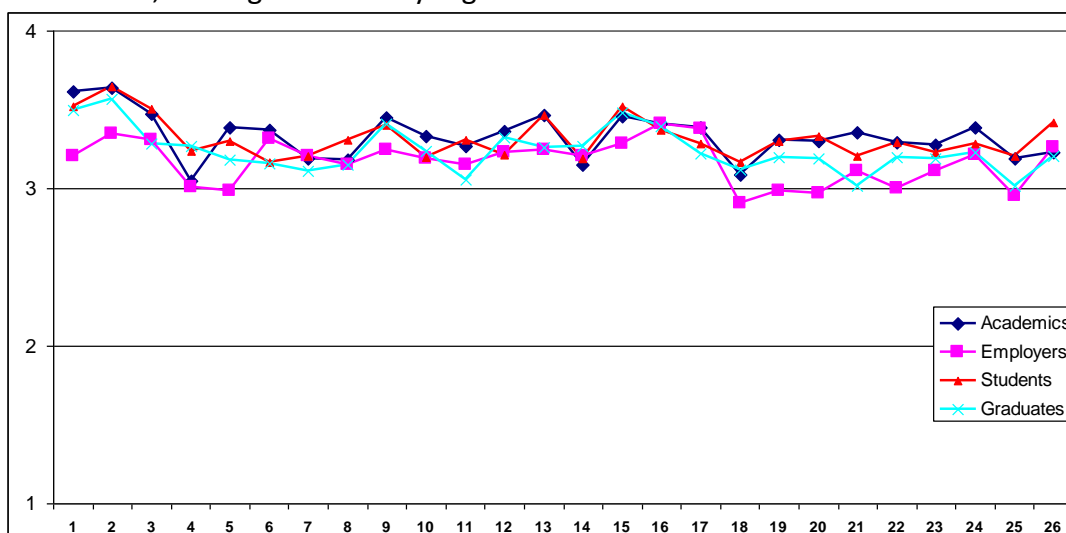
The highest ranking competences were (1) manage time effectively, (4) have critical thinking, analysis and synthesis, and (5) identify and resolve problems. In a bit lower ranking came:

(14) be innovative and creative, (3) maintain continuous education, (10) maintain quality of work, and (6) make logical decisions. These competences reflect a number of important issues: firstly, stakeholders are in agreement on the importance of time, hard work, and critical and creative thinking as qualities to be present in any architect. Secondly, emphasizing these points in particular is a cultural statement; although they might be relatively missing, and that was why stakeholders were pushing them, but the society, represented in the stakeholders here, is aware of the importance of these particular qualities and demanding them. Architectural program should take these qualities very seriously even though they are not related to a specific trade or particular area in the field of architecture.

b. Evaluation of Specific Competences:

Graph 3 presents similar points to those observed in the generic competences. All competences were considered of high importance. Except for five; all competences obtained a value of three or above. The five competences which were rated just below three were: (19) capacity to produce comprehensive construction documents, (5) awareness of current architectural ideas and practices at local and global levels, (20) capacity for planning, programming, budgeting and managing architectural projects, (25) awareness of the importance of client's role in the design process, and (18) knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession.

Firstly, it is noticed that these five competences were rated below 3 only by employers. The other three groups rated them above 3; in fact, competences (5), (19), and (20) were rated relatively high by the three other groups putting them with the lowest correlation between the three groups and employers. Secondly, the ratings given by employers for these competences were just below 3; they all ranged between 2.98 and 2.91. This makes the difference not of true importance. And thirdly, also noticeable is that all five competences were related to very high professional areas in the practice of architecture: development of construction documents, awareness of current practices, planning and budgeting of projects, client's role, and legal and safety regulations.



Graph 3: Rating of importance of specific competences by the Four Groups

This can be seen as an indication of a realistic view on the part of the professionals in connection with what architectural education can and cannot offer. It is obvious that these advanced professional activities can be learned only in practice and not in school. Looking at the five highest rated competences by employers confirm this point. Employers saw the

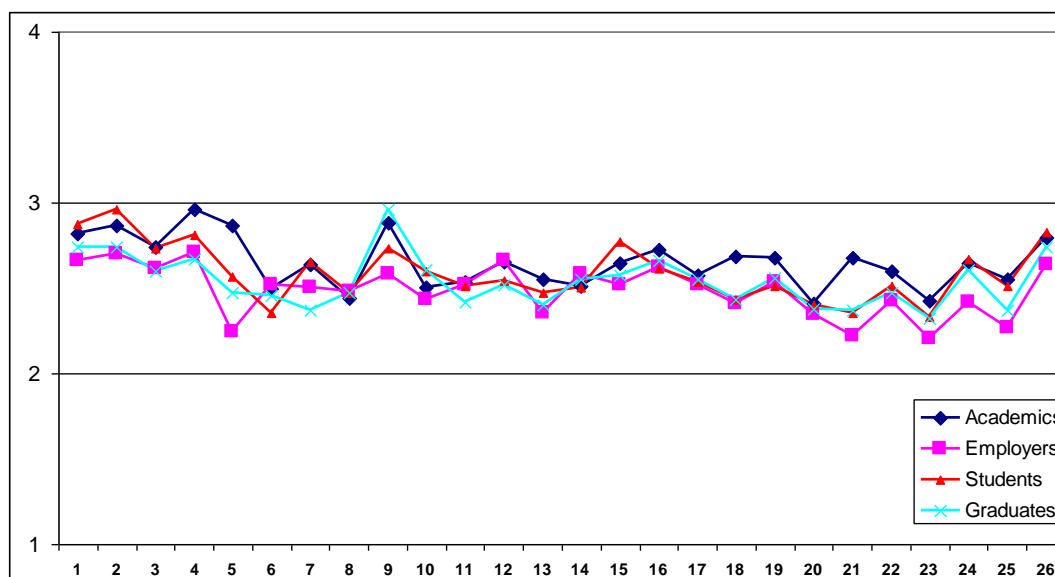
ability to conceptually integrate design with different technical and structural systems as the most valuable trade. This is followed by the ability to design for individuals with special needs, the ability to work with the social and environmental conditions of the project, respect of ethical issues related to the profession, and being creative in finding solutions and transforming them to architectural forms. All five competences are related to conceptual thinking and professional sensitivity; they do not address issues directly related to professional practice.

Correlation among the four groups is not as high as it is in the case of the generic competences; the gap here is much clearer. As mentioned earlier the main difference exists between the employers and the other three groups; employers' ratings are always lower than those of the other groups. Perhaps the main reason for such a gap is the professional belief that architecture can only be learned in practice. Therefore, professionals' expectations from education are much lower. Correlations among the other three groups are higher averaging about 0.7; a relatively high level of correlation, especially when one realizes that architecture is one of the professional fields which do not have clear cut definition or agreed upon dimensions. Hence, opinions about architecture and its systems of education can be very diverse.

Table 8: Correlations among groups in terms of specific competences' importance

	Academics	Employers	Students	Graduates
Academics	1.0000			
Employers	0.5697	1.0000		
Students	0.7420	0.4530	1.0000	
Graduates	0.6658	0.5446	0.7408	1.0000

All four groups agreed that achievement of the competences is much lower than their importance. Yet, the all seemed to locate achievement still above average; between values 2 and 3 (graph 4). It is interesting to note that the gap between importance and achievement is smallest in four competences which are (4) Knowledge of history and theory of Architecture and related human sciences and engineering, (5) awareness of current architectural ideas and practices at local and global levels, (7) awareness that investigation and research are essential components of architectural creations, and (18) knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession.



Graph 4: Rating of achievement of specific competences by the Four Groups

The small gap between importance and achievement is actually a result of the fact that these four competences were ranked low in importance. The average rating of knowledge of history was 3.14, awareness of current architectural trends was 3.21, importance of research was 3.18, and ability to work with legal and safety regulations was 3.07. But more importantly, basically three of these competences deal with theoretical issues; the fourth can be seen as a limited item of the professional practice. They are not seen as very important competences and thus whatever is offered by the educational program is seen relatively adequate.

Correlations among groups in relation to achievement of the specific competences are not very strong in comparison with those found in achievement of the generic competences. The highest correlation happens between students and graduates. This seems logical since graduates can almost be considered students being just freshly graduated from school.

Table 9: Correlations among groups in terms of specific competences' achievement

	Academics	Employers	Students	Graduates
Academics	1.0000			
Employers	0.4826	1.0000		
Students	0.7417	0.6957	1.0000	
Graduates	0.6848	0.7094	0.7768	1.0000

Employers and academics show the lowest level of correlation. This is to say that they have relatively very different opinions when it comes to achievement of the specific competences. Being the party which provides education, academics naturally believe they are providing sufficient education that is allowing students to reach a high level of competency in many areas of the profession. On the other hand, typically professionals feel that freshly graduating architects did not acquire enough to be ready for practice.

Ranking of the competences by the stakeholders shows clear consistency in opinions. Three of the five highest competences were selected by all groups: (1) appreciation of the social and cultural role of architecture, (3) skill I formulating creative and innovative ideas and transforming them into architectural creations and urban planning, and (4) knowledge of history and theory of architecture and related human sciences and engineering. As for rating, there is one competence shared by all four: (2) ability to design buildings and/or urban

development projects that blend with the surrounding environment and fully satisfy local human, social and cultural requirements at different levels and complexity.

It is remarkable to see that the four most emphasized competences deal with the current critical issues of architectural practice: social and cultural issues, history and current theory of architecture, environment concerns, and current technical and engineering capabilities. Such agreement on the above mentioned issues indicates a high level of awareness by those involved in the practice of architecture in the region. This is a promising step towards future improvement in these areas even though architecture practice lacks them today.

Other highly rated competences emphasize the same ideas in one way or another. They include issue related to ethics, ability to reconcile all factors involved in the practice for the benefit of the work of architecture, knowledge of arts and aesthetics, and integrating structural and technical issues.

Table 10: The five highest ranking specific competences

Rank	Academics	Employers	Students	Graduates
1	1	1	1	1
2	3	3	3	3
3	4	4	4	6
4	14	16	2	10
5	2	10	5	4

It appears that generic and specific competences which are ranked the highest complement each other. The highest generic competences emphasize good practice habits, logical and critical thinking, and working on identifying and resolving problems. These qualities will help graduates think about architecture in objective and logical ways leading them to deal with issues of concern to today's practice such as social and cultural issues, sustainability, and new technologies. The fact that stakeholders focused on two sets of important competences that complement each other is indicative of a clear current professional orientation that is backed up with an understanding of the personal qualities needed for it.

8. Development of a Meta-Profile

According to Tuning Academy, a meta-profile "is a group's representation of the structure and combination of competences which gives identity to a thematic area."⁷ A meta-profile is formed through a process of combining the generic and specific competences to form a new set that represents all the competences needed to produce a well qualified graduate in a particular field. A main difference between a set of competences and a meta-profile is that although the meta-profile is based on the basic lists of competences, it is categorized under main headings that formulate the main areas or orientations needed for the profession.

In order to formulate the architectural meta-profile, the following procedure was followed:

- Put competences in groups to formulate a base for the main structure of the meta-profile.

⁷ Pablo Beneitone, "From consulting to profiling: some examples of Meta-Profiles," Tuning Middle East and North Africa T-MEDA, Second General Meeting, Bilbao, 29th September 2014

- b. Combine, modify, and eliminate competences based on in depth evaluation of the competences to eliminate repetitions and reach more coherent representation of the competences.
- c. Merge competences from both generic and specific lists to reach one coherent and focused new list that is catered for architectural education.
- d. Evaluate competences based on results of the questionnaire. This evaluation was the base for taking decision related to point b.
- e. Reach a final structure of grouping that includes all agreed upon competences.

Evaluation of the questionnaire's results led to a number of points that can be summarized here:

- a. Results of all four groups were relatively close as presented in the previous discussion of the generic and specific lists of competences.
- b. Almost all competences were considered of high importance; all competences were rated over 3. Therefore, eliminating competences was not an easy task. Instead, combining competences was the strategy to go with.
- c. Achievement was considerably below importance, but this was not taken to mean that competences were not important. It simply meant that more effort should be exerted to achieve the competences.
- d. Ranking was helpful to eliminate a limited number of competences which were found to have very low ranking.

In order to produce the meta-profile, the following steps were adopted:

- a. Formulating main groups of competences: Related competences from both lists, generic and specific, were combined in groups and given titles. The groups reflect the main issues or schemes to be emphasized in architectural education. These groups are closely tied with the main concerns of today's practice related to proper design that is based on sensitivity to socio-cultural and environmental issues, proper utilization of contemporary construction technology and materials, and refined professional practice. Five groups were reached:
 1. Design abilities
 2. Construction and Technological Abilities
 3. Theoretical Background and Socio-cultural Values
 4. Professional Practice and Work Ethics
 5. Personal Characteristics
- b. Distributing competences in the matching group. This step meant regrouping and at times renaming of the groups until the final groups were reached.
- c. Testing and reevaluating the grouping: After the first distribution of competences, an overall view of the results led to some modifications in terms of grouping and competences included in every group.
- d. Finalizing first draft: At this step, some competences were eliminated based on the results of the questionnaire in terms of importance and ranking.

- e. Matching and combining competences: Competences from both lists were combined forming the meta-profile. The meta-profile consisted of the five groups; each group includes a number of competences which combine all relevant competences from both lists, generic and specific (table 11).

The final list of competences forms the Architectural META-Profile. It embodies all the concepts, ideas, skills, and abilities which a graduate of an architectural program in the Middle East is supposed to capture or master.

Table 11: The Architectural Meta-Profile

META-PROFILE		Specific Competencies	Generic Competencies
DESIGN ABILITIES			
1	Ability to design buildings, sites, and/or urban development projects in a sustainable manner (socially, culturally, economically, environmentally)	2. Ability to design buildings and/or urban development projects that blend with the surrounding environment and fully satisfy local human, social...	
		15. Capacity to design projects assuring environmental, social, cultural and economic sustainability.	
		22. Ability to develop site plans and landscape designs.	
		25. Awareness of the importance of client's role in the design process.	
2	Ability to think, perceive and conceive spaces three dimensionally and communicate verbally, in writing, graphically, and/or volumetrically.	9. Ability to think, perceive and conceive spaces three dimensionally in different scales.	2. Communicate orally and in writing with different audiences
		11. Mastery of the media and tools used for communicating verbally, in writing and/or volumetrically...	25. Skills in the use of information and communication technologies

3	Skill in formulating creative and innovative ideas and transforming them into architectural creations and urban planning.	3. Skill in formulating creative and innovative ideas and transforming them into architectural creations and urban planning.	14. Be innovative and creative
		10. Skill in reconciling all the factors involved in architectural design and urban development.	
4	Ability to design buildings to accommodate individuals with varying physical abilities.	17. Ability to design buildings to accommodate individuals with varying physical abilities.	
5	Ability to analyze and incorporate relevant precedents into architectural design projects.	26. Ability to analyze and incorporate relevant precedents into architectural design projects.	17. Search for information from a variety of sources

CONSTRUCTION AND TECHNOLOGICAL ABILITIES

1	Ability to conceive and integrate structural, construction, renewable energy systems, and environmental and installation systems to architectural designs.	16. Ability to conceive and integrate structural, construction, environmental and installation systems to architectural designs.	
		23. Understanding the importance of, and ability to incorporate new and renewable energy sources in building design.	
2	Capacity to produce comprehensive construction documents.	19. Capacity to produce comprehensive construction documents.	

3	Awareness of methods of execution practiced in architectural projects.	21. Awareness of methods of execution practiced in architectural projects.	
4	Understanding of the basic principles and appropriate application of construction materials including local ones.	24. Understanding of the basic principles and appropriate application of construction materials including local ones.	

THEORETICAL BACKGROUND AND SOCIO-CULTURAL VALUES

1	Appreciation of the social and cultural role of Architecture.	1. Appreciation of the social and cultural role of Architecture.	
2	Knowledge of history and theory of Architecture and related human sciences and engineering.	4. Knowledge of history and theory of Architecture and related human sciences and engineering.	
3	Awareness of current architectural ideas and practices at local and global levels.	5. Awareness of current architectural ideas and practices at local and global levels.	
		8. Awareness of the continuous changes of architectural ideas and practices.	
4	Ability to conduct investigation and research in the process of architectural innovation.	7. Awareness that investigation and research are essential components of architectural creations.	12. Apply knowledge in practical situations

5	Have critical thinking, analysis and synthesis		4. Have critical thinking, analysis and synthesis
			5. Identify and resolve problems

			6. Make logical decisions
6	Ability to evaluate, enhance and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments.	12. Ability to evaluate, enhance and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments.	21. The preservation of cultural heritage and values
7	Knowledge of aesthetics and arts, and understanding their role as key factors in the quality of architectural thinking and design.	14. Knowledge of aesthetics and arts, and understanding their role as key factors in the quality of architectural thinking and design.	

PROFESSIONAL PRACTICE AND WORK ETHICS

1	Act ethically pertaining issues related to architectural design and practice.	6. Understanding of the ethical issues involved in architectural design and practice.	11. Act ethically with social responsibility
2	Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession.	18. Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession.	20. Health and safety procedures
3	Capacity for planning, programming, budgeting and managing architectural projects.	20. Capacity for planning, programming, budgeting and managing architectural projects.	

4	Maintain quality of work		10. Maintain quality of work
5	The protection and preservation of the environment		18. The protection and preservation of the environment
6	Respect for diversity and multiculturalism		19. Human rights

			24. Respect for diversity and multiculturalism
7	Maintain continuous education		3. Maintain continuous education

PERSONAL CHARACTERISTICS

1	Ability to work within, or lead constructively interdisciplinary teams.	13. Ability to work within, or lead constructively interdisciplinary teams.	7. Work in an interdisciplinary team
			8. Lead effectively
			16. Empower others
2	Communicate in a second language	13. Communicate in a second language	
3	Demonstrate organizational skills		18. Demonstrate organizational skills
			1. Manage time effectively
4	Possess a high level of interpersonal skills		15. Be flexible and adapt to different situations.
			9. Work autonomously
			23. Have a sense of dedication
			26. Can take initiatives
			27. Self-motivated
			28. Assertive

The Architectural META-Profile is summarized in the following diagram where the overall concept of the profile is based on the premise that architecture is to be ethically based to observe social, cultural, and environmental concerns while developing structurally and aesthetically appropriate buildings benefiting from contemporary technologies, materials, and thought.

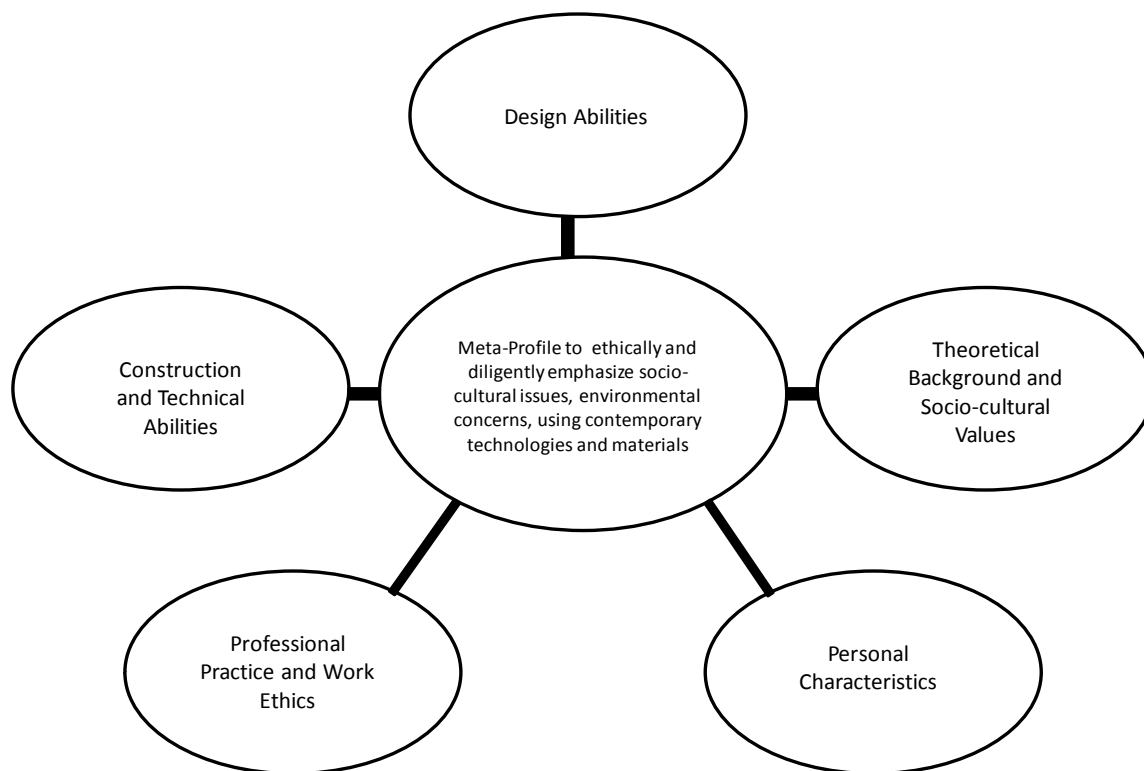


Fig. 1: Tuning's Architectural Meta-Profile

9. Compatibility between Tuning's Architectural META-Profile and the participating architectural programs

As mentioned earlier, the META-Profile was developed based on views and opinions of four groups of stakeholders: students, graduates, academicians, and professionals. This Profile reflects an ideal view of what architectural education should offer. The important following step was to evaluate the degree of compatibility between this Profile and the existing architectural programs. This comparison allowed each university the chance to observe the points of similarities and points of differences between its architectural program and the Profile; and accordingly, it could develop its program to match the Profile, come close to it, or just benefit from it in certain regards.

Hence, the participating members of the Architectural group evaluated their programs against the Architectural META-Profile. Individual reports of each program can be found in the appendices. Discussion of the programs in relation to the Profile took different shapes. Some universities based their evaluations on the specific and generic competencies, others looked at the final list of competencies which formed the META-Profile, and some gave general statements summarizing their views about the issue at hand. A summary of each program's findings is provided here.

Mouloud Mammeri University of Tizi-Ouzou:

It was found that a high level of compatibility exists between the META-Profile and the program since it covers the majority of competencies. However, some competencies were not covered. Of the specific competencies, the Program did not sufficiently address the following:

- a. Awareness of the importance of client's role in the design process (comp. 25)
- b. Mastery of the media and tools used for communicating verbally, in writing and/or volumetrically (comp. 11)
- c. Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession (comp. 18)
- d. Knowledge of aesthetics and arts, and understanding their role as key factors in the quality of architectural thinking and design (comp. 14)
- e. Understanding the importance of, and ability to incorporate new and renewable energy sources in building design (comp. 23)

As for the generic competencies, the program identified the following ones to be needed:

- a. The preservation of cultural heritage and values (comp. 21)
- b. Health and safety procedures (comp. 20)
- c. Act ethically with social responsibility (comp. 11)
- d. Self-motivated (comp. 27)
- e. Human rights (comp. 19)

Cairo University

The Program at Cairo University seems to cover very well competencies related to Design Abilities and Construction and Technological Abilities. It covers the other three groups of competencies to a lesser degree.

More specifically, the following competencies of the Profile are not addressed:

- a. Ability to design buildings to accommodate individuals with varying physical abilities (design comp. 4)
- b. Appreciation of the social and cultural role of architecture (theory comp. 1)
- c. Ability to conduct investigation and research in the process of architectural innovation (theory comp. 4)
- d. Capacity for planning, programming, budgeting and managing architectural projects (professional comp. 3)
- e. Respect for diversity and multiculturalism (professional comp. 6)
- f. Maintain continuous education (professional comp. 7)
- g. Communicate in a second language (personal comp. 2)

While the following competencies are not well addressed:

- a. Awareness of current architectural ideas and practices at local and global levels (theory comp. 3)
- b. Have critical thinking, analysis and synthesis (theory comp. 5)
- c. Act ethically pertaining issues related to architectural design and practice (professional comp. 1)
- d. Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession (professional comp. 2)
- e. The protection and preservation of the environment (professional comp. 5)
- f. Possess a high level of interpersonal skills (personal comp. 4)

Suez Canal University

The Program at Suez Canal University seems to sufficiently address all competencies of the Profile except two:

- a. Maintain continuous education (professional comp. 7)
- b. Possess a high level of interpersonal skills (personal comp. 4)

Hashemite University

All competencies of the Profile are addressed in the courses of the Program at the Hashemite University.

Beirut Arab University

All competencies of the Profile are addressed in the courses of the Program at the Beirut Arab University.

University Mohammed First

An overall evaluation of the Program at University Mohammed First showed that competencies of the Profile are addressed since the Program tackles all five groups of competencies. Nevertheless, because of the nature of the Program which is more practical and engineering oriented, it seemed that even though competencies are included but they are not sufficiently addressed. The University is working on developing a new architectural program which better addresses the META-Profile competencies.

Islamic University of Gaza

The divergence between the META-Profile and the architectural program at the Islamic University of Gaza does not exceed 20 to 30%; compatibility may reach 80%. Lack of some competencies may be a result of the difficult circumstances under which the University and its Program operate. Main competencies which are not well addressed in the program are:

- a. The integration of renewable and environmental systems into buildings (construction comp. 1)
- b. Producing comprehensive construction documents (construction comp. 2)
- c. The capacity for planning, programming, budgeting and managing architectural projects
- d. Communicating in a second language (personal comp. 2)
- e. Appreciating the role of aesthetic and arts in the quality of design (theory comp. 7)

Arab International University

The Program at the Arab International University meets most of the competencies with a few exceptions. Two of the specific competencies are not included:

- a. The understanding of the ethical issues involved in architectural design and practice (comp. 6)
- b. The awareness of the importance of the clients' role in the design process (comp. 25)

As for the generic competencies, nine of them seem to be missing in this Program:

- a. Maintaining continuous education (comp. 3)
- b. Leading effectively (comp. 8)
- c. Acting ethically with social responsibility (comp. 11)
- d. Empowering others (comp. 16)
- e. Human rights (comp. 19)

- f. Health and safety procedures (comp. 20)
- g. Respect for diversity and multiculturalism (comp. 24)
- h. Self motivation (comp. 27)

International University for Science and Technology

The architectural program at IUST addresses a good number of the META-Profile competencies. However, there are a number of competencies that are not clearly addressed in the curriculum and others that are not well presented in it. The following is the competencies that are not clearly addressed in the curriculum:

- a. Ability to analyze and incorporate relevant precedents into architectural design projects (design comp. 5)
- b. Act ethically pertaining issues related to architectural design and practice (professional comp. 1)
- c. Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession (professional comp. 2)
- d. Ability to work within, or lead constructively interdisciplinary teams (personal comp. 1)
- e. Demonstrate organizational skills (personal comp. 3)

A good number of competencies can be seen in the curriculum but are not well addressed:

- a. Awareness of current architectural ideas and practices at local and global levels (theory comp. 3)
- b. Ability to conduct investigation and research in the process of architectural innovation (theory comp. 4)
- c. Have critical thinking, analysis and synthesis (theory comp. 5)
- d. Ability to evaluate, enhance and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments (theory comp. 6)
- e. Ability to think, perceive and conceive spaces three dimensionally and communicate verbally, in writing, graphically, and/or volumetrically (design comp. 2)
- f. Capacity for planning, programming, budgeting and managing architectural projects (professional comp. 3)
- g. The protection and preservation of the environment (professional comp. 5)
- h. Respect for diversity and multiculturalism (professional 6)
- i. Maintain continuous education (professional comp. 7)
- j. Communicate in a second language (personal comp. 2)

It can be seen from the above summary of participating schools that three areas are well addressed in all programs; namely, Design Abilities, Construction and Technological Abilities, Theoretical Background and Socio-Cultural Values. This is understandable since all architectural programs revolve around these three pillars: design, construction, and theory. These three areas can be well introduced in schools since they can be well worked out within the studio or classroom. Moreover, academicians are typically well equipped to address these areas while they are in the comfort of their campuses (table 12).

This is not true when it comes to the fourth group of competencies, Professional Practice and Work Ethics. This is because this group of competencies relies more on the actual practice of the profession which is not feasible in the classroom. This fact is apparent in the case of the studied programs. Accommodating this group is not as satisfactory as in the case of the first three groups. It seems imperative that more creative teaching is needed to make sure that this important component of architectural education is well addressed.

Table 12: Summary of Compatibility of Participating Architectural Programs with the Architectural META-Profile. Fully shaded cells mean competencies are well addressed; partially shaded cells indicate competencies that are not well addressed, while clear cells are designated for competencies that are not addressed

DESIGN ABILITIES

		Mouloud	Cairo	Suez	Hashemite	BAU	Mohammad 1	Gaza	AIU	IUST
1	Ability to design buildings, sites, and/or urban development projects in a sustainable manner									
2	Ability to think, perceive and conceive spaces three dimensionally and communicate verbally, ...									
3	Skill in formulating creative and innovative ideas and transforming them into architectural creations ...									
4	Ability to design buildings to accommodate individuals with varying physical abilities.									
5	Ability to analyze and incorporate relevant precedents into architectural design projects.									

CONSTRUCTION AND TECHNOLOGICAL ABILITIES

		Mouloud	Cairo	Suez	Hashemite	BAU	Mohammad 1	Gaza	AIU	IUST
1	Ability to conceive and integrate structural, construction, renewable energy systems, ...									
2	Capacity to produce comprehensive construction documents									
3	Awareness of methods of execution practiced in architectural projects									
4	Understanding of the basic principles and appropriate application of construction materials ...									

THEORETICAL BACKGROUND AND SOCIO-CULTURAL VALUES

		Mouloud	Cairo	Suez	Hashemite	BAU	Mohammad 1	Gaza	AIU	IUST
1	Appreciation of the social and cultural role of Architecture.									
2	Knowledge of history and theory of Architecture and related human sciences and engineering.									
3	Awareness of current architectural ideas and practices at local and global levels									
4	Ability to conduct investigation and research in the process of architectural innovation.									
5	Have critical thinking, analysis and synthesis									
6	Ability to evaluate, enhance and preserve architectural and urban local heritage									
7	Knowledge of aesthetics and arts, and understanding their role as key factors ...									

PROFESSIONAL PRACTICE AND WORK ETHICS

		Mouloud	Cairo	Suez	Hashemite	BAU	Mohammad 1	Gaza	AIU	IUST
1	Act ethically pertaining issues related to architectural design and practice.									
2	Knowledge and ability to apply legal framework, safety regulations and technical codes ...									
3	Capacity for planning, programming, budgeting and managing architectural projects									
4	Maintain quality of work									
5	The protection and preservation of the environment									
6	Respect for diversity and multiculturalism									
7	Maintain continuous education									

PERSONAL CHARACTERISTICS

		Mouloud	Cairo	Suez	Hashemite	BAU	Mohammad 1	Gaza	AIU	IUST
1	Ability to work within, or lead constructively interdisciplinary teams									
2	Communicate in a second language									
3	Demonstrate organizational skills									
4	Possess a high level of interpersonal skills									

The Personal Characteristic group shows some weakness also. This is partly because issues related to personality and attitudes are very difficult to handle. These issues cannot be lectured; they have to be practiced and observed for the instructors to evaluate and improve. They cannot be taught in one course either; students will develop their personalities as architects while working their way through college. In this case also, academicians should take creative measures in order to enhance student person skills and characteristics.

10. Development of Architectural Programs Based on the Architectural Meta-Profile

Discussions during the Third meeting in Cyprus led to a development of the shape of the Architectural META-Profile diagram. It was agreed that the Design Abilities are the core of the Profile of any architectural program of study while the other three groups: Construction and Technical Abilities, Theoretical Background and Socio-cultural Values, and Professional Practice and Work Ethics support and feed into the Design Abilities in order to reach learned and well executed designs at all technical, environmental, and human levels. Personal Characteristics were considered attributes that should be present in every aspect of the design and its preparatory stages. Thus, they were seen as a background that embraces and directs the whole architectural profession and its educational system. Based on this argument, the Architectural META-Profile took the shape presented in Figure 2.

This view of the Personal Characteristics should not mean dealing with them using a few comments in a number of courses. It is critical and imperative that they are clearly and methodologically addressed in specific courses providing theoretical background while practically applied in all design and technical courses.

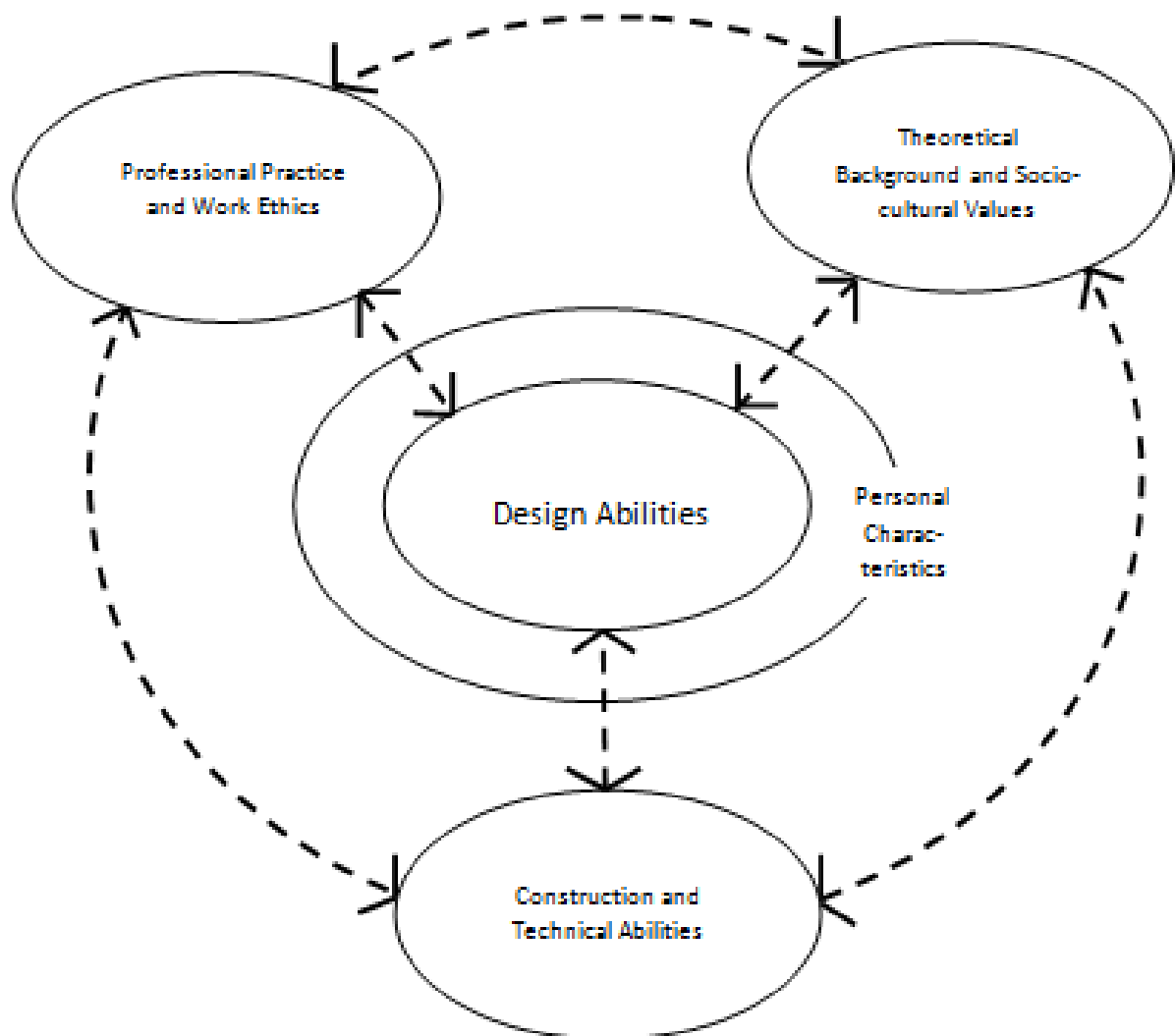


Fig. 2: Final form of the Architectural META-Profile

Three participating schools decided to develop their programs to be more in tune with the developed Architectural META-Profile: Mohammed 1st University (UMP), Morocco; The Hashemite University, Jordan; and the International University for Science and Technology, Syria. Both Mohammed 1st University and The Hashemite University developed a comprehensive new program while IUST made amendments and changes to its existing program. The three proposals are presented in the indices.

INDEX 1:

The Architectural Program At The Hashemite University

COMPARISON OF META-PROFILE WITH INDIVIDUAL ARCHITECTURAL PROGRAMS:

The following is an example of a comparison of one architectural program, the architectural engineering program at the Hashemite University (HU), with the developed Meta-Profile. A comprehensive evaluation of the participating architectural programs follows.

a. Comparing HU's Architectural Engineering Program with T-MEDA Architectural Meta-Profile

The Architectural Program at HU states seven objectives as follows:

Architectural Engineering Program Objectives:

- 1) To provide students with a rich and rigorous foundation in the fields of architectural design, technology, urban design, structure, history and theory, and landscape architecture,
- 2) To develop and foster students' abilities in analytical, critical, creative, and interpretative thinking skills.
- 3) To prepare our students for the actual architectural engineering profession to function as architectural engineers in a global society,
- 4) To improve the quality of the built environment through architecture,
- 5) To continuously develop the program to meet the recent advancement and the market diverse needs of the local national and international.

- 6) To develop the students' ability to communicate effectively by using oral, written and graphic forms, the ability to analyze and interpret data and provide the results necessary to design buildings.
- 7) To develop the students' ability to lead and communicate effectively with colleagues, clients and the local community

The following table is a comparison between the current curriculum of the Architectural Engineering Program at the Hashemite University with the agreed upon META-Profile as developed in Tuning's last two meetings in Jordan and Spain.

The table consists of four columns. The first column states the competencies of the META-Profile categorized in the five agreed upon areas. The second column relates the particular competency with the Program's objectives if any; it also evaluates the level of overlapping these objectives have with the competencies. The third column lists the courses which deal with each one of the competencies. And finally, the fourth column evaluates the degree each competency is actually emphasized in the program through its courses.

Table 12: Comparing META-Profile with HU's Architectural Engineering Program
DESIGN ABILITIES

THE META-PROFILE COMPETENCY	THE COMPETENCY IN THE HU ARCHITECTURAL ENGINEERING PROGRAM OBJECTIVES	THE COMPETENCY IN THE HU ARCHITECTURAL PROGRAM COURSES	EVALUATION OF THE COMPETENCY
Ability to design buildings, sites, and/or urban development projects in a sustainable manner (socially, culturally, economically, environmentally)	1,2,4 Objectives satisfy the competency.	<ul style="list-style-type: none"> • All design studios • Housing • Landscape Design • Urban Planning • Theory of Urban Design 	<ul style="list-style-type: none"> • Courses offered and their contents should be sufficient to cover this competency.
Ability to think, perceive and conceive spaces three dimensionally and communicate verbally, in writing, graphically, and/or volumetrically.	1,2,6, Objectives satisfy the competency.	<ul style="list-style-type: none"> • <u>Architectural Drawing</u> • <u>Free hand Drawing</u> • <u>Architectural Communication and Presentation (1)</u> • <u>Architectural Communication & Presentation (2)</u> • Computer Applications In Architectural Design (1) • Computer 	<ul style="list-style-type: none"> • Students can think of spaces three dimensionally. • But they lack good communication skills in all media.

		Applications In Architectural Design (1)	
Skill in formulating creative and innovative ideas and transforming them into architectural creations and urban planning.	1,2,3,4, Objective satisfactory	<ul style="list-style-type: none"> • All design courses • Housing • Landscape Design • Urban Planning • Theory of Urban Design 	<ul style="list-style-type: none"> • Courses offered and their contents should be sufficient to cover this competency.
Ability to design buildings to accommodate individuals with varying physical abilities.	1,5 Objective needs development	<ul style="list-style-type: none"> • Some design courses 	<ul style="list-style-type: none"> • Emphasis on this point is growing and becoming mandatory in most designs.
Ability to analyze and incorporate relevant precedents into architectural design projects.	1,2 Objective satisfactory	<ul style="list-style-type: none"> • all design courses 	<ul style="list-style-type: none"> • All the design courses deals with the case studies and design precedents.

CONSTRUCTION AND TECHNOLOGICAL ABILITIES

THE META-PROFILE COMPETENCY	THE COMPETENCY IN THE HU ARCHITECTURAL ENGINEERING PROGRAM OBJECTIVES	THE COMPETENCY IN THE HU ARCHITECTURAL PROGRAM COURSES	EVALUATION OF THE COMPETENCY
Ability to conceive and integrate structural, construction, renewable energy systems, and environmental and installation systems to architectural designs.	1, 2,3,4, Not clearly stated Objective needs development	<ul style="list-style-type: none"> • All design course • Building Materials • Architectural structural systems • Building finishing • Working Drawings • Lighting & Acoustics • Ancient Building Technologies • Building and Energy 	<ul style="list-style-type: none"> • Courses offered and their contents should be sufficient to cover this competency.
Capacity to produce comprehensive construction	3, Not clearly stated	<ul style="list-style-type: none"> • Building Materials • Architectural structural systems 	<ul style="list-style-type: none"> • Courses offered and their contents should be

documents.		<ul style="list-style-type: none"> • Building finishing • Working Drawings 	sufficient to cover this competency.
Awareness of methods of execution practiced in architectural projects.	3, Objective satisfactory	<ul style="list-style-type: none"> • Building Materials • Architectural structural systems • Building finishing • Working Drawings 	Courses offered and their contents should be sufficient to cover this competency.
Understanding of the basic principles and appropriate application of construction materials including local ones.	3, 4, Not clearly stated	<ul style="list-style-type: none"> • Building Materials • Architectural structural systems • Building finishing 	<ul style="list-style-type: none"> • Courses offered and their contents should be sufficient to cover this competency.

THEORETICAL BACKGROUND AND SOCIO-CULTURAL VALUES

THE META-PROFILE COMPETENCY	THE COMPETENCY IN THE HU ARCHITECTURAL ENGINEERING PROGRAM OBJECTIVES	THE COMPETENCY IN THE HU ARCHITECTURAL PROGRAM COURSES	EVALUATION OF THE COMPETENCY
Appreciation of the social and cultural role of Architecture.	1, Not clearly stated	<ul style="list-style-type: none"> • <u>History & Theory of Architecture (1)</u> • <u>History & Theory of Architecture (2)</u> • <u>Contemporary Arch.</u> • <u>Islamic Architecture</u> • <u>Theory of Modern Architecture</u> • Theory & Methods of Architectural Design 	<ul style="list-style-type: none"> • Courses offered and their contents should be sufficient to cover this competency.
Knowledge of history and theory of Architecture and related human sciences and engineering.	1, Not clearly stated	<ul style="list-style-type: none"> • <u>History & Theory of Architecture (1)</u> • <u>History & Theory of Architecture (2)</u> • <u>Local Contemporary Architecture</u> • <u>Islamic Architecture</u> • <u>Theory of Modern Architecture</u> 	<ul style="list-style-type: none"> • Courses offered and their contents should be sufficient to cover this competency.

		<ul style="list-style-type: none"> • <u>Theory & Methods of Architectural Design</u> 	
Awareness of current architectural ideas and practices at local and global levels.	1, Objective satisfactory	<ul style="list-style-type: none"> • <u>Local Contemporary Architecture</u> • <u>Islamic Architecture</u> • <u>Theory of Modern Architecture</u> • Theory & Methods of Architectural Design 	<ul style="list-style-type: none"> • Not sufficiently introduced
Ability to conduct investigation and research in the process of architectural innovation.	1,2, Objective satisfactory	<ul style="list-style-type: none"> • <u>Graduation Project (1)</u> 	<ul style="list-style-type: none"> • Not sufficiently introduced
Have critical thinking, analysis and synthesis	2, Not clearly stated	<ul style="list-style-type: none"> • All design courses 	<ul style="list-style-type: none"> • Not sufficiently introduced
Ability to evaluate, enhance and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments.	Not clearly stated	<ul style="list-style-type: none"> • Islamic Architecture • Local Contemporary Architecture • <u>Conservation of Architectural Heritage</u> • Restoration & Rehabilitation of Historic Buildings 	Not sufficiently introduced
Knowledge of aesthetics and arts, and understanding their role as key factors in the quality of	Not clearly stated	<ul style="list-style-type: none"> • All design courses, especially Basic Design 1, 2 	<ul style="list-style-type: none"> • Courses offered and their contents should be sufficient to cover this competency.

architectural thinking and design.			
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PROFESSIONAL PRACTICE AND WORK ETHICS

THE META-PROFILE COMPETENCY	THE COMPETENCY IN THE HU ARCHITECTURAL ENGINEERING PROGRAM OBJECTIVES	THE COMPETENCY IN THE HU ARCHITECTURAL PROGRAM COURSES	EVALUATION OF THE COMPETENCY
Act ethically pertaining issues related to architectural design and practice.	6,7 Not Clearly stated	<ul style="list-style-type: none"> Ethics and communication skills Professional practice Implicitly stated in design courses 	<ul style="list-style-type: none"> Courses offered and their contents should be sufficient to cover this competency.
Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession.	1, 3, 4, Not clearly stated	<ul style="list-style-type: none"> Implicitly stated in design and construction courses 	<ul style="list-style-type: none"> Competency is not structured in any particular course and is not taken as an issue in the department
Capacity for planning, programming, budgeting and managing architectural projects.	Not stated	<ul style="list-style-type: none"> Quantities and Specifications 	<ul style="list-style-type: none"> Not sufficiently introduced
Maintain quality of work	Not stated	<ul style="list-style-type: none"> Implicitly emphasized in all courses 	<ul style="list-style-type: none"> Strongly emphasized in all courses
The protection and preservation of the environment	4, Objective satisfactory	<ul style="list-style-type: none"> <u>Landscape Design</u> <u>Environmental Control</u> 	<ul style="list-style-type: none"> Not sufficiently introduced
Respect for diversity and multiculturalism	Not stated	<ul style="list-style-type: none"> Local Contemporary Architecture <u>Conservation of</u> 	<ul style="list-style-type: none"> Not sufficiently introduced

		<u>Architectural Heritage</u>	
Maintain continuous education	5, Objective satisfactory	<ul style="list-style-type: none"> • Implicitly emphasized in some courses 	<ul style="list-style-type: none"> • Not sufficiently introduced

PERSONAL CHARACTERISTICS

THE META-PROFILE COMPETENCY	THE COMPETENCY IN THE HU ARCHITECTURAL ENGINEERING PROGRAM OBJECTIVES	THE COMPETENCY IN THE HU ARCHITECTURAL PROGRAM COURSES	EVALUATION OF THE COMPETENCY
Ability to work within, or lead constructively interdisciplinary teams.	7, Objective satisfactory	<ul style="list-style-type: none"> • Partly emphasized in design courses 	<ul style="list-style-type: none"> • Competency is not structured in any particular course and is not taken as an issue in the department
Communicate in a second language	Not stated	<ul style="list-style-type: none"> • English Skills (1) • English Skills (2) • Technical English 	<ul style="list-style-type: none"> • Not sufficiently introduced
Demonstrate organizational skills	2, 7, Not clearly stated	<ul style="list-style-type: none"> • <u>Graduation Project (1)</u> 	<ul style="list-style-type: none"> • Competency is not structured in any particular course and is not taken as an issue in the department
Possess a high level of interpersonal skills	6, 7, Not clearly stated	<ul style="list-style-type: none"> • Partly emphasized in design courses 	<ul style="list-style-type: none"> • Competency is not structured in any particular course and is not taken as an issue in the department

According to the above table, the following can be concluded:

In connection with the objectives of the Architectural Engineering Program at HU:

- 1) Current objectives of the Program are **all addressed** in the META-Profile.
- 2) Objectives of the Program **does not seem to address** the following points stated in the META-Profile: varying physical abilities of users, local heritage, ethics, programming and management of projects, quality of work, respect of diversity, teamwork, and knowledge of second language.

- 3) Objectives of the Program **needs to clarify** the following points to become more in tune with the META-Profile: integration of engineering systems to architectural design, social and cultural role of architecture, critical thinking, and bridge the gap between theory and practice.

In connection with the courses of the Architectural Engineering Program at HU:

1. A good number of them fulfill the META-Profile competencies.
2. Nevertheless, the following competencies are **not addressed** in courses:
 - Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession.
 - Ability to work within, or lead constructively interdisciplinary teams.
 - Demonstrate organizational skills
 - Possess a high level of interpersonal skills
 - Capacity for planning, programming, budgeting and managing architectural projects.
 - Maintain quality of work
3. The following competencies are **not well addressed**:
 - Ability to conduct investigation and research in the process of architectural innovation.
 - The protection and preservation of the environment.
 - Respect for diversity and multiculturalism.
 - Maintain continuous education.
 - Communicate in a second language.

In conclusion, Competencies related to DESIGN ABILITIES as well as CONSTRUCTION AND TECHNOLOGICAL ABILITIES are all almost well covered in the Program's courses. Competencies of THEORETICAL BACKGROUND AND SOCIO-CULTURAL VALUES, PROFESSIONAL PRACTICE AND WORK ETHICS, and PERSONAL CHARACTERISTICS are either not introduced or not sufficiently addressed in the Program's courses. (to be continue).

T-MEDA ARCHITECTURE PILOT PROGRAM TO BE IMPLEMENTED
PREPARED BY DR. AHMAD ALHUSBAN, ARCHITECTURAL DEPARTMENT,
The HASHEMITE UNIVERSITY, JORDAN

Name: architectural engineering degree program

Educational Prerequisites: A General Secondary Education Certificate, Scientific Branch with GPA above 80% is required for admission

Level: Bachelor of Architectural Engineering program

Length: The Bachelor of Architectural Engineering program is a 5-year program that prepares graduates for entry-level work as architects. The curriculum prepares students for the challenges and demands of architectural professional practice.

Occupations and the potential fields / sectors for the employment of graduates

Students who have earned a bachelor degree may pursue these career options:

- Architecture designer (Architect)
- Architectural Visualization
- Architectural Drafter/Technician
- Model Maker
- Architectural Technologists are specialists in the science of architecture, building design and construction.
- Interior designer architect
- landscape architect
- Independent Practice in Architecture and Urban Development
- In Construction Field: Site engineer, Construction manager, Consultant, Quantity Surveyor
- University Lab Supervisor/Academic (Teaching and research assistant)
- Surveyor
- Working for a Public Authority
- Architectural Journalism

Architectural Engineering Program Mission:

The architectural engineering program provides students with a rich and rigorous foundation in the fields of design principles, communication and representation systems, architectural design, construction material and technology, computer-aided design, urban design, structural systems and behaviors, history and theory, landscape architecture, and city planning. The program thus balances the intensity of a theory with creative, productive, and innovative architectural design with responsible practice. It integrates other disciplines such as Computer Science, and human science into design. Students will learn to Contextualize ideas in theoretical frame them communicate through illustrations, models and, drawings although one of our goals is to raise the awareness of the local and regional architectural identity; we are fully committed to prepare our students for the actual architectural engineering profession to function as architectural engineers in a global society.

Vision Statement

The Department of Architectural engineering is a research- led and student- centered. It aims at engaging in exemplary architectural teaching, research, scholarship, creative endeavor, and service on international, regional and national level. The program is structured to establish connections with other distinguished national / international foundations, visitors and scholars. The department aim to improve the quality of the built environment through architecture.

Architectural Engineering Program Objectives:

The objectives of the Department of architectural engineering at the Hashemite University reflect the view that architecture is an intellectual and interdisciplinary discipline, both an art and a profession science. The program, therefore, is based on the following intentions:

- 1) Architectural Engineering Program Objectives is to develop and foster students' abilities in analytical, critical, creative, and interpretative thinking skills. It is to prepare architecture students for professional and technical roles wherein they need to solve

architectural design problems in creative ways. Our design teaching method focuses on how the students acquire, organize, and apply design knowledge base on the instructor's knowledge, teaching style, personal experience, and ability to build a conceptual understanding of the design knowledge domain. Therefore, our architectural design program has three objectives: to teach new skills, to teach new languages, and to teach students how to think in architectural terms.

- 1) The ability to effectively communicate using oral, written and graphic forms, the ability to analyze and interpret data and provide the results necessary to design buildings.
- 2) To provide students with adequate knowledge of design principles, communication and representation systems, architectural design, construction material and technology, computer-aided design, urban design, structural systems and behaviors, history and theory, landscape architecture, and city planning.
- 3) The capacity to apply Knowledge of science, and engineering architectural design'
- 4) The Knowledge of contemporary issues, in architecture, which allows them to appreciate the impact of architectural solutions on humankind in general and local community in particular,
- 5) To provide students with knowledge, skills and proficiency to meet the growing demands of future profession in dealing with the dynamic, fluid and progressive trend of architecture. The curriculum is crafted to enhance and foster students' as well as instructors' abilities to face the global competition and to work in different environments.
- 6) To develop continuously the program to meet the resent advancement and the market diverse needs of the local national and international.
- 7) To provide architectural students with knowledge of engineering and the practical aspect of the building industry
- 8) To draw knowledge from humanities, the social and physical science, technology, environmental science, the creative arts, and the liberal arts
- 9) To provide students with knowledge of the means of achieving ecologically sustainable design and environmental conservation and rehabilitation
- 10) Training in research techniques as an inherent part of architectural learning, for both students and teachers.
- 11) To prepare the future architects for professional practice role in design, theories, and construction technological systems. Additionally to prepare them to communicate effectively with other engineering disciplines

- 12) The ability leads and effectively communicates with colleagues, clients and the local community.

What is the design?

Design is one of the most sophisticated human intellectual processes; it involves how the designers see and think consequently in order to generate new, valuable, and/or desirable solutions. Design is a systematic operation that everyone uses every day, but some people have better developed design ability than others. Additionally, design is rhetorical, persuasive, exploratory, discovery-oriented, emergent, opportunistic, reflective, ambiguous, and risky.

Design depends on the accumulation of knowledge, experience, training, cognitive strategies, creative thinking skills, tacit and implicit knowledge, and chain of design decisions. It involves transformation of the knowledge and structuring search.

Design can be considered as a problem solving activity. Each design task deals with a large number of aspects to generate design ideas or concepts. The complexity and ambiguity of design requires creative thinking, non-routine thinking, and various other skills. Architectural design comes from the designer's ability to create and execute a designing form, space, light, materials, and technologies to achieve the functional and aesthetic objectives.

The design Studio

The design studio is a cornerstone and a center of most design disciplines curricula. It is a working space, where students practice design projects under the supervision of design instructor professors. The students work on semester-length projects; they respond to complex and open-ended assignments. In the architectural design studio, students are meant to "learn by doing" in a "design-critique-redesign cycle". This critique cycle takes two shapes; formal discussion as in review or before juries, and informal discussion as in instructor-student critique or one-on-one critique.

The design studio is a place for multidisciplinary teaching and learning because of the diversity of design issues that are considered in design studio courses. In the architectural design studio, students are encouraged to design from a holistic view, introduce multiple design perspectives, create new design concepts and ideas, present and define their design ideas, and learn new design techniques and skills.

The design studio is more than a place to study and teach; it is a place for engaging in social interactions, building relationships, and exchanging design knowledge, ideas, and views. Different design stages require different design knowledge. The communication inside the design studio develops shared meaning, memories, knowledge, and information, and aids in planning activities, tasks, and methodologies.

In the architectural design studio, students are required to submit an educational design proposal for the same design program, including visual media such as sketches, technical drawings, perspectives, and models to illustrate the educational design project.

Education in the design studio values leadership skills, individual creativity, and the understanding of problems and the ability to solve them as presented in the practice of architecture. The architectural engineering department's mandate is for each student to understand architecture as a creative, productive, innovative, and responsible practice.

Program Meta-profile

In addition to the design studios, courses in design and visualization, building construction and technological aspects, history and theory, urbanism and landscape, and professional practice and work ethics serve as a basis for developing a comprehensive approach to architectural design.

The architectural education in our department involves the acquisition of the following capabilities:

Design Ability

The area of design and visualization encompasses required studios, option studios, electives that concentrate on design logic and skills, and courses that support design thinking and representation. The design studio develops the students':

- 1) Ability to design building, sites, and/or urban development projects in a sustainable manner (socially, culturally, economically, environmentally),
- 2) Ability to think, perceive and conceive spaces three dimensionally and communicate verbally, in writing, graphically, and/or volumetrically.
- 3) Skills in formulating creative and innovative ideas and transforming them into architectural creations and urban planning,
- 4) Ability to design buildings to accommodate individuals with varying physical abilities,
- 5) Ability to analyze and incorporate relevant precedents into architectural design projects

Construction and technological ability

Construction and technological aspects courses explore, as an integral part of the architectural design process, the physical context; the properties of natural forces; and building structural systems. These courses will develop the students':

- 1) Ability to conceive and integrate structural, construction, renewable energy systems, and environmental and installation systems to architectural design.
- 2) Capacity to produce comprehensive construction documents.
- 3) Awareness of methods of execution practiced in architectural projects.
- 4) Understanding of the basic principles and appropriate application of construction materials including local ones.

The theoretical background and socio cultural values

Courses in history(contemporary) and theory examine attitude concerning the design of building, landscape, and cities that may contribute to a design process responsive to its broadest social and cultural context.

Courses in urbanism and landscape address the study of aesthetic, economic, political, and social issues that influence large-scale environments.

These courses will develop the students':

- 1) Appreciation of the social and cultural role of architecture,

- 2) Knowledge of history and theory of architecture and related human sciences and engineering,
- 3) Awareness of current architectural ideas and practices at the local and global levels,
- 4) Ability to conduct investigation and research in the process of architectural innovation,
- 5) Critical thinking, analysis and synthesis,
- 6) Ability to evaluate, enhance, and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments,
- 7) Knowledge of aesthetics and arts, and understanding their role as key factors in the quality of architectural thinking and design.

Professional practice and work ethics:

In the area of practice, courses are concerned with issues related to the professional context of architecture and its practice and, in particular, with the architect's responsibility for the built environment. Courses in working drawing, contracts and specifications, quantity surveying, professional practice, and training will develop the students':

- 1) To act ethically pertaining issues related to architectural design and practice,
- 2) Knowledge and ability to apply legal framework, safety regulation and technical codes controlling activities of profession,
- 3) Capacity for planning, programming, budgeting and managing architectural projects,
- 4) Ability to maintain quality of work,
- 5) Ability to protection and preservation of the environment,
- 6) Respect for diversity and multiculturalism,
- 7) Maintain continuous education.

The diversity of courses offerings in the department of architectural engineering at the Hashemite University, therefore, represents a concern for architectural engineering design that ranges in scale from the individual building to the urban design landscape. Students are also encouraged to take courses in other departments in the university.

Studies and research in architecture and urbanism are supported throughout the curriculum by course work and design studio.

Lectures and design studio courses provide the foundation of our program. Students are required to complete core courses in the design studio, which provide students with an opportunity to gain practical experience in designing.

Architectural courses would require a mix of research and design. Design work is crucial to our program so that students can apply the skills and concepts they learned in their theoretical courses to create drawings and models of their design.

The architectural engineering departments at the Hashemite University does not seek to impose any single design philosophy and/or method, but rather than encourages in each students the development and discernment and an individual approach to design.

(To Be Continue)

THE HASHEMITE UNIVERSITY
Faculty of Engineering
Department of Architectural Engineering
2015

T MEDA architecture pilot program to be implemented Study Plan

The requirements for conferring of the Bachelor's degree in the department of Architectural Engineering are:

- Minimum total Credit Hours (CH) of (172) according to the following study plan.
- The detailed distribution of the minimum credit hours required is shown below:

	Credit Hours
University Requirements	27
a) Compulsory	12
b) Electives	15
College Requirements	27
a) Compulsory	27
b) Electives	0
Department Requirements	118
a) Compulsory	103
b) Electives	15
Total	172

The indications of the course subject's digits

Field Title	Field No.
General Courses	0
Architectural Drawings and Communication Courses	1
Architectural Design Courses	2
Architectural Construction Courses	3
History and Theory of Architecture Courses	4
Legislations, Specifications and Practice Courses	5

Urban Studies	6
Engineering Systems	7

Example

Architectural Design (1)						0407221	
15	0	4	0	7	2	2	1
Year	College		Department		Level	Field	Sequence No.

University requirements (27 credit hours):

1- Compulsory: (12) credit hours, as follows:

Course Number	Course Title	Credit Hours	Weekly Credit Hour		Prerequisite
			Lecture	Practical	
0107106	Military Sciences	3	3	–	–
2107108	Citizenship Education	3	3	–	–
2110100	Arabic Language	3	3	–	Level Test in Arabic Language or 2110099
2120100	English Language	3	3	–	Level Test in English Language or 2120099

2- Elective: (15) credit hours. The student is allowed to choose only from the following groups:

- Fields of Human Sciences.
- Fields of Social and Economic Sciences.
- Fields of Sciences, Technology, Agriculture, and Health.

Fields of Human Sciences: From three (3) to six (6) credit hours

Course	Course Title	Credit	Weekly Credit Hour	Prerequisite
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Number		Hours	Lecture	Practical	
0107100	Human Civilization	3	3	–	–
0107101	Islamic Thought	3	3	–	–
0107102	Jordan History and Civilization	3	3	–	–
0107103	Theory of Knowledge	3	3	–	–
0107109	Jerusalem: History and Civilization	3	3	–	–
0107112	Islam and Contemporary Issues	3	3	–	–

Fields of Social and Economic Sciences: From three (3) to six (6) credit hours

Course Number	Course Title	Credit Hours	Weekly Credit Hour		Prerequisite
			Lecture	Practical	
0107105	Science of Sociology	3	3	–	–
0202150	Law and the Ordering of Our Life	3	3	–	–
0302100	Educational Culture	3	3	–	–
0303101	Family Violence	3	3	–	–
0306100	Fine Arts	3	3	–	–
1102122	Fundamentals of Sign Language	3	3	–	–
2201100	Economic Science	3	3	–	–
2303100	Study skills	3	3	–	–
2303121	Psychology	3	3	–	–
3901100	Archeology and Tourism Science	3	3	–	–

Fields of Sciences, Technology, Agriculture, and Health: From three (3) to six (6) credit hours

Course Number	Course Title	Credit Hours	Weekly Credit Hour		Prerequisite
			Lecture	Practical	
0401105	Architectural Arts	3	3	–	–
0401160	Traffic Safety	3	3	–	–
0502100	Principles of Nutrition	3	3	–	–
0503100	Skin Care Science	3	3	–	–
0701100	First Aids	3	3	–	–
0701101	Health Education	3	3	–	–
1201100	Principles of Astronomy	3	3	–	–
1202100	Garden Landscape	3	3	–	–
1202101	Water Resources	3	3	–	–
1203100	Principles of Environmental Science	3	3	–	–
1601100	Sports and Health	3	3	–	–

Second: College Requirements: (24) Twenty-Four Credit Hours as shown in the following table:

Course No.	Course Title	Detailed Distribution of Credit Hours		Credit Hours	Prerequisite or Co-requisite*
		Lecture	Practical		
<u>110108101</u>	Calculus (1)	3	-	3	-
<u>110102101</u>	General Physics	3	-	3	-
<u>110102103</u>	General Physics Laboratory (1)	-	3	1	110102101*
<u>150407103</u>	Engineering Geology	3	-	3	-
<u>150407104</u>	Engineering Geology laboratory	-	3	1	150407103*
<u>110400101</u>	Engineering Workshop	1/2	2	1	-
<u>110400203</u>	Professional Practice and Technical Writing	3	-	3	111405110
<u>150407101</u>	Architectural Drawing	1	6	3	-
<u>150407102</u>	Computer Applications in Architectural Design (1)	-	6	2	150407101
<u>150407111</u>	Free Hand Drawing	-	6	2	150407101*
<u>150407112</u>	Architectural Communication and Presentation (1)	-	6	2	150407111
<u>110108112</u>	C++ Programming Language	-	3	3	110108099 or computer skills test

Third: Department Requirements: (118) Hundred and eighteen Credit Hours as Follows:

a. Compulsory Requirements: (103) Hundred and three Credit Hours as shown in the following table:

Course No.	Course Title	Detailed Distribution of Credit Hours		Credit Hours	Prerequisite or Co-requisite*
		Lecture	Practical		

150401214	Engineering Mechanics	3	-	3	150102101 and 150108101
150401313	Structural Analysis for Architectural Students	3	-	3	150401214
150401324	Concrete and Steel Structures for Architectural students	3	-	3	150407335 and 150401313
150407121	Basic Design (1)	1	6	3	150407101*
150407122	Basic Design (2)	1	6	3	150407121
150407211	Computer Applications in Architectural Design (2)	-	6	2	150407102
150407212	Architectural Communication and Presentation (2)	-	3	1	150407112
150407221	Architectural Design (1)	1	9	4	150407122 and 150407112
110401369	Surveying and Building Documentation	1	6	3	150407222
110402450	Electro-Mechanical Systems for Architectural students	3	-	3	150407423*
150407222	Architectural Design (2)	1	9	4	150407221
150407232	Building Material	2	3	3	150407103
150407241	History and Theory of Architecture (1)	3	-	3	150407111
150407321	Architectural Design (3)	1	9	4	150407222 And 150407212
150407322	Architectural Design (4)	1	9	4	150407321
150407233	Building System	2	3	3	150407232
150407336	Finishing	2	3	3	150407233
150407242	History and Theory of Architecture (2)	3	-	3	150407241
150407341	Islamic Architecture	3	-	3	150407242

150407342	Theory of Modern Architecture	3	-	3	150407341*
150407343	Theory and Method of Architectural Design	1	-	1	150407321* and 150407342
150407361	Landscape Design	1	3	2	150407321
150407421	Architectural Design (5)	1	12	5	150407322 and 150407423*
150407422	Architectural Design (6)	1	12	5	150407421
150407423	Working Drawings	-	6	3	150407336
150407461	Urban Design and Planning	3	-	3	150407421 and 150407361
150407451	Specifications and Contracts	2	-	2	150407423 And 150407421
150407452	Quantity Surveying	2	-	2	150407451
150407361	Housing	2	-	2	150407222
150407461	Conservation of Architectural Heritage	2	-	2	150407343 and 150407322
150407453	Field Practice**	-	-	3	110400203, student should successfully finish 112 credit hours at least and 150407421
150407471	Lighting and Acoustics	2	3	3	150407322
150407521	Graduation Project (1)	1	3	2	student should successfully finish 120 credit hours at least include 150407422, 150407342, 150407423
150407522	Graduation Project Design	1	12	5	150407521

150407551	Professional Practice	2	-	2	150407452
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*or Concurrent

**Training for (8) continuous weeks inside or outside Jordan

b. Elective Requirements: (15) Fifteen Credit Hours selected from the following table:

Course No.	Course Title	Detailed Distribution of Credit Hours		Credit Hours	Prerequisite or Co-requisite*
		Lecture	Practical		
150407424	Interior Design	1	6	3	150407321
150407432	Ancient Building Technologies	3	-	3	150407341
150407444	Local Contemporary Architecture	3	-	3	150407342
150407561	Restoration and Rehabilitation of Historic Buildings	3	-	3	150407461
150407472	Desert Habitation	3	-	3	150407461*
150407523	Special Topics in Architecture	3	-	3	150407542*
110401566	GIS	1	6	3	110401369 or 110401365
150407571	Green Architecture	3	-	3	150407322
150407562	Architecture & Identity	3	-	3	150407465*
150407524	Methodologies of Architectural Design	3	-	3	150407422*
150407473	Building and Energy	3	-	3	150407471*
150407541	Human Behavior in Architecture	3	-	3	150407322

	Course	Credit Hours		Course	Credit Hours
First Year First semester	Arabic Language	3	First Year Second semester	English Language	3
	Calculus (1)	3		Military Sciences	3
	General Physics (1)	3		Engineering Geology	3
	General Physics Laboratory (1)	1		Engineering Geology Laboratory	1
	Basic Design (1)	3		Basic Design (2)	3
	Free Hand Drawing	2		Architectural Communication Presentation (1)	2
	Architectural Drawing	3		Computer Applications in Architectural Design (1)	2
	Total	18		Total	17
Second Year First semester	Engineering Workshop	1	Second Year Second semester	Citizenship Education	3
	Ethics and Communicational skills	3		Architectural Design (2)	4
	Architectural Design (1)	4		History & Theory of Architecture (2)	3
	History & Theory of Architecture (1)	3		Building Systems	3
	Building Material	3		Computer Applications in Architectural Design (1)	2
	Architectural Communication & Presentation (2)	1		Structural Analysis for Architectural Students	3
	Engineering Mechanics	3			
	Total	18		Total	18
Third Year First semester	C++ Programming Language	3	Third Year Second semester	Department elective	3
	Architectural Design (3)	4		Architectural Design (4)	4
	Islamic Architecture	3		Theory of Modern Architecture	3
	Building Finishing	3		Theory & Methods of Architectural Design	1
	Surveying and Building Documentation	3		Concrete and Steel Structures for Architectural students	3

	Housing	2		Landscape Design	3
	Total	18		Total	16
Forth Year First semester	Department elective	3	Forth Year second semester	University elective	3
	Architectural Design (5)	5		Practical Training	3
	Urban Planning & Design	3		Electro-Mechanical Systems	3
	Working Drawings	3		Architectural Design (6)	5
	Lighting and Acoustics	3		Specifications and Contracts	2
				Conservation of Architectural Heritage	2
	Total	17		Total	18
Fifth Year First semester	University elective	3	Fifth Year second semester	University elective	3
	University elective	3		University elective	3
	Department elective	3		Department elective	3
	Department elective	3		Graduation project(2)	5
	Quantity Surveying	2		Professional Practice	2
	Graduation Project (1)	2			
	Total	16		Total	16

DESCRIPTION OF THE COURSES/UNITS, COURSE LEARNING OUTCOMES, AND ASSESSMENT METHOD

150407101 ARCHITECTURAL DRAWING

3 Credit hours, (1+6)

COURSE DESCRIPTION:

This course seeks to teach the students the different terms used in architecture and its history. Focusing on developing the basic drawing skills used in designing and presenting the architectural work, which is done, through a series of theoretical lectures and practical exercises. The different ways and methods used in drawing lines, planes and forms. Basic principles used in architectural expression (plans, elevations, sections and 3D drawings).

COURSE LEARNING OUTCOMES:

The objectives of this course are that students will:

1. Be able to apply the fundamentals, science, architecture and engineering as well as aesthetic principles to the conceptualization, design and realization of buildings.

2. Be able to identify, formulate and solve architectural problems.
3. Establish knowledge and understanding of basic architectural technical drawings and related conventions.
4. Understand basic principles of orthogonal, oblique, isometric projections and related skills.
5. Properly use of architectural symbols and other drawing conventions related to plans, elevations, and sections.
6. Demonstrate efficient techniques for drawing presentation and expressing design ideas.

GRADING:

1. Assignments
2. Home works
3. Mid exam + Quizzes
4. Final exam (project)

1504070111 Free Hand Drawing

2 Credit hours, (0+6) Prerequisites: 150407101 or concurrent

COURSE DESCRIPTION:

This course seeks to teach the students the different free hand drawing techniques focusing on training the students to acquire the basic free-hand drawing skills used in presentation. Developing the artistic sense when dealing with lines, planes, solids and voids, and the perception of different environments, forms and shapes. Providing students with some basic training on drawing plants, figures, perspectives, casting shades and shadows, and the presentation of 2D and 3D drawings using pencils and charcoal.

COURSE LEARNING OUTCOMES:

Introducing the students to the basic sketching materials.

- 1) Discovering and enhancing the student's natural talent.
- 2) Developing the student's individual skills in communicating architectural as well as imaginative thinking into effective visualized drawings.
- 3) Encouraging the students towards the continual exploration of innovative techniques in architectural communication.

GRADING:

1. Studio work
2. Home works
3. Sketch book
4. Final project

150407112 ARCHITECTURAL COMMUNICATION AND PRESENTATION (1)

2 Credit hours, (0+6), Prerequisites: 150407111

COURSE DESCRIPTION:

This course seeks to teach the students the different architectural expression methods and techniques used in presentations. Training on how to draw different perspectives (one- point perspective, two-points perspective, external and internal perspectives), and casting shades and shadows on the different architectural drawings (plans, elevations, sections and site plans).

COURSE LEARNING OUTCOMES:

1. The main aim of this course is to introduce students to basic knowledge required to present and communicate architectural drawings.
2. By the end of this course, student will
3. Understand the way our eyes perceive and recognize the three dimensional world (lines, surfaces, and masses).
4. Gain a comprehensive overview of the various techniques of drawing interior and exterior perspectives.
5. Know the elements of the perspective drawing.
6. Analyze and construct perspective drawings (1VP, 2VPs) using different techniques.
7. Understanding the nature of light (nature & artificial) and its effect on surfaces and masses: shades & shadows.
8. Construct and plot shades & shadows into different types of architectural drawings (plans, elevations, site plans, isometric, and perspective).

GRADING:

Home works (1 VP, 2 VP, Shades & Shadows)
In-Class works: Perspective Drawing: 1 VP
In-Class works: Perspective Drawing: 2 VP
In-Class works: Shades & Shadows
Mid term exam
Final project
Final Exam

150407212 ARCHITECTURAL COMMUNICATION AND PRESENTATION 2:

(1 credit hour, (0+3), Prerequisites: 150407112)

COURSE DESCRIPTION:

This course deals with graphic and visual presentation techniques for architectural students by using different rendering techniques such as pencil, ink, collage, photography, water color, markers, zip-a-tone, air brush modeling and airbrush techniques.

COURSE LEARNING OUTCOMES:

The primary goal of this class is to develop student's ability to use rendering techniques. Students who complete this course will have a basic competence in practical skills that can be immediately applied in studio and other courses.

GRADING:

- | | |
|----------------------------|-----|
| 1. Pencil | 10% |
| 2. Colored pencil (Prisma) | 10% |
| 3. Ink | 10% |

- 4. Magic marker 20%
- 5. Water color 20%
- 6. Final project (Collage\multimedia) 30%

150407121 BASIC DESIGN 1:

3 Credit hours, (1+6), Prerequisites: 150407101 or Concurrent

COURSE DESCRIPTION:

This course seeks to introduce the architectural design principles, methods, form creation and artistic and architectural sense. This is done through designing and analyzing 2D and 3D forms and compositions. The students express their main concepts through abstract geometric forms by means of models and then converting it to architectural drawings, and vice versa. The exercises presented to the students aim at developing their abilities to connect any concepts to the actual practical functions through drawings that deal with the designed forms and the related architectural plans.

COURSE LEARNING OUTCOMES:

1. Attaining an ability to apply the aesthetic principles of conceptualizing, designing and realization buildings.
2. Exploring the abstract qualities and the basic visual characteristics of architecture
3. Breaking down the grammar of architecture into elements, themes, and principles.
4. Designing strategies to present an engaging introduction to elements, principles and concepts in architectural design.
5. Developing the freshman students' abilities for architectural design.

GRADING:

Attendance and participation
Projects' final submission
Development and progress during studio

150407122 BASIC DESIGN 2:

3 Credit hours, (1+6), Prerequisites: 150407121

COURSE DESCRIPTION:

This course deals with more complicated design problems. Discussing the concepts of inclusion, composition, spatial relations, measurements, and construction. Focusing on the relation between the abstract geometric forms, which represent the concept and the actual architectural forms, spaces and functions. The student will learn the different methodologies used in the design process and for expressing their concepts and the symbolism or message intended by the design

COURSE LEARNING OBJECTIVE:

- 1) Increase student's visual perception and develop student's sensitivities to spatial relationships.

- 2) Help the students to develop natural understanding of visual concepts.
- 3) Introduce students to the principles and processes of sequencing of exercises emphasizing development of basic skills, ideas, and techniques used in the design of simplified architectural projects.
- 4) Applying basic design principles.
- 5) **Using basic 2D elements (lines and planes) for formulating 3D forms and architecture.**
- 6) Learning "control over the space" because architectural design produces a variety of spaces.
- 7) Stimulating ideas in the mind of students to use the spaces for various architectural uses.
- 8) **Understanding geometrical forms and their use as space creator.**
- 9) **Understanding what it means to apply the term "sculptural" to architecture.**
- 10) **Introducing concepts of "Sculpturizing architecture" and "architecturalization of sculptures".**
- 11) **Making decision about appropriate media for delivering architectural ideas and concepts.**

GRADING:

Minor Project

Major Project

150407102 COMPUTER APPLICATIONS IN ARCHITECTURAL DESIGN (1):

2 Credit Hours (0+6), Prerequisites 1104071220 or concurrent

COURSE DESCRIPTION:

This course is an introduction to the computer aided drafting program (AutoCAD) & preparation of 2D architectural drawings. Principally, the course presents how to operate the program in general. It provides instruction on producing drawings utilizing a computer. This course will cover the geometric constructions, editing tools, drawing organization, multi-view drawings, dimensioning techniques, plotting, and blocks.

COURSE LEARNING OBJECTIVE:

To provide the student with an appreciation of the capabilities and limitations of the AutoCAD program, course topics include basic AutoCAD commands and functions as well as practical applications.

The student will.....

- 1) Demonstrate understanding of basic AutoCAD terminology, and tools, focusing primarily on the drawing and modifying commands.
- 2) Demonstrate skilled use of AutoCAD software through assignments, and drawing projects.
- 3) Create, display and present complex drawings of professional quality.
- 4) Complete Basic CAD drawings, with borders, text and dimensions
- 5) Enable to create basic 2D architectural drawings in AutoCAD.

GRADING:

In-class Assignments:

Quizzes:
Mid –Term Exam:
Final project:

150407211 COMPUTER APPLICATIONS IN ARCHITECTURAL DESIGN (2)

2 Credit Hours (0+6), Prerequisites 150407102 or concurrent

COURSE DESCRIPTION:

The course structure focuses on 3D modeling, composition and rendering with AutoCAD 2010. The course will explore the use of computer-aided design and drafting software for the documentation of building designs. It will provide the students with the opportunity to develop their skills in producing architectural construction documents, and creating three-dimensional models using the CAD system.

COURSE LEARNING OBJECTIVE:

- 1) Become comfortable with the necessary tools and expand 3D modeling approaches with AutoCAD focusing on solids, surfaces and mesh objects.
2. Become familiar navigating, configuring and utilizing AutoCAD materials.
3. Understand environmental factors such as sun and sky and translate the model into several rendered images.

GRADING:

In class assignments
Quizzes
Mid exam
Final project

150407221 ARCHITECTURAL DESIGN (1):

4 Credit Hours (1+9), Prerequisites 150407122

COURSE DESCRIPTION:

This course capitalizes on the basic architectural elements and principles taught during the first year in order to analyze and design architectural spaces and forms as complete architectural projects with actual functions. It aims at training the students to develop their architectural sense and to use specific methodology that leads to design evolvement and development. This methodology can be summarized as following: Case-study analysis; programme design; site analysis; conceptual thinking (2D and 3D); design development and design drawings.

COURSE LEARNING OBJECTIVE:

1. To know how to transform the knowledge gained in the first year of architectural elements and principles into tools that can help you to design architectural space and form with specific functions. This can be achieved through
2. developing your sense of scale and dimension(you should be able to know what 4m*4m*3m space feels like);
3. Developing your sense of architectural composition and proportion to create useable and enjoyable architecture;

4. Developing your sense of space and place (what a room means, what a corridor means; what a meeting hall means in architectural terms);
5. Developing your architectural vocabulary and related terminology (speak like an architect!) to describe the spaces and volumes you analyze and design.
6. Creating and developing your perception of the site and its influence on your design;
7. Developing your sense of in-door and out-door spaces, and the relationship between them.

1.

GRADING:

Design phase 1: The formation of knowledge base contains understanding the nature of project and design theories, Site analysis, 3 case studies analysis, programming, functional requirements, and spatial relationships (Read carefully, interpret, analyze, and evaluate).

Design phase 2: conceptual thinking and design synthesis.

Sketch design 1.

Design phase 3: Design development 1.

Sketch design 2.

Design phase 4: Design development 2.

Final design phase: final Design submission

150407222 ARCHITECTURAL DESIGN (2):

4 Credit Hours (1+9), Prerequisites 150407221

COURSE DESCRIPTION:

The basic architectural principles used in designing and analyzing the building as a complete architectural product with actual functions. It aims at training the students to develop their architectural designing sense and to use a methodology as a reference in the design process and to know how to implement the use of geometric shapes and free forms in the design.

COURSE LEARNING OBJECTIVE:

1. Students will focus on the metaphoric and conceptual aspects of architectural product as well a synthesis of the many dimensions of architectural environments.
2. Developing your sense of architectural composition and proportion to create useable and enjoyable architecture;
3. Creating and developing your perception of the site and its influence on your design;
4. Developing your sense of in-door and out-door spaces, and the relationship between them.

1.

GRADING:

Design phase 1: The formation of knowledge base contains understanding the nature of project and design theories, Site analysis, 3 case studies analysis, programming, functional requirements, and spatial relationships (Read carefully, interpret, analyze, and evaluate).

Design phase 2: conceptual thinking and design synthesis.

Sketch design 1.

Design phase 3: Design development 1.

Sketch design 2.

Design phase 4: Design development 2.

Final design phase: final Design submission

150407321 ARCHITECTURAL DESIGN (3)

4 Credit hours, (1+9), Prerequisites: 150407222

COURSE DESCRIPTION:

This course focuses on design buildings on a complex scale of functions and site using the comprehensive logical design method to integrate different functions taking into consideration, environmental, economical, behavioral and structural factors. Expression and language of design will be in terms of values, images, patterns, systems of circulation and space flow through two major projects.

COURSE LEARNING OBJECTIVE:

This course focuses on design buildings on a complex scale of functions and site using the comprehensive logical design method to integrate different functions taking into consideration, environmental, economical, behavioral and structural factors. Expression and language of design will be in terms of values, images, patterns, systems of circulation and space flow through two major projects.

1. **Research Skills** – Ability to employ basic methods of data collection and analysis to inform all aspects of the programming and design process.
2. **Critical Thinking Skills** –Capacity to define strategies for problem solving, conceptual development and poetic expression at all levels of the design process of a building complex
3. **Design Skills**
 - a. Ability to apply basic organizational, spatial, structural, and constructional principles to the conception and development of interior and exterior spaces, building elements, and components.
 - b. Capacity to develop structured arguments about design intentions and the means to communicate them effectively, especially with regard to materials and construction.
 - c. Capacity to solve different circulation systems (Vehicles, users circulation - indoor and outdoor)
 - d. Capacity to deal with internal designs
 - e. Capacity to deal with Indoor/outdoor spatial composition
4. **Graphic Skills** – Ability to employ appropriate representational media, including computer technology, to convey essential formal elements at each stage of the programming and design process.

GRADING:

Design phase 1: The formation of knowledge base contains understanding the nature of project and design theories, Site analysis, 3 case studies analysis, programming, functional requirements, and spatial relationships (Read carefully, interpret, analyze, and evaluate).

Design phase 2: conceptual thinking and design synthesis.

Sketch design 1.

Design phase 3: Design development 1.

Sketch design 2.

Design phase 4: Design development 2.
Final design phase: final Design submission

150407322 ARCHITECTURAL DESIGN (4)

4 Credit hours, (1+9), Prerequisites: 150407321

COURSE DESCRIPTION:

This course seeks to teach the students design buildings on broader scale of philosophical and intellectual bases. The aim is mainly to understand how contemporary schools of thinking influenced the formation of forms and the built environment through two projects.

COURSE LEARNING OBJECTIVE:

1. **Research Skills** – Ability to employ basic methods of data collection and analysis to inform all aspects of the programming and design process.
2. **Critical Thinking Skills** –Capacity to define strategies for problem solving, conceptual development and poetic expression at all levels of the design process of a building complex
3. **Design Skills**
4. Ability to apply basic organizational, spatial, structural, and constructional principles to the conception and development of interior and exterior spaces, building elements, and components.
5. Capacity to develop structured arguments about design intentions and the means to communicate them effectively, especially with regard to materials and construction.
6. Capacity to solve different circulation systems (Vehicles, users circulation - indoor and outdoor)
7. Capacity to deal with internal designs
8. Capacity to deal with Indoor/outdoor spatial composition
9. **Graphic Skills** – Ability to employ appropriate representational media, including computer technology, to convey essential formal elements at each stage of the programming and design process.

1.

GRADING:

Design phase 1: The formation of knowledge base contains understanding the nature of project and design theories, Site analysis, 3 case studies analysis, programming, functional requirements, and spatial relationships (Read carefully, interpret, analyze, and evaluate).

Design phase 2: conceptual thinking and design synthesis.

Sketch design 1.

Design phase 3: Design development 1.

Sketch design 2.

Design phase 4: Design development 2.

Final design phase: final Design submission

150407421 ARCHITECTURAL DESIGN (5)

5 Credit hours, (1+12), Prerequisites: 150407322

COURSE DESCRIPTION:

This course seeks to teach the students the design of complex group of buildings within an urban context of a related urban fabric such as locations in central urban areas or in other locations where an urban design practice is needed prior to the design of individual buildings. The course employ a professional approach where the brief and requirements of the project are formulated by the students as a result of existing architectural and socio-economic analysis of the study area.

COURSE LEARNING OBJECTIVE:

1. Provide students an understanding of the requirements, factors, regulation roles, and issues that influence the architectural mixed use and high-rise hotel building design project in a complex urban context in Jordan.
2. Present students' topics related to mixed-use and high-rise hotel building design developments projects to acquire experience by dealing with urban context: documentation, analyzing, and understanding its evolution.
3. Encourage students to freely converse, question and analyze the topics of the mixed-use and high-rise building design project.
4. Develop students' ability to use different ways of design thinking confidently as a generator of architectural design program, spatial concepts, schematic design, design development, final and detailed design product.
5. Apply the environmental considerations into their design projects; for example, material selection, life cycle impacts, energy needs, orientation, local specific environmental concerns (if any)
6. Engage students in critical thinking design process by using inductive, deductive and abductive (process of inference to the best explanation) reasoning; and using analysis synthesis design cycle to structure the design knowledge.
7. Enhance the students' ability in selecting, describing, interpreting, and evaluating design precedents.
8. Develop the students' skills and enhance their abilities to recognize, analyze and reinforce spatial structure in an urban context.
9. Enhance the students' intellectual skills by developing the design concept that addresses issues and opportunities at the urban scale, and critically synthesis urban site conditions toward the development of innovative spatial experience.
10. Develop the students' graphical thinking and communication skills in interpreting the design concept into spatial experience as it relates to urban design.
11. Develop the students' skills to evolve the conceptual drawings into mature technical documentation.

GRADING:

Design phase 1: The formation of knowledge base contains understanding the nature of project and design theories, Site analysis, 3 case studies analysis, programming, functional requirements, and spatial relationships (Read carefully, interpret, analyze, and evaluate).

Design phase 2: conceptual thinking and design synthesis.

Sketch design 1.

Design phase 3: Design development 1.

Sketch design 2.

Design phase 4: Design development 2.
Final design phase: final Design submission.

150407422 ARCHITECTURAL DESIGN (6)

5 Credit hours, (1+12), Prerequisites: 150407421

COURSE DESCRIPTION:

This course seeks to teach the students advanced design of buildings with problems of complex function, structures, acoustics, heating and ventilation. Students are expected to apply knowledge acquired in related subjects; (building construction and environmental physics), to the design process. The project could include the re-developing of urban or historic areas into the whole master plan.

COURSE LEARNING OBJECTIVE:

1. Provide students an understanding of the elements, requirements, factors, regulation roles, and issues that influence the architectural urban design housing project in Jordan.
2. Present students' topics related to architectural urban design housing developments to acquire experience by dealing with urban context: documentation, analyzing, and understanding its evolution.
3. Encourage students to freely converse, question and analyze the topics of the architectural urban design housing project.
4. Develop students' ability to use different ways of design thinking confidently as a generator of architectural design program, spatial concepts, schematic design, design development, final and detailed urban design housing product.
5. Engage students in critical thinking design process by using inductive, deductive and abductive (process of inference to the best explanation) reasoning; and using analysis synthesis design cycle to structure the urban design knowledge.
6. Enhance the students' ability in selecting, describing, interpreting, and evaluating design precedents.
7. Develop the students' skills and enhance their abilities to recognize, analyze and reinforce spatial structure in an urban context.
8. Enhance the students' intellectual skills by developing the design concept that addresses issues and opportunities at the urban scale, and critically synthesis urban site conditions toward the development of innovative spatial experience.
9. Develop the students' graphical thinking and communication skills in interpreting the design concept into spatial experience as it relates to urban design.
10. Develop the students' skills to evolve the conceptual drawings into mature technical documentation.

GRADING:

Design phase 1: The formation of knowledge base contains understanding the nature of project and design theories, Site analysis, 3 case studies analysis, programming, functional requirements, and spatial relationships (Read carefully, interpret, analyze, and evaluate).

Design phase 2: conceptual thinking and design synthesis.

Sketch design 1.

Design phase 3: Design development 1.

Sketch design 2.

Design phase 4: Design development 2.

Final design phase: final Design submission.

150407232 BUILDING MATERIALS

3 Credit hours, (2+3), Prerequisites: 110103107

COURSE DESCRIPTION:

This course is divided into two parts: theoretical and practical. The theoretical part contains an overview of the various materials used in construction. The students will learn about material and their physical, chemical and mechanical properties in addition to the product manufacturing techniques and how they relate to the properties of the various materials. Furthermore, material applications in structural and non-structural building components are explored. The practical part will include lab tests to know the different tests that can be conducted on the building materials in order to gauge their properties. The students will undertake task, and field trips to enhance their actual ability to take on real construction projects. Resulting from this course, students will gain a comparative knowledge of material properties and possible applications in construction and architecture.

COURSE LEARNING OBJECTIVE:

At the end of this semester, student should be able to:

1. Understand the construction terminology and major construction stages and it's relation to Architecture.
2. Understand the language of building materials
3. Recognize major types of construction materials, their properties including their environmental impact and reuse
4. Understand the typical and potential applications of these materials and appropriate application and performance
5. Recognize the importance of experimental verification of material properties.
6. Appreciate the importance and interrelationships between materials and methods and the relevant national building codes.
7. Understand the principles of sustainability in making building construction decisions that conserve natural and built resources, including materials selection.

GRADING:

Assignments and quizzes

Midterm exam

Final exam (presentation + written exam)

150407233 ARCHITECTURAL STRUCTURAL SYSTEM

3 Credit hours, (2+3), Prerequisites: 150407232

COURSE DESCRIPTION:

This course seeks to teach the students the skeleton construction systems from foundations to roofs, their materials, mechanisms, options, major and minor elements. It will focus also on major components of partitions, staircases, and elevators, windows and doors, insulation works.

COURSE LEARNING OBJECTIVE:

1. Understand the meaning of the Building Construction and its relation to Architecture.
2. The true value of this course to teaching construction to be gauged by the way that students apply the knowledge to their own designs in studio.
3. Understand the different architectural structural systems, reinforced concrete systems (all types), bearing walls, steel, wood, folded plates, domes, tensile structure,
4. Link Building Construction materials with architectural design.
5. Know the types of the building materials and their properties.
6. Deal with construction terminology and major construction stages.
7. Deal with types of footings, tie beams, columns, slabs.
8. Prepare students for the realities of working practice in accordance with the skills that the 'real' world of commerce or industry require of them, or should they be fostered to take a more personal line of development.

GRADING:

- Drawing for full details of all construction parts and types.
- Creating structural models to understand the drawing.
- Mid exam
- Final Exam

150407336 BUILDING FINISHING (3)

3 Credit hours, (2+3), Prerequisites: 150407233

COURSE DESCRIPTION:

This course seeks to teach the students about building finishes and its related detailing. Major finishes of floors, roofs, walls and partitions by using modern materials in paintings, metal works. It contains the finishes of building services; kitchens, bathrooms, finishes for special functions, laboratories, auditoriums.

COURSE LEARNING OBJECTIVE:

1. The purpose of this course is to give the student a basic understanding of the design, materials, and methods of finishing systems used in the building construction industry. At the completion of the course the student will be able to:
2. Manage interior decoration projects profitably.
3. Deliver quality workmanship through proper supervision and co-ordination.

4. Describe the procedures related to finishing works and identify the finishing materials.
5. Learn about windows and doors and other interior finishing details in buildings.
6. Classify, describe, prepare and apply the materials and fasteners used in conventional and modern interior and exterior finish of structures such as: roofs, doors, windows, insulation, wall and ceilings, trim, stairs and railings, decks and fences, siding and floor coverings.
7. Locate building codes and explain how they relate to finish systems. Apply exterior and interior finish to parts of a structure according to applicable codes, specifications and acceptable industry standards and practices.
8. Develop basic knowledge and skills in construction estimating, supervision, fixtures and fittings, mechanical and electrical services in architectural projects, project management and construction scheduling.

Grading

- 1) Presentation for one major type of finishing (Definitions, historical background, Sequence of construction, mechanical components, types, advantages, accessories, construction place, Jordanian code, dimensions, technical drawings, and pictures...).
- 2) Drawing for full details of all major finishing types.
- 3) Creating models to understand the finishing layers.
- 4) Mid exam
- 5) Final Exam

110407473 ARCHITECTURE AND ENERGY

COURSE DESCRIPTION:

COURSE LEARNING OBJECTIVE:

At the end of this semester, student should be able to:

1. Understand the role buildings play on energy consumption and their impact on the environment.
2. Recognize the thermo dynamic principles of building.
3. Identify the main factors that affect human thermal comfort in the built environment.
4. Understand the green energy resources
5. Identify the main techniques to achieve energy efficient buildings.
6. Know the Jordan National Building Codes & Guides that promote conserving energy in buildings.

GRADING:

150407472 DESERT HABITATION

3 Credit hours, (3+0), Prerequisites: 150407463

COURSE DESCRIPTION:

This course reviews and analyzes the ecological impact on architectural in a desert context. Traditional and vernacular design and construction influences should be reviewed at the architectural, environmental, landscape and urban planning levels. Understanding of the local and national needs is emphasized through the case studies and fieldwork.

COURSE LEARNING OBJECTIVE:

1. The course aims to increase students understanding of the impact of the environmental aspects on the building's design, thus equip the student with the knowledge needed to design environmental friendly buildings in the desert region. By the end of this course the students will:
2. Know the environmental characteristics of the desert region
3. Understand the impact of the different environmental factors on the humans' thermal comfort.
4. Identify the impact of the desert environmental factors on the urban planning of the region.
5. Recognize the characteristics of the desert region's landscaping.
6. Be acquainted with the different design elements for the buildings at the desert regions.
7. Explore the passive cooling techniques.

GRADING:

Assignments and quizzes

First exam

Second exam

Final exam (presentation + written exam)

150407424 INTERIOR DESIGN

3 Credit hours, (1+6), Prerequisites: 150407321

COURSE DESCRIPTION:

3 Credit hours, (1+6)), Prerequisites: Dep. Approval

This course seeks to teach the students the relation between the design of the architectural interior environment and human satisfaction and his perception to the space. Focusing on the compatibility between the different factors of the space such as color, style, texture, shade and shadow and selection of proper materials for roofs, floors and walls.

COURSE LEARNING OBJECTIVE:

1. The course aims to introduce the main principles of interior design to the students to enhance their design skills within interior spaces, and understand the impact of their design decisions of the interior spaces on the human comfort and perception of the interior spaces. By the end of this course the students will:
2. Understand the principles and elements of interior design
3. Know the human factors and social responsibility related to different interior spaces
4. Study the history of interior design
5. Realize the impact of colour and light on human perception of interior spaces

6. Identify the variety of finishing materials used in the interior spaces.
7. Design a variety of interior spaces applying the acquired knowledge.

GRADING:

Assignments

Final exam

150407241 HISTORY AND THEORY OF ARCHITECTURE (1)

3 Credit hours, (3+0), Prerequisites: 150407111

COURSE DESCRIPTION:

This course seeks to teach the students the evolution of early architecture during prehistoric periods. Analysis of Ancient Architecture (Mesopotamian, Egyptian, Persian, Canaanite, Phoenician, and Hittite) in Ancient Middle East. Study of the civilizations and architecture of classical periods: Greek (preceded by Aegean), and Roman (precedent by Etruscan). Theoretical discussions upon the relevance and proper use of Ancient and Classical architecture in the design of buildings and sites today.

COURSE LEARNING OBJECTIVE:

At the end of this semester, student should be able to:

1. Understand the meaning of the Architectural History and it's relation to Architecture.
2. Deal with architectural history vocabulary. (Terminology).
3. Understanding of the historical periods to develop student's analytical skills, in order to understand architecture as physical response to human need at certain time and place. (Space- time theory)
4. Understanding of the influences of Orient; Mesopotamian and Egyptian Architecture on Western Architecture; Greek and Roman. (Transmission of style and technology).
5. Integrate architectural history with students approach to develop the students' knowledge of conservation sciences and architectural heritage.
6. The true value of this course to teaching history of architecture to be gauged by the way that students apply the knowledge gained to their own designs in studio.

GRADING:

- First exam
- Second exam
- Participation
- Final Exam and project

150407341 HISTORY AND THEORY OF ARCHITECTURE (2)

3 Credit hours, (3+0), Prerequisites: 150407241

COURSE DESCRIPTION:

This course seeks to teach the students about the analytical study and development of the Religious architecture from the end of the Roman Empire through Early Christian and

Byzantine periods. The Medieval period (Romanesque and Gothic) in Social, religious, historical and cultural contexts. Influences on the development of structure and space. Analytical study of the Renaissance period. Social, cultural, scientific and economic dimensions and influences on buildings and cityscapes. The study of Renaissance architecture as a Classical representation (Classical Revival). Ornate architecture of the Baroque and Rococo periods in Europe.

COURSE LEARNING OBJECTIVE:

1. The course aims to introduce a range of theoretical issues and approaches that has been developed throughout the history of architecture From the Early Christian ages through the middle Ages, the Renaissance and Neo Classicism ages.
2. To recognize stages and periods in the evolution of architecture from the Early Christian ages to the neoclassical ages.
3. To identify different architectural styles and their salient features in the above mentioned periods.
4. To recognize the structures and materials of architectural styles of the periods discussed
5. To identify the development of these styles in response to social, political, cultural, and aesthetic changes.

GRADING:

1. First Exam
2. Second Exam
3. Final exam+ Project

150407432 ANCIENT BUILDING TECHNOLOGY

3 Credit hours, (2+3), Prerequisites: 150407343

COURSE DESCRIPTION:

This course seeks to teach the students about analysis of building techniques and the materials used in ancient building construction. Its origin and development and the factors that affected its development. The intention is to find out the sources of the materials and to consider what the ancient craftsmen used them for and why. This will include the study of the construction techniques used in prehistoric until the modern architecture. Field trips to a historic building are important in order to analyze the structural, architectural, and functional elements.

COURSE LEARNING OBJECTIVE:

1. At the end of this semester, student should be able to:
2. Deal with the techniques of setting together the fabric of ancient buildings.
3. Learn the factors affect the craft in its particular location, with certain materials and product requirements. (Gifts of Geology- Carving tools).
4. Examine the stone carving tools and techniques and to distinguish the main categories.
5. Determine and analyze the lifting techniques used to construct the ancient monumental buildings.

6. Understand the meaning of the Building Construction Techniques and it's relation to space organization.
7. Know the types of the ancient building materials and their properties.
8. Deal with ancient construction terminology and major construction stages.
9. Utilize the technical findings of this course in the erection of modern buildings.
10. Prepare students for the realities of working practice in architectural conservation and to formulate legal measures which ensure sustainable management of important sites (The true value of the course).

GRADING:

Mid. exam

- Final Exam and project
- field trip reports
- homeworks
- activities, and (Project/Paper)
-

150407465 CONSERVATION OF THE ARCHITECTURAL HERITAGE

2 Credit hours, (2+0) Prerequisites: 150407421 or concurrent

COURSE DESCRIPTION:

This course seeks to review the definition of the architectural heritage and the history of evolution for its conservation. It reviews the international efforts and organizations that are concerned about the protection of the architectural heritage on international and local level. It reviews the main principles in conservation projects.

COURSE LEARNING OBJECTIVE:

After successful completion of this course, students will be able to

1. Understand the definitions, terminology and concepts of architectural heritage conservation.
2. Understand architectural heritage by examining different categories of heritage values, and the contexts within which heritage exist, particularly in Jordan.
3. Master the process of documenting the architectural heritage using manual and digital techniques.
4. Explain the significance of the architectural heritage and the need to document, conserve, protect, and manage it.

GRADING:

1. Mid-term Exam
2. Follow-up on your project
3. Final Submission

150407361 LANDSCAPE DESIGN

2 Credit hours, (1+3), Prerequisites: 150407321

COURSE DESCRIPTION:

This course seeks to teach the students about the relation between human beings and the environment around, and how they are integrated to each other. Study of the Jordanian environment and plants. The evolution of modern landscape. Design and planning of site with consideration to sites influences on the forms of buildings ordering systems, aspects of perception and spatial development are bases for project design.

COURSE LEARNING OBJECTIVE:

By the end of this course the students will be able to:

- 1) Identify and use landscape elements and principles to plan and design outdoor spaces using landscape graphics;
- 2) Approach landscape as part of a complex built and natural environment;
- 3) Understand, identify and evaluate the different dimensions of landscape in order to design a community-related, environment-based, sustainable landscape project. The dimensions of landscape are:
 - The morphological dimension;
 - The perceptual dimension;
 - The social dimension;
 - The visual dimension;
 - The functional dimension;
 - The temporal dimension.

GRADING:

1. Attendance and group work efficiency
2. Project follow-up
3. Final submission and exam

150407444 LOCAL CONTEMPORARY ARCHITECTURE

3 Credit hours, (3+0), Prerequisites: 150407343

COURSE DESCRIPTION:

This course seeks to teach the students about the evolution of architecture from the industrial revolution up to the present. Analysis covers the impact of political, social, economic, and cultural changes on architecture. Influences and ideologies of architectural schools and certain pioneers on architecture. Cultural, technical, and territorial transformations during the 19th and the first quarter of the 20th centuries.

COURSE LEARNING OBJECTIVE:

1. To develop the students' knowledge of the history and evolution of the contemporary architecture in Jordan.
2. Student are expected to be familiar of how the changes in worldview that have altered the course of Western Architecture as well as the works of international practitioners, theorists and themes influenced the course of evolution of local contemporary architecture.
3. To develop and refine the students' skills in critical thinking, reading, and discussion.

4. To develop the students' research skills and their ability to synthesis and synchronize ideas.
5. To develop the students' skills in visual analysis, oral and written communication.

GRADING:

First Exam :

Second Exam:

Paper/ Project:

Final Exam:

150407342 ISLAMIC ARCHITECTURE

3 Credit hours, (3+0), Prerequisites: 150407241

COURSE DESCRIPTION:

This course seeks to teach the students about the development of Architecture in the Islamic world from the dawn of Islam till recently. Analysis of elements, methods and functions of Islamic architecture including contemporary development in various Islamic regions. Emphasis on recent experiments which intend to achieve the continuity of Islamic architecture.

COURSE LEARNING OBJECTIVE:

1. Understand the evolvement and development of Islamic architecture;
2. Appreciate the importance of context (cultural, religious, environmental, economic, etc) in the evolution and development of Islamic architectural style.
3. Examine the influence of the context on architecture.
4. Gain an ability to analyze the development of architectural space and form, and effects of historical and geographical factors on it.
5. Gain knowledge of the special characteristics of the Islamic City.
6. Comprehend the effects of cultural context on the formation of architecture.
7. Elevate architecture from the physical level to a spiritual one through investigating the meanings behind the different forms; either in architecture or internal design of the buildings.
8. Critically analyze architecture, and to use the solutions that were established in historical buildings in their own designs.
9. To develop the students' research skills and their ability to synthesis and synchronize ideas.

GRADING:

First Exam :

Second Exam:

Paper/ Project:

Final Exam:

150407463 URBAN DESIGN AND PLANNING

3 Credit hours, (3+0), Prerequisites:

COURSE DESCRIPTION:

This course seeks to provide the students about basic theories, principles and skills involved in planning the physical environment. Its main objective is to provide students with a basic understanding of physical planning, its concepts and its impacts on the socio-economic issues of people. The course is partly theoretical and partly taught in a studio format in which the students learn by undertaking real or applied problems.

COURSE LEARNING OBJECTIVE:

1. To understand what is planning, the difference between planning and non planning, and the central questions of planning.
2. Understand the different types of planning, the authority and expertise, the planning scope and limits.
3. To understand the history of urban planning by studying the evolution of the city and the process of urbanization.
4. Comprehend the planning process, tools of planning and the different fields of planning.
5. To understand what is urban design and the different elements, theories and principles related to it.
6. Develop a comprehensive overview of the discipline that started with the user and included the current trends.
7. Apply the urban planning and design theories, roles, concepts, and models to create a physical design.
8. To develop and refine the students' skills in critical thinking, reading, and discussion.
9. To develop the students' research skills and their ability to synthesis and synchronize ideas.
10. Develop the students' skills in visual analysis, oral and written communication.

GRADING:

First Exam :

Second Exam:

Paper/ Project:

Final Exam:

150407361 HOUSING

2 Credit hours, (2+0), Prerequisites

COURSE DESCRIPTION:

Housing is a fundamental aspect of human life. It is a key factor in delivering healthy and attractive communities as it serves to define the life space of individuals. Without appropriate shelter, people cannot meet their basic needs and participate adequately in society.

This course intends to introduce the subject of housing in a holistic view that provides architectural students with the basic knowledge they might need about the subject. It investigates the various concepts, theories and practices related to housing and residential use to help students comprehend this vital field of architectural research and practice.

COURSE LEARNING OBJECTIVE:

1. To understand the concept of Housing from different perspectives and point of views, particularly architectural.
2. To understand the different housing typologies.
3. To recognise different housing aspects related to design, behaviour, socio-cultural, planning, and environment.
4. Comprehend alternative housing theories, as well as principles of residential layout.
5. Develop a comprehensive overview of the housing discipline.
6. To develop and refine the students' skills in critical thinking, reading, and discussion.
7. To develop the students' research skills and their ability to synthesis and synchronize ideas.

GRADING:

Midterm Exam :

Project:

Quizzes, and exercises :

Final Exam:

VISUAL PERCEPTION OF ARCHITECTURAL FORM 0407442

3 Credit hours, (3+0) , Prerequisites: Dep. Approval

COURSE DESCRIPTION:

The course covers human perception of form (2-dimensional and 3-dimensional) Focuses on visual Perception of architectural form including objects, spaces and surfaces. It also includes sensory, format and symbolic aspects of architectural form.

COURSE LEARNING OBJECTIVE:

1. To develop the students' knowledge of the basics of visual perception and the different theories that explain it.
2. Student are expected to become familiar of issues related to perceptual organization and principles of visual thinking and capable of applying this type of knowledge in the field of architecture.
3. To develop and refine the students' skills in critical thinking, reading, and discussion.
4. To develop the students' research skills and their ability to synthesis and synchronize ideas.
5. To develop the students' skills in visual analysis, oral and written communication.

GRADING:

First exam

Second exam

Paper / Project + Participation

Final exam

110401369 SURVEYING AND BUILDING DOCUMENTATION**3 Credit hours, (1+6), prerequisite 150407112****COURSE DESCRIPTION:**

This course seeks to teach the students about the basic concepts of surveying and architectural documentation and their different methods and techniques. Presenting the different archiving systems according the existing international standards. Explaining the role of new technologies in surveying and documentation, through introducing the development and evolution of the different surveying and architectural documentation methods and techniques. Through a series of exercises, the students will be able to perform practical applications using surveying and documentation instruments, methods and techniques and field studies. This also includes the process of preparing the different architectural and engineering documentation drawings.

COURSE LEARNING OBJECTIVE:

By the end of this course the student must be able to:

1. Use modern surveying instruments and collect field notes;
2. Classify errors in surveying measurements based on their sources. Determine their magnitude and apply procedures for balancing the measurements;
3. Design and execute the course of leveling and determine the correct elevations of intermediate points;
4. Design the course of a traverse, calculate the bearings and azimuths of the sides and calculate the adjusted coordinates of the stations;

GRADING:

Mid Term Exam

Report

Final Exam

**150401313 REINFORCED CONCRETE AND STEEL STRUCTURES FOR
ARCHITECTURAL STUDENT****3 Credit hours, (3+0) , Prerequisites: 150407335 & 150401313****COURSE DESCRIPTION:**

Design of reinforced concrete members subjected to moment, shear, and axial forces. Design of continuous beams, and one-way slabs. Short columns, single and wall footings, Load cases, analysis and design of tension and compression steel members.

COURSE LEARNING OBJECTIVE:

By the end of this course, students will be able to:

1. Analyze and design reinforced concrete beams, columns and slabs for flexure, shear and axial load in accordance with the provisions of ACI 318.
2. Analysis and design of single footings.
3. Analysis and design of tension and compression steel members.

GRADING:

First Exam

Second Exam

Final Exam

Other

150401214 ENGINEERING MECHANICS

3 Credit hours, (3+0) , Prerequisites: 150102101 & 150108101

COURSE DESCRIPTION:

Vectors, force systems 2D, equilibrium of particles and rigid bodies , structures (trusses and frames), distributed forces (centroids and centers of mass), internal forces , stresses, strains, bars with axial loads, shafts in torsion

COURSE LEARNING OBJECTIVE:

Structural Mechanics is a foundational course in engineering mechanics and involves the application of mathematical and physical principles to solve engineering problems. The primary objectives of the course are to

1. Develop a basic understanding of forces and the effects they produce on particles and rigid bodies that are at rest.
2. Evaluate and satisfy conditions of static equilibrium. Course topics include vectors, forces, moments, free-body diagrams, equilibrium, simple structures (trusses/frames), distributed forces, beams (internal forces), centroids and centers of gravity, and moments of inertia, determine the stresses, strains, and displacements in structures and components due to the loads acting on them. An understanding of these topics is essential for the safe design of all types of structures such as: buildings, bridges, electric-power transmission towers, cables, machines, airplanes, ships, trains, chains, etc.

GRADING:

First Exam

Second Exam

Final Exam

150401313 STRUCTURAL ANALYSIS FOR ARCHITECTURAL STUDENTS

3 Credit hours, (3+0) , Prerequisites: 150401214

COURSE DESCRIPTION:

Structural forms, types of supports and determinacy, reactions, determinate structures, plane trusses, shear and moment diagrams for beams and frames, deflections.

COURSE LEARNING OBJECTIVE:

1. Understand basic structural engineering concepts
2. Determine magnitude of different types of loads in accordance to the related codes.
3. Idealization of structures and loads in relation with real structures.
4. Determine forces in truss structures using various methods.
5. Determine the internal forces for beams, frames and arches.
6. Formulate the related equations and draw the shear force and bending moment diagrams for beams and frames.
7. Determine deflection using moment area theorems and conjugate beams.
8. Analysis of slab.

GRADING:

First Exam

Second Exam

Final Exam

other

150407471 LIGHTING AND ACOUSTICS

3 Credit hours, (2+3) Prerequisites: 150407322

COURSE DESCRIPTION:

The course concentrates on the physical characteristics of sound waves, propagation of sound, intensity, sound power units and measurement equipment's, standing wave, reverberation time, sound absorption materials, speech privacy, noise and vibration, applications in architecture. The lighting part concentrates on effect of light on architecture, color and light, the functional requirements of lighting, measurements and calculation of day lighting and artificial lighting, lighting sources and energy conservation, and application in architectural

150407471 GRADUATION PROJECT REPORT

2 Credit hours, (1+3) Prerequisites: 150407422, 150407343, 150407423, student should successfully finish 130 hours at least

COURSE DESCRIPTION:

This course seeks to stimulate the students towards various practical approaches in choosing project topics. Orientation of student to adapt and conduct a total methodology in programming project requirements, goals and objectives, the analysis and synthesis aesthetics, and the continuous evaluation of various factors of aesthetics form, philosophy of project, upgrading of students ability of technical writing.

150407523 GRADUATION PROJECT DESIGN

6 Credit hours, (0+18) Prerequisites: 150407522

COURSE DESCRIPTION:

This course seeks to teach the students about the presentation of final Design sheets and requirements for graduation project. The adaptation and development of design concept the final development in coordination with student supervisor, and submission the course includes various stages with Jury evaluation format, the project require concentration on architectural, structural, and environmental integrated solutions. Presentation of complete set of projects drawings including three-dimensional presentation and model building

Course Learning Objectives

1. To develop the students' intellectual skills of integrating knowledge acquired through the different previous courses to inform the different phases of the design.
2. To develop the students' skills in representing their design ideas in a professional design project.

GRADING:

Phase One
Phase Two
Phase Three
Phase Four

150407423 WORKING DRAWINGS

3 Credit hours, (0+6), Prerequisites: 150407336

COURSE DESCRIPTION:

This course seeks to teach the students about the production of complete set of working drawings sheets in order to expose students to actual and practical projects, and facilitates understanding of architectural details by contractors during the construction stage. Individual and group works experience will be enhanced through some projects on studio.

COURSE LEARNING OBJECTIVE:

The purpose of this course is to give the student a basic understanding of the working drawing. By the end of this course the student will be able to:

1. Produce architectural working drawings for obtaining construction permits.
2. Prepare complete set of architectural drawings manually and by using the Auto CAD.
3. Know the standards for working drawings.
4. Draw the architectural details for the different components of the projects.
5. Know the different layers of the working drawings.

GRADING:

Draw complete set of working drawing for 2 different projects (cover page, titles, contents, site plan, areas, deck slope, ground floor plan, second floor plan, furniture plans, 4 elevations, 2 sections, axis columns layout, staircase details, 2 wall sections details, and schedules)

150407345 THEORY AND METHODS OF ARCHITECTURAL DESIGN

1 Credit hour, Prerequisites: 150407321 or concurrent

COURSE DESCRIPTION:

Architecture is a thoughtful art that involves knowledge of space and form. It has a complex theoretical framework. This theoretical framework is based on the ideology of the architect, often differing from one architect to another. Design theory continually changes as ideas evolve and respond to previous architectural movements and the rest of the world.

Architects often employ design methods to help them find more creative forms. These methods make it possible to break free of the traditional forms and established paradigms. At the same time it is necessary to allow for a functional and systematic design concept to take shape. This course focuses in depth on the design theories and methods that have decisively shaped current architectural practice

COURSE LEARNING OBJECTIVES

1. Provide students with necessary knowledge and understanding of design theory at various levels and present architectural design methods.
2. Provide a brief introduction to design theories and methods, and illustrate how design theory is applied
3. Describe how the students use different types of design methods to create unique outcomes in the architectural design process
4. Describe how the students develop and apply conceptual tools to assist in the design process (idea generation techniques).
5. Define New architectural design terminology
6. Introduce the most recent forms of architectural styles and theories like modernism, structuralism, post-modernism, de-constructivism structuralism and phenomenology as philosophical directions influencing architecture.

GRADING:

- 1) First exam
- 2) Poster presentation
- 3) Second exam
- 4) Final exam

150407552 QUANTITY SURVEYING

2 Credit hour (2,0), Prerequisites: 150407451 or concurrent

COURSE DESCRIPTION:

COURSE LEARNING OBJECTIVES

At the end of this course, the student will

1. understand the principles of cost estimating; the quantity Take off and how to determine the quantity of materials needed to complete a construction project; and how to put costs to the estimate

2. Understand the role and the importance of estimating to the performance of General Contractors and Construction Managers.
3. Demonstrate an understanding of the professional requirements of a good estimator.
4. Be able to understand how the overall construction budget is generated;
5. Demonstrate an understanding of an appropriate estimating technique. Several techniques will be discussed in class will be:
6. Estimate volume of cut and fill necessary to reach proper elevation
7. Determine the volume of soil that must be excavated.
8. Determine quantities of other materials used in foundation systems (leveling and compacting, polythene sheets under PCC footings, PCC footings, RCC footings), Neck of columns, RCC tie-beams and beams, Isolation Underground work, Backfilling, RCC Flooring, Rcc columns, RCC slabs, Masonry works, Building Finishing works.
9. Understand and practice how to tap into the power of computer spreadsheets and how the spreadsheets can be used to automate estimating functions.

GRADING

- 1) Quantity surveying for 2 real projects.
- 2) Mid Exam
- 3) Final exam

150407451 SPECIFICATION AND CONTRACTS

2 Credit hours, (2+0) Prerequisites: 110402450

COURSE DESCRIPTION:

This course seeks to teach the students about legal status of building contracts among other building construction documents such as construction drawings, specifications and quantities tables, focus of relations between clients and contractors and engineer and responsibilities of each. Study working and labor laws and related governmental and private institutes.

COURSE LEARNING OBJECTIVES

At the completion of this course, the student will:

1. Understand legal elements of a construction contract; describe the relationships between the owner, contractor, and architect, as well as their roles, duties, and responsibilities.
2. Define and describe the various types of contracts and specification methods.
3. Understand the purpose of specifications, their role and need.
4. Outline the principles of specification writing, write simple specification, and explain the use of computerized specifications.
5. List the 16 major construction divisions and write their general specifications.
6. Outline the contents and relationship between the documents, which make up the Construction Documents.
7. Understand the contract terminology.
8. Understand the rights and responsibilities for each contract party.
9. Study how to recognize the possibilities of construction disputes.

10. Understand potential possibilities of construction disputes and how to resolve them according to the contract
11. Demonstrate the ability to review and make construction contracts and specifications.
12. Learn contract administration such as claims and disputes, change orders and progress payments.
13. Understand how to administrate the contract.

GRADING

- 1) Report about writing full specification for 2 major construction finishing.
- 2) First Exam.
- 3) Second exam.
- 4) Final Exam.

Index 2:

Elaboration of a Degree Profile and Program: Mohammed 1st University

NB: Preparation of such a degree profile and programme was based on the national teaching programme of the architecture school of Casablanca for the academic year 2014-2015, since there is no degree programme of architecture at Mohammed 1st University (UMP),

1. Elaboration of a Degree Profile

1.1. General Description

Architects conceptualize, plan and develop designs for the construction and renovation of commercial, institutional and residential buildings. The studies will be based in the studio for design work, tutorials and critiques. The student will attend lectures and computer aided design tutorials, has essays to write, site visits to go on and visits to buildings and places of interest and work en internships.

The candidates have to follow training course (traineeship 3x 1 month) that exposes them to architect work. These traineeships provide opportunities for hands-on building projects; others offer specialist areas of study or have developed strengths in particular disciplines such as: sustainability, town planning, technology, or management. Skills in problem solving and team working are also developed through internship programme.

In order to receive the "Diploma of architecture" the candidate must prepare a final project during one year. Then, He must present his project to a jury composed of architect experts and lecturers.

Vision

The programme intends to provide training in professions linked to architecture and urban planning at the national and international level.

Missions

- Training of architect
- Research and development
- Expertise and advice
- Cultural and scientific exchange
- Continues training and profession resources

General Objectives

- Providing effective teaching with respect of national training curricula of architecture
- Disseminating knowledge and promote quality architectural and urban production
- Providing continuous training.

The training in architecture is characterised by the teaching of the theory of architectural and urban projects practices. The main objective of this course is to train architects capable of exerting diverse professional practices and ready to fulfill new missions in order to meet sociological and ecological complexities of the world around them.

1.2. Learning outcomes set out in the Curriculum

The student graduated from the school of architecture must:

- Have conceptual ability and creative potential
- Be innovative and aware of technological knowledge and skills
- Be able to analyse and capable of mastering contextual elements
- Be operational, competitive and show management skills of the profession
- Have critical faculties and having abilities (skills) in providing appropriate solutions
- Be equipped with communication skills to interact with multidisciplinary teams.
- Internalize the rules of ethics and professional practice. (Internalize ethical and deontology rules needed for his professional practice.)

1.3. The diagram of the study process

Architecture is a wide ranging discipline based upon a large body of design, technical, cultural, and professional knowledge, in which candidates develop a high level of skill. Learning to master the architectural process, through successive projects, is a lengthy process. The route to qualifying as an architect in Morocco is a combination of academic studies at a university and practical experience. It involves a five year university training and a minimum of one year experience before final qualification. This includes three parts of study.

This proposed degree profile is to be a base for a B.A. degree and Master degree of architecture and it comes in 12 semesters: 3 years + 2 years +1 year. It is designed to prepare students for careers in architecture.

Part 1 (Cycle 1): The first part of three year undergraduate degree enables the student to acquire the fundamental theory of architectural practices and to develop a broad range of skills and architectural understanding. The candidate also gains further qualifications in specialist related fields such as planning, urban design, or conservation.

Part 2 (Cycle 2): + 2 year University degree: Master Degree of Architecture

These two full-time years enhance architectural knowledge and project complexity. There will be opportunities for students to carry out specialist study and research, possibly abroad.

These two parts lead the final year work by covering a range of skills and themes.

Part 3: The final qualifying examination in professional practice and management will be obtained following 12 months of practical experience in which the student has to present a personal work (final project).

The candidate begins the final year by exploring architectural ideas in a real world. This year allows the student to synthesize and apply knowledge gained throughout the last five years, to develop his personal areas of interest, to prepare his professional life and to cultivate potential ideas and research which aims to enable him to position himself relative to the wider culture and debates at an advanced level in the discipline of architecture. The candidates will be assessed on the following elements: 12 months of practical experience, Professional C.V. and career evaluation, Case study and final oral examination.

Having gained the parts 1, 2 and 3 qualifications the graduate will have the ability to practice liberal profession of architect and He can register as an architect with the Architects Registration Board (Conseil de l'Ordre des Architects: COA).

1.4. Occupations and the potential fields / sectors for the employment of graduates

The architect tasks are multiple; it goes from the design and construction of buildings to assistance in project management and interventions in the city and the territory. He must master the representation in space, be able to design an architectural project and to carry out its implementation.

Demand for architectural services

Depending on the task, an architect will work with engineers, landscapers, town planners, economists, sociologists and artists.

The architects remain predominantly liberal and a group of professional societies is becoming increasingly frequent. He can be contracted by small firms, by individuals, business leaders, institutional owners such as insurance companies as well as by real estate professionals and housing associations.

The architect could also work in the public sector as an employee for the State or local authorities, or working as a private employee for architectural offices, urban planning,

interior architecture, design, engineering design offices, building firms and public works and development companies.

In the construction industry, we have to keep in mind that demand for architects depends largely on the trends that affect this field and the demand for architectural services. We believe that over the next few years, the economic growth is expected to boost employment in most construction sectors. Employment in this industry is expected to increase during the period (2015-2020).

The main reason for this growth in demand for architectural services will be the expansion in the range of services provided by architects, such as urban design, preliminary studies, management and project co-ordination consulting, feasibility studies and facilities planning. Consequently, architects have assumed an increasingly important role in understanding the impact of the environment on individuals, the improvement of building performance and the design of special environments.

2. Elaboration of a Programme

2.1. Description of the courses/units (plan of studies), length

According to Moroccan Higher Educational System for Architecture, this will be a 6-year programme of 50 modules.

The first cycle of three years (cycle Licence: Semesters S1 to S6)

The courses allow the acquisition of:

- Fundamental knowledge of cultural, scientific and technical architectural, work the awakening of the sense of observation and creativity.
- Major concepts and methods of spatial analysis.
- Project design process at different situations level, uses, techniques and temporality.

The second cycle (Master: semesters S7 to S10)

Students will develop a high level of skill. This prepares students to make sound professional judgements in difficult, often pressurised situations. The candidate turns knowledge into ability. The student will be confronted to critical thinking related to design of architectural and urban project. He will deepen technical, managerial and scientific knowledge and master of methods and knowledge required for the practice of project. Therefore, the student will be prepared for different modes of the profession practices.

The graduation year (semesters S11 to S12)

To obtain the qualification of architect, the student has to follow one extra year in which he has to present a personal work (final project). As consequence the graduate will have the ability to practice liberal profession of architect.

This final year is dedicated to exploring architectural ideas in a real world. This year allows the student to synthesize and apply knowledge gained throughout the previous five years of study to come up with a solution to a specified architectural problem, to develop his personal areas of interest, to prepare his professional life and to cultivate potential ideas and research which aims to enable him to position himself relative to the wider culture and debates at an advanced level in the discipline of architecture.

University curricula

The architecture curricula spread over six academic years, two cycles of 5 years and one extra year for graduation. The academic year is composed of two semesters running from mid September to mid January and February to late June and the courses are organised in Modules. Depending on the year, the week includes around 24 hours of teaching. The number of hours during the semester varies from 300 to 400 hours (**30-35 credits**), depending on semesters and the nature of the module.

- 2600 hours for part 1 (+2 months of placement)
- 1400 hours for the Master degree (+1 month of placement)
- 360 Hours of mentoring of coaching for the final project.

NB: The number of Specific or generic Competence correspond to the number given in the Meta-profile (please see references below)

Core Cluster : Design Abilities

Courses	Teach. hours	Learning Outcomes	Sem.	Specific Competence	Generic Competence
Architectural and urban project Workshop	224	Spatial analysis	S1,2	9	14
	112	Design approaches (form-structure-function)	S3	15	
	112	Architectural project initiation (Small public facility)	S4	2	
	112	Urban public project (civility- territoriality)	S5	22	
	112	Project of the first cycle: collective housing	S6	2	
	112	Project in the metropolitan area	S7	22	
	112	Social housing Project	S8	2,17	
	112	Workshop: architecture, city and territory	S9,10	22,326	
	224	Specialized studio space: urban building, eco-construction, construction and new technology, city, territory and landscapes	S7,8,9,10	2,15,22,3,17,26	
Arts and plastic	112	Observation and drawing	S1,2	6,3,22,9	14
	56	Shapes, light and colour effects	S3	10,9,15	14
	56	Abstraction-stylisation	S4	9	
	56	plastic experimentation	S5	15	14

expressions	56	Techniques for rendering	S6	9	
	56	Public art and city	S7	2, 22, 3,	17
	56	Urban design workshop	S8	2,22,10	
Graphic representations and technology	28	Perspective/descriptive	S1	9	
	28	The basic graphical representation	S2	9,3,26	
	28	Technical details of construction	S3	9,3,26	
	28	project Representation	S4	9,3,26	14
Science and computer graphics	28	Initiation to digital environment	S1	11, 9	
	28	Photography studio and image processing technology	S2	11	14
	168	Specialized programmes (Computer-aided drafting (CAD), synthetic images, modelling and virtual architecture and video animation)	S3,4,5, 6,7, 8	11, 2,3	25
Urbanism and sciences of the city	28	Urban governance	S6	1	
	28	Problems of the contemporary city: metropolisation	S7	5	
	28	Urban planning : processes and components	S8	5,14	
Communication skill technologies	28	Various forms of communication and public speaking	S1	11 (13)	2
	28	Oral presentation techniques and audiovisual	S2	11 (13)	2
	28	Communication and group dynamic	S3	11 (13)	25

(French as teaching language)	28	Writing workshop	S4	3 (13)	2
Internship programme		Please see Professional Practice and Work Ethics			

Core Cluster: Construction and Technological Abilities

Courses	Level	Learning Outcomes	Sem.	Specific Competence	Generic Competence
Materials science	28	Static	S1	16, 24	
	28	Mechanics of materials	S1	16	
	28	Knowledge of construction materials	S2	16	
	28	Soil mechanics / introduction to reinforced concrete	S2	16,19,24	
Structures and building technologies	56	Structures	S3,4	16	
	56	General construction process	S3,S4	16	
Sciences of comfort and ambiance	28	Thermal/acoustics insulation	S5	19	
	28	Lighting and sunlight	S5	23,16	
	28	Building envelope systems	S6	23	
	28	Construction and sustainable development	S6	23	
Internship programme		Please see Professional Practice and Work Ethics			

Core Cluster: Theoretical Background and Socio-cultural values

Courses	Level	Learning Outcomes	Sem.	Specific Competence	Generic Competence
Architectural Doctrines and theory	28	Visual learning	S1	1	4
	28	Architectural vocabulary	S2	4	
	28	Modern architectural concepts	S3	8,7,12	4
	28	Contemporary architecture problematic	S4	8,7,12	4
	28	Urban typo-morphology	S5	1,4	4
	28	Introduction to landscape	S6	1,4	4
History of art and architecture	28	Medieval age (Romanesque and Gothic architecture)	S3	4,7,	4,21
	28	Renaissance and Baroque	S4	4,7	4,21
	28	18 th and 19 th centuries	S5	4,7	4,21
	28	Modern and contemporary art (20th century)	S6	5,8,7,12,	4,21
	28	From prehistory to antiquity	S1	4,8	4,21
	28	Art and architecture : Byzantine, Islamic and Maghreb periods	S2	4,7	4,21
	56	Philosophy and architecture	S5,6	1,7,	4, 21
	28	Urban sociology	S1	1,5,14	4

Human and social sciences	28	The Anthropology of Space	S2	1,5,14	4
	28	Urban geography	S3		
	28	Urban economy	S4	12	
	28	Cities history and urban doctrines	S5	1,4,8	21

Core Cluster: Professional Practice and Work Ethics

Courses	Level	Learning Outcomes	Sem.	Specific Competence	Generic Competence
Standards, public regulation and construction sites	28	Construct with steel	S7	19, 16, 24	20,10
	28	Special structures	S7	19	
	28	Technical specifications, standards and regulation	S8	19.21	20, 1018,19,24
	28	Project management / quality management	S8	19.21	
Architectural Practice and Deontological ethics	28	Practical aspect of architecture and Project direction of architectural projects	S9	20	10, 20,11,18
	28	Deontology, responsibility and ethics	S6	6	11,20,19
Internship programme		Completing some work experience or an industrial placement will help to develop an understanding of architectural practices. As well as generating contacts, it will build confidence in the candidate as well as his skills. It will also demonstrate to potential employers that the trainee is highly qualified, reliable and motivated.			

		This practical experience is monitored by professors from the University, and an employment mentor from their practice. The student gains experience either under the supervision of an architect, or another qualified construction industry professional.			
	1 month	Worker internship: building site, company and factory	S4	All	All
	1 month	Practical internship 1 : in a private architectural company	S6	All	All
	1 month	Practical internship 1 : in a planning establishment	S 10	All	All
Final project: graduating academic project	360	Practical experience – minimum of 12 month experience in total is required to sit the final examination. The work should be undertaken in real word, under the direct supervision of an architect.	S11,12	All	All
Seminars	112	4 Seminars (1 : professional practices, 2 : heritage, 3 : methodology)	S9,10		

Core Cluster: Personal Characteristics

Courses	Level	Learning Outcomes	Sem.	Specific competence	Generic Competence
English as a second foreign language	84	General English course	S1,2,3	13	
	84	Business English Skills; English for architects; Oral communication,	S4,5,6	13	
	56	Preparation to English TOEFL	S7,8	13	
Communication skill	28	Various forms of communication and public speaking	S1	13	
	28	Oral presentation technologies and audiovisual	S2	13	

technologies <i>(French as teaching language)</i>	28	Communication and group dynamic	S3	13	
	28	Writing workshop	S4	13	
Seminars	112	4 Seminars (1 : professional practices, 2 : heritage, 3 : methodology)	S9,10	13	7
Internship programme		Please see Professional Practice and Work Ethics			

References

1. High school of architecture – Casablanca: teaching programme of 2014 - 2015

2. ARCHITECTURE - META-PROFILE

DESIGN ABILITIES

Meta-profile	Specific competencies	Generic competencies
Ability to design buildings, sites, and/or urban development projects in a sustainable manner (socially, culturally, economically, environmentally)	2. Ability to design buildings and/or urban development projects that blend with the surrounding environment and fully satisfy local human, social...	
	15. Capacity to design projects assuring environmental, social, cultural and economic sustainability.	
	22. Ability to develop site plans and landscape designs.	
	25. Awareness of the importance of client's role in the design process.	
Ability to think, perceive and conceive spaces three dimensionally and communicate verbally, in writing, graphically, and/or volumetrically.	9. Ability to think, perceive and conceive spaces three dimensionally in different scales.	2. Communicate orally and in writing with different audiences
	11. Mastery of the media and tools used for communicating verbally, in writing and/or volumetrically...	25. Skills in the use of information and communication technologies
Skill in formulating creative and innovative ideas and transforming them into architectural creations and urban planning.	3. Skill in formulating creative and innovative ideas and transforming them into architectural creations and urban planning.	14. Be innovative and creative
	10. Skill in reconciling all the factors involved in architectural design and urban development.	
Ability to design buildings to accommodate	17. Ability to design buildings to accommodate	

individuals with varying physical abilities.	individuals with varying physical abilities.	
Ability to analyze and incorporate relevant precedents into architectural design projects.	26. Ability to analyze and incorporate relevant precedents into architectural design projects.	17. Search for information from a variety a sources

CONSTRUCTION AND TECHNOLOGICAL ABILITIES

Meta-profile	Specific competencies	Generic competencies
Ability to conceive and integrate structural, construction, renewable energy systems, and environmental and installation systems to architectural designs.	16. Ability to conceive and integrate structural, construction, environmental and installation systems to architectural designs.	
	23. Understanding the importance of, and ability to incorporate new and renewable energy sources in building design.	
Capacity to produce comprehensive construction documents.	19. Capacity to produce comprehensive construction documents.	
Awareness of methods of execution practiced in architectural projects.	21. Awareness of methods of execution practiced in architectural projects.	
Understanding of the basic principles and appropriate application of construction materials including local ones.	24. Understanding of the basic principles and appropriate application of construction materials including local ones.	

THEORETICAL BACKGROUND AND SOCIO-CULTURAL VALUES

Meta-profile	Specific competencies	Generic competencies
Appreciation of the social and cultural role of Architecture.	1. Appreciation of the social and cultural role of Architecture.	
Knowledge of history and theory of Architecture and related human sciences and engineering.	4. Knowledge of history and theory of Architecture and related human sciences and engineering.	
Awareness of current architectural ideas and practices at local and global levels.	5. Awareness of current architectural ideas and practices at local and global levels.	
	8. Awareness of the continuous changes of	

	architectural ideas and practices.	
Ability to conduct investigation and research in the process of architectural innovation.	7. Awareness that investigation and research are essential components of architectural creations.	12. Apply knowledge in practical situations
Have critical thinking, analysis and synthesis		4. Have critical thinking, analysis and synthesis
		5. Identify and resolve problems
		6. Make logical decisions
Ability to evaluate, enhance and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments.	12. Ability to evaluate, enhance and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments.	21. The preservation of cultural heritage and values
Knowledge of aesthetics and arts, and understanding their role as key factors in the quality of architectural thinking and design.	14. Knowledge of aesthetics and arts, and understanding their role as key factors in the quality of architectural thinking and design.	

PROFESSIONAL PRACTICE AND WORK ETHICS

Meta-profile	Specific competencies	Generic competencies
Act ethically pertaining issues related to architectural design and practice.	6. Understanding of the ethical issues involved in architectural design and practice.	11. Act ethically with social responsibility
Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession.	18. Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession.	20. Health and safety procedures
Capacity for planning, programming, budgeting and managing architectural projects.	20. Capacity for planning, programming, budgeting and managing architectural projects.	

Maintain quality of work		10. Maintain quality of work
The protection and preservation of the environment		18. The protection and preservation of the environment
Respect for diversity and multiculturalism		19. Human rights
		24. Respect for diversity and multiculturalism
Maintain continuous education		3. Maintain continuous education

PERSONAL CHARACTERISTICS

Meta-profile	Specific competencies	Generic competencies
Ability to work within, or lead constructively interdisciplinary teams.	13. Ability to work within, or lead constructively interdisciplinary teams.	7. Work in an interdisciplinary team
		8. Lead effectively
		16. Empower others
Communicate in a second language	13. Communicate in a second language	
Demonstrate organizational skills		22. Demonstrate organizational skills
		1. Manage time effectively
Possess a high level of interpersonal skills		15. Be flexible and adapt to different situations.
		9. Work autonomously
		23. Have a sense of dedication

		26. Can take initiatives
		27. Self-motivated
		28. Assertive

Index 3: The Architectural Engineering Program at IUST Revisited: A Proposal for Improvement Based on Tuning META-Profile

Because the Architectural Engineering Program is relatively new established (started in 2005), the University feels that it is adequate to revisit it and look into modifications and developments to make it more in tune with present day needs and aspirations of the Syrian society. Development of a new program is not seen as a possible option at the moment. Thus, it was decided to work with the existing curriculum in accordance with the following steps:

1. Evaluation of the existing curriculum:
 - a. IUST Architectural Program and META-Profile
 - b. Evaluation of the Architectural Engineering Program by Architectural SAG of Tuning META
 - c. IUST Architectural Program Faculty Assessment
2. Developing a new degree profile:
 - a. Establishing directions for the Program
 - b. A Degree Profile for IUST's Architectural Engineering Program
 - c. A vision for the Architectural Engineering Program
 - d. A mission for the Architectural Engineering Program
 - e. Development of new set of Program's objectives
3. Modification of the existing curriculum to accommodate necessary changes:
 - a. Gaining credit hours
 - b. Competencies to be emphasized
 - c. Identification of appropriate courses for each competency
 - d. The new curriculum
 - e. Examples of courses' learning outcomes

1. Evaluation of the existing curriculum:

In order to develop the existing architectural program at the International University for Science and Technology in Syria, it was first evaluated in three ways: the Program was evaluated in terms of its compatibility with the META-Profile; it was also evaluated by the members of the Architectural Subject Area Group based on the individual experience of each member; and finally, the faculty of the Program conducted an assessment for it.

1.1. IUST Architectural Program and META-Profile

The Program at IUST was evaluated based on the META-Profile developed by the Architectural Subject Area Group. Table 1 shows the existing curriculum as distributed through ten semesters. Courses were marked individually in terms of the competencies which they offer. Based on Table 1, the curriculum was evaluated in Table 2 where courses which were seen of no support to the competencies of the META-Profile were marked in red, competencies which

were found not clearly addressed were marked in yellow, and those which were not well addressed in orange. The evaluation showed the following points:⁸

In connection with the objectives of the Architectural Engineering Program at IUST:

1. Current objectives of the Program are **all addressed** in the META-Profile.
2. Objectives of the Program **does not seem to address** the following points stated in the META-Profile: varying physical abilities of users, production of construction documents, local heritage, ethics, programming and management of projects, quality of work, respect of diversity, teamwork, and knowledge of second language.
3. Objectives of the Program **needs to clarify** the following points to become more in tune with the META-Profile: incorporating architectural precedents, integration of engineering systems to architectural design, understanding of construction materials, social and cultural role of architecture, history and theory of architecture, critical thinking, and legal framework of the profession.

In connection with the courses of the Architectural Engineering Program at IUST:

A good number of them fulfill the META-Profile competencies.

Nevertheless, the following competencies are **not addressed** in courses:

- Ability to analyze and incorporate relevant precedents into architectural design projects (design comp. 5)
- Act ethically pertaining issues related to architectural design and practice (professional comp. 1)
- Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession (professional comp. 2)
- Ability to work within, or lead constructively interdisciplinary teams (personal comp. 1)
- Demonstrate organizational skills (personal comp. 3)

The following competencies are **not well addressed**:

- k. Awareness of current architectural ideas and practices at local and global levels (theory comp. 3)
- l. Ability to conduct investigation and research in the process of architectural innovation (theory comp. 4)
- m. Have critical thinking, analysis and synthesis (theory comp. 5)
- n. Ability to evaluate, enhance and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments (theory comp. 6)
- o. Ability to think, perceive and conceive spaces three dimensionally and communicate verbally, in writing, graphically, and/or volumetrically (design comp. 2)

⁸ “Tuning Middle East and North Africa,” Third General Meeting, Nicosia, 15-19 February, 2015, pp. 61-67.

- p. Capacity for planning, programming, budgeting and managing architectural projects (professional comp. 3)
- q. The protection and preservation of the environment (professional comp. 5)
- r. Respect for diversity and multiculturalism (professional 6)
- s. Maintain continuous education (professional comp. 7)
- t. Communicate in a second language (personal comp. 2)

In conclusion, Competencies related to DESIGN ABILITIES as well as CONSTRUCTION AND TECHNOLOGICAL ABILITIES are all almost well covered in the Program's courses.

Competencies of THEORETICAL BACKGROUND AND SOCIO-CULTURAL VALUES, PROFESSIONAL PRACTICE AND WORK ETHICS, and PERSONAL CHARACTERISTICS are either not introduced or not sufficiently addressed in the Program's courses.

It is to be stated that the Program has a strong structural component that the META-Profile does not emphasize as much.

Table 1: IUST Architectural Program curriculum with META-Profile competencies related to individual courses

		cr	Design Abilities					Theory							Construction				Professional Practice							Per. Charac.			
	Course Title		1	2	3	4	5	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4
Semester 1	Introduction to Engineering	1																											
	Architectural Drawing	2																											
	Basic Design (1)	3																											
	Computer Skills (1)	3																											
	Calculus (1)	3																											
	General Physics (1)	3																											
	English Skills (1)	3																											
Semester 2	Architectural Communication (1)	2																											
	Basic Design (2)	3																											
	Calculus (2)	3																											
	General Physics (2)	3																											
	General Physics Lab. (1)	1																											
	Arabic Skills (1)	3																											
	English Skills (2)	3																											
Semester 3	Construction Mechanics	2																											
	Architectural Communication (2)	3																											
	Architectural Design (1)	5																											
	Building Construction (1)	3																											
	History of Architecture (1)	3																											

		cr	Design Abilities					Theory							Construction				Professional Practice							Per. Charc.			
	Course Title		1	2	3	4	5	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4
Sem 3	General Physics Lab. (2)	1																											
Semester 4	Technical English	2																											
	Structural Analysis	2																											
	Architectural Design (2)	5																											
	History of Architecture (2)	3																											
	Building Construction (2)	3																											
	Computer Skills (2)	3																											
Semester 5	Surveying (1)	2																											
	Surveying (1) Lab	1																											
	Workshop (1)	1																											
	Computer Aided Design	3																											
	Architectural Design (3)	5																											
	Building Construction (3)	3																											
	Contemporary Architecture	3																											
Semester 6	Reinforced Concrete	2																											
	Steel Design	2																											
	Workshop (2)	1																											
	Architectural Design (4)	5																											
	Urban Planning	3																											
	Structural Systems	2																											
	Islamic Architecture	3																											

		cr	Design Abilities					Theory							Construction				Professional Practice							Per. Charac.			
	Course Title		1	2	3	4	5	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4
Semester 7	Architectural Design (5)	5																											
	Housing	3																											
	Theory of Urban Design	3																											
	Landscape Design	2																											
	Behavioral Architecture	3																											
	Environmental Control	2																											
Semester 8	Architecture Design (6)	5																											
	Working Drawing	3																											
	Mechanical Systems	2																											
	Illumination & Acoustics	3																											
	University Elective	3																											
Semester 9	Local Architecture and & Conservation	3																											
	Specification & Quantities	2																											
	Training	3																											
	Graduation Project (1)	2																											
	Department Elective	2																											
	Free Elective	3																											
Semester 10	Graduation Project (2)	5																											
	Department Elective	2																											
	Department Elective	2																											
	Department Elective	2																											

Table 2: IUST Architectural Program curriculum: green cells: competencies met by courses; red cells: courses providing no competency; yellow cells: competencies not clearly addressed by any course, orange cells: competencies not well addressed

		cr	Design Abilities					Theory							Construction				Professional Practice							Per. Charac.			
	Course Title		1	2	3	4	5	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4
Semester 1	Introduction to Engineering	1																											
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	Calculus (2)	3																											
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	Architectural Communication (2)	3																											
	Architectural Design (1)	5																											
	Building Construction (1)	3																											
	History of Architecture (1)	3																											

		cr	Design Abilities					Theory							Construction				Professional Practice							Per. Charc.			
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	Course Title		1	2	3	4	5	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4
Sem 3	General Physics Lab. (2)	1																											
Semester 4	Technical English	2																											
	Structural Analysis	2																											
	Architectural Design (2)	5																											
	History of Architecture (2)	3																											
	Building Construction (2)	3																											
	Computer Skills (2)	3																											
Semester 5	Surveying (1)	2																											
	Surveying (1) Lab	1																											
	Workshop (1)	1																											
	Computer Aided Design	3																											
	Architectural Design (3)	5																											
	Building Construction (3)	3																											
	Contemporary Architecture	3																											
Semester 6	Reinforced Concrete	2																											
	Steel Design	2																											
	Workshop (2)	1																											
	Architectural Design (4)	5																											
	Urban Planning	3																											
	Structural Systems	2																											
	Islamic Architecture	3																											

		cr	Design Abilities					Theory							Construction				Professional Practice							Per. Charac.			
	Course Title		1	2	3	4	5	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	6	7	1	2	3	4
Semester 7	Architectural Design (5)	5																											
	Housing	3																											
	Theory of Urban Design	3																											
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	Department Elective	2																											
	Free Elective	3																											
Semester 10	Graduation Project (2)	5																											
	Department Elective	2																											
	Department Elective	2																											
	Department Elective	2																											

1.2. Evaluation of the Architectural Engineering Program by Architectural SAG of Tuning META

Members of the Architectural SAG of Tuning META evaluated the architectural curriculum at IUST during the Third General Meeting of Tuning META in Nicosia (15-19 February 2015). Conclusions of the discussion are summarized here:

- a. The Program in general seems to match what can be described as a generic architectural program. No clear direction or emphasis is evident.
- b. Architectural design as a main emphasis in the program is not clearly evident; in other words, more design courses are needed.
- c. May need to increase credit hours of design studios and graduation project.
- d. Graphics and communication skills need to be either more emphasized or better presented: freehand, perspective, color and presentation techniques.
- e. Need to better benefit from computer classes to the benefit of architectural graphics.
- f. History and Theory of Architecture sequence needs three courses instead of two to emphasis theory.
- g. Better to have two Working Drawings courses for the importance of the subject.
- h. Basic Design courses to have more credits.
- i. Structure courses to be better distributed in the curriculum (concrete and steel in two different semesters instead of one.)
- j. Two courses are needed: Professional Practice and Ethics, and Project Management.
- k. Ways to increase available credit hours for curriculum improvement:
 - Minimize number of University and College courses and credits
 - Reduce hours of surveying to 2 credits: 1 hour lecture, 2 hours lab.
 - Reduce credits of training or make it zero credit
 - Move workshops from required courses to electives

1.3. IUST Architectural Program Faculty Assessment

Faculty of the Department of Architectural Engineering at IUST conducted a number of formal and informal meetings regarding the issue of assessing and developing the existing curriculum. The process will continue throughout the modification process. Members of the Faculty approve the evaluation of the curriculum based on the Architectural META-Profile and the Architectural Subject Area Group. They added some specific notes to be considered in the development of the revised curriculum. The following is a summary of their concerns:

- a. Design courses should have a theoretical component in them; thus the five credits of any studio could be (1) credit of lecture and (4) credit of studio totaling (9) contact hours.
- b. A seventh studio is needed in Semester (9) to give students more chances of design experiences.
- c. Housing and Residential Design to be better represented in the curriculum through two courses.

- d. Perspective to be taught with emphasis on sketching.
- e. Architectural drawings course to have 3 credits instead of 2.
- f. Building Construction courses to emphasize the following areas:
 - Construction 1: Basic construction materials and architectural detailing (present Construction 1 and Construction 2 combined)
 - Construction 2: Architectural finishes (present Construction 3)
 - Construction 3: Contemporary and sustainable techniques, detailing, and materials.
- g. Acoustics and Lighting to be in two courses.
- h. A need for project management course emphasizing legal aspects of the profession.
- i. Sequence of technical courses should be as follows: Acoustics and Lighting – Mechanical Systems – Specifications and Quantities – Environmental Design.
- j. Environmental Design can be Physics of Buildings.

2. Developing a new degree profile:

It was imperative to revisit the profile of the degree in order to orient it in accordance with the new vision of the Program that is based on the previous evaluation. Clearer directions were established for the Program which guided the rewriting of the Programs objectives.

2.1. Establishing directions for the Program (a degree profile)

According to Tuning, a degree profile is based on four factors: Tuning Profile (in this case META-Profile), future trends, University strengths, and professional and social needs.⁹ This profile would be the base for any program.

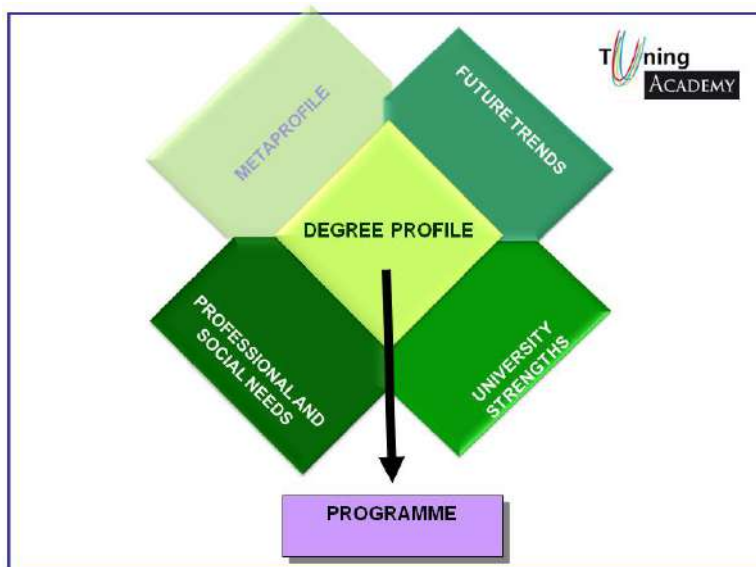


Figure 1: Elements of a program

⁹ Pablo Beneitone, "Tasks planned for next months," Tuning Middle East and North Africa, T-MEDA, Second General Meeting, Bilbao, 1st October 2014

As for **Tuning Profile**, the previous section summarized the points which should be emphasized to make the curriculum at IUST more in tune with the developed profile. The new profile should look into the following points:

- a. Users with varying abilities
- b. Production of construction documents
- c. Local heritage
- d. Project management
- e. Ethics and quality of work
- f. Personal characteristics of an architect (respect of diversity, teamwork, knowledge of second language, etc.)

The profile should clarify its emphasis on:

- a. Architectural precedents
- b. Integration of engineering systems to architectural design
- c. Understanding of construction materials
- d. Social and cultural role of architecture
- e. History and theory of architecture
- f. Critical thinking
- g. Legal framework of the profession

The Profile which will be translated in words through the Program's objectives will not address all the previous points; nevertheless, it should reflect them in general terms. These general terms can be translated in to specific competencies and learning outcomes that cover all needed issues.

Thus, it can be concluded here that the Program's profile should carefully address the following:

- a. History and theory of architecture including local heritage and present trends
- b. Execution of buildings through the integration of design, construction, management, and legal perspectives
- c. Development of student's critical thinking abilities to address design issues related to different situations and users
- d. Personal characteristics of students of architecture which foster sensitive practice and design

Addressing these points would be under the umbrella of a Tuning profile that is summarized as follows: **"Meta-Profile to ethically and diligently emphasize socio-cultural issues and environmental concerns, using contemporary technologies and materials."**

Future trends in architecture are affected by global factors. Globalization versus localization, environmental issues, sustainability, modern technologies, and stronger emphasis on the user are the main concerns of contemporary architectural discourse. The Program at IUST should address these issues in its future curriculum.

The International University for Science and Technology is a young university; one of almost twenty private universities established during the last ten years in Syria. **The strength of the University** is in its emphasis on quality through personal relationships among faculty and students; a typical strength in small private schools. The Architectural Engineering Department in particular has been lucky in this regard thanks to the special overall positive chemistry among faculty members on one hand, and among students and faculty on the other. The Department has a very good reputation in the country mainly because of the continuous effort to maintain **friendly and fatherly relationships among all parties involved in the academic experience**.

Pedagogically, members of the faculty in the Department emphasize the **socio-cultural dimension of design** although this is not well documented in the Programs literature. **Critical thinking and conceptual development** can also be considered points of strength in practice while not eloquently presented.

Professional and social needs in Syria are in direct connection with the present situation. The five year war left the country with extreme destruction that will need decades of rebuilding. The architectural Program at IUST should put the participation of rebuilding the country as its only main mission for the coming twenty or thirty years. This mission will have to be reflected on the vision of the Department, its profile, and its educational objectives.

2.2. A Degree Profile for IUST's Architectural Engineering Program

From the above collection of influencing factors, a degree profile for IUST's Architectural Engineering Program is developed as shown in Figure 2 and summarized here in bullet points:

- a. **The Architectural Meta-Profile** ethically and diligently emphasizes socio-cultural issues and environmental concerns, using contemporary technologies and materials.
- b. **Future Trends** in architecture are mainly globalization versus localization, environmental issues, sustainability, modern technologies, and stronger emphasis on the user.
- c. **University Strengths:** strong ties with students, socio-cultural emphasis, critical thinking, conceptual development.
- d. **Professional and Social Needs:** the main issue for the coming couple of decades is rebuilding the country.

These four factors are used as base for developing the objectives of the program.

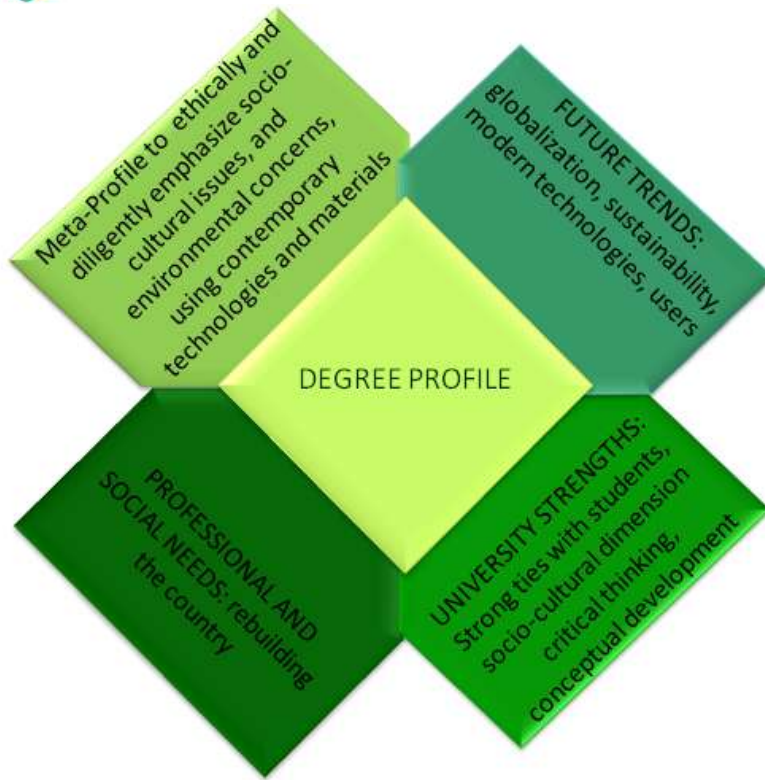


Figure 2: A degree profile for the Architectural Program at IUST

2.3. A Vision for the Architectural Engineering Program at IUST

As part of its efforts to be a useful program in the coming era of Syria's history, the Program's vision is:

"To be part of the positive efforts in rebuilding Syria through sensitive, functional, and pleasing built environment."

2.4. A Mission for the Architectural Engineering Program at IUST

Based on the evaluations and considerations presented earlier, the Architectural Engineering Program at IUST has the following mission:

"To graduate architects who can successfully support all rebuilding efforts in Syria through a built environment that respects nature and all types of users, and accommodates their physical and non-physical needs, benefiting from contemporary technologies."

2.5. A new set of Program's Objectives

In accordance with the above degree profile and the new vision and mission, the Program of Architectural Engineering at IUST has the following main objectives:

- a. To provide students with design abilities that qualify them to produce environment that is sustainable in all aspects, creative, sensitive, functional, and pleasing for all types of users, using all available state-of-the-arts verbal and graphic media.

- b. To educate students in all aspects of the history and theory of architecture including contemporary trends of architecture thought to be able to critically analyze works of architecture for the benefit of their design work.
- c. To provide students with sufficient technical abilities to be able to conceive all structural and technical solutions for their architectural work and present them via comprehensive written and graphic documentations.
- d. To train students in areas of professional practice related to ethical, legal, and managerial aspects of the profession.
- e. To help students develop personal characteristics that value continuing education, team work, ethical practice, and high level interpersonal and organizational skills.
- f. To foster in students strong feeling of belonging and responsibility to use all acquired knowledge and skills for the main objective of rebuilding their country properly functionally, socially, environmentally, aesthetically, and ethically.

3. Modification of the existing curriculum to accommodate necessary changes:

In order to modify the curriculum, it was imperative to eliminate some courses because they do not fit in the scheme of the new vision, mission, and objective of the new program, and there is a crucial need for extra credit hours to accommodate the new directions the Program is acquiring. When knowing the number of hours available to make changes, competencies to be emphasized were identified along with appropriate courses for them. The following step was to formulate the new curriculum. Finally, learning outcomes for each course were stated.

3.1. Gaining credit hours

Table 3 shows changes were introduced to eliminate courses which do not fit the new objectives of the Program.

Table 3: Changes and eliminations applied to the original curriculum

	Course	Action	Number of credits gained
1	Computer Skills (1)	Eliminated; students are requested to present an ICDL certificate to graduate	3
2	Computer Skills (2)	Changed to Auto-CAD, Sketchup, Archicad	
3	Calculus (1)	Changed to Descriptive Geometry	
4	Calculus (2)	Eliminated	3
5	General Physics (1)	Changed to Buildings Physics	
6	General Physics (2)	Eliminated	3
7	General Physics Lab (1)	Eliminated	1
8	General Physics Lab (2)	Eliminated	1

9	Construction Mechanics	Eliminated	3
10	Structural Analysis	Eliminated	2
11	Reinforced Concrete	Reinforced Concrete and Steel Design are joined together in one (3) credit course	1
12	Steel Design		
13	Surveying (1)	Surveying (1) and Surveying (1) Lab are joined together in one (2) credit course: (1) lecture hour, (2) lab hours	1
	Surveying (1) Lab		
14	Training	credit hours Reduced to (1)	2
15	Free Elective	Eliminated	3
16	Dept. Electives	Three instead of four electives	2
Total number of eliminated courses: 10; total credits gained: 25 credits			

Thus, total hours gained because of the elimination of courses is (25) credits; and the number of courses eliminated is (10) courses. This allowed the following amendments to the existing curriculum. Changes included adding (5) new courses, and increasing the credit hours for (6) courses. Basic Design (2) was substituted with Architectural Design (1) to have (8) design studios after adding another studio in the first semester of the fifth year.

It is to be noted that the changes applied are reflections of the evaluation of the META-Profile, Architectural SAG, and the faculty of the Department as shown in Table 5. Added courses and increased credit hours answer directly to some of the missing competencies or short coming of the original curriculum. Other competencies will be addressed through modifications to the learning outcomes of existing courses.

Table 4: Added courses and changes applied at the original curriculum

	Course	Hours	Action	Number of credits used
1	Freehand Drawing	1 credit; 2 lab	Added	1
2	Working Drawing (2)	3 cr.; 6 lab.	Added	3
3	History and Theory (3)	3 cr.; 3 lec.	Added	3
4	Architectural Design (8)	5 cr.; 10 lab.	Added	5
5	Project Management	2 cr., 2 lec.	Added	2
6	Professional Practice and Ethics	2 cr.; 2 lec.	Added	2
7	Mechanical Systems	3 cr., 3 lec.	Increased credits by (1)	1
8	Architectural Communication (1)	3 cr.; 6 lab.	Increased credits by (1)	1
9	Basic Design (1)	5 cr.; 10 lab.	Increased credits by (2)	2
10	Basic Design (2)	5 cr.; 10 lab.	Increased credits by (2) and	2

			changed to Architectural Design 1	
11	All other courses		Shifted one notch down	
12	Graduation Project (2)	8 cr.; 4 lec., 8 lab.	Increased credits by (3)	3
Total number of added courses: 6; total credits used: 25 credits				

Although the total number of credits is the same, number of courses was reduced by four (4) courses. The reduction of number of courses will ease up the scheduling of the curriculum.

Table 5: Source of changes in the curriculum

The Course		Source of Change		
		Meta-Profile	SAG	Faculty
1	Freehand Drawing			
2	Working Drawing (2)			
3	History and Theory (3)			
4	Architectural Design (8)			
5	Project Management			
6	Professional Practice and Ethics			
7	Mechanical Systems			
8	Architectural Communication (1)			
9	Basic Design (1)			
10	Basic Design (2)			
11	Graduation Project (2)			

It is obvious that although the Mega-Profile had its influence on the changes, SAG and faculty of the Department have also greatly contributed to it. The following section will exhibit the relationship between courses, whether new, modified, or old, and the competencies to be stressed.

3.2. Identification of appropriate courses for competencies to be stressed

As mentioned earlier, competencies that need to be stressed will be addressed either by new courses or by modifications on the learning outcomes of existing courses. The main motivation for the suggested changes was to reduce the number of courses which are of relatively no relation with the mainstream of the work of an architect in order to gain more hours for the core of any architectural curriculum; namely, design and graphics courses. It is assumed that these courses shall be able to accommodate, in general, most competencies related to architectural education within a practical setting.

Table 6 shows each competency that was not or poorly addressed in the original curriculum along with the course(s) that would accommodate it in the proposed curriculum. The table indicates whether the course is new (added), its credits are increased (increased credits), or whether it exists in the original curriculum but its learning outcomes would be modified to include the competency (learning outcomes). It is to be noted that the table shows the main

courses that will be carrying the needed competencies. Other courses, not necessarily mentioned here, would also share the responsibility of the competencies. A more detailed study of the curriculum in a second round of studies would draw the total picture.

Table 6: Courses accommodating missing competencies in the proposed curriculum

	Required Competency	Course to Accommodate the Competency	Type of Course
1	Ability to analyze and incorporate relevant precedents into architectural design projects (design comp. 5)	Design Courses History and Theory Courses	Added Learning outcomes
2	Act ethically pertaining issues related to architectural design and practice (professional comp. 1)	Professional Practice and Ethics	Added
3	Knowledge and ability to apply legal framework, safety regulations and technical codes controlling activities of the profession (professional comp. 2)	Professional Practice and Ethics	Added
4	Ability to work within, or lead constructively interdisciplinary teams (personal comp. 1)	Design Courses	Added Learning outcomes
5	Demonstrate organizational skills (personal comp. 3)	Design Courses	Added Learning outcomes
6	Awareness of current architectural ideas and practices at local and global levels (theory comp. 3)	History and Theory Courses	Added Learning outcomes
7	Ability to conduct investigation and research in the process of architectural innovation (theory comp. 4)	History and Theory Courses	Added Learning outcomes
8	Have critical thinking, analysis and synthesis (theory comp. 5)	History and Theory Courses	Added Learning outcomes
9	Ability to evaluate, enhance and preserve architectural and urban local heritage and recognize the importance of its relation with current architectural developments (theory comp. 6)	Local Architecture and Conservation of Heritage Islamic Architecture History and Theory courses	Learning outcomes
10	Ability to think, perceive and conceive spaces three dimensionally and communicate verbally, in writing, graphically, and/or volumetrically (design comp. 2)	Freehand Drawing Arch. Communication 1 Design courses and graphic courses	Added Increased credits Added and learning outcomes
11	Capacity for planning, programming,	Project Management	Added

	budgeting and managing architectural projects (professional comp. 3)	Working Drawing (2)	
12	The protection and preservation of the environment (professional comp. 5)	Professional Practice and Ethics Landscape Design Environmental Control	Added Learning outcomes Learning outcomes
13	Respect for diversity and multiculturalism (professional 6)	Professional Practice and Ethics Behavioral Architecture	Added Learning outcomes
14	Maintain continuous education (professional comp. 7)	Professional Practice and Ethics History and Theory courses	Added Learning outcomes
15	Communicate in a second language (personal comp. 2)	All courses	Learning outcomes

Table 6 presented matching the Architectural META-Profile requirements with the modified curriculum through added or modified courses. Table 7 and Table 8 show the courses which accommodated the suggested modifications addressed by both SAG and the Department's faculty respectively.

Table 7: Actions accommodating suggested changes by the Architectural SAG

	Required Change	Action to Accommodate Change	Type of Course
1	The Program in general seems to match what can be described as a generic architectural program. No clear direction or emphasis is evident	Vision and Mission of Program have been changed with a clear emphasis on rebuilding Syria.	New vision, mission, and objectives are reflected on all courses' learning outcomes
2	Architectural design as a main emphasis in the program is not clearly evident; in other words, more design courses are needed	Increased credits for Basic Design (1) and (2) and GP (2) (BD2 became AD 1) Added AD (8)	Added Increased credits
3	May need to increase credit hours of design studios and graduation project	Done as in (2)	Added Increased credits
4	Graphics and communication skills need to be either more emphasized or better presented: freehand, perspective, color and presentation techniques	Increased credits for Arch. Com. (1) Added Freehand Drawing course	Added Increased credits
5	Need to better benefit from computer	Changed courses	Learning outcomes

	classes to the benefit of architectural graphics	content	
6	History and Theory of Architecture sequence needs three courses instead of two to emphasis theory	History and Theory (3) is added	Added
7	Better to have two Working Drawings courses for the importance of the subject	Working Drawing (2) added	Added
8	Basic Design courses to have more credits	(4) credits were added with change of name for BD2	Increased credits
9	Structure courses to be better distributed in the curriculum	Accommodated in the new curriculum	
10	Two courses are needed: Professional Practice and Ethics, and Project Management	Both courses are added	Added

All modifications or suggestions advance by the Architectural SAG were accommodated in support of the META-Profile. Table 8 shows that suggestions of the faculty were also met.

Table 8: Actions accommodating suggested changes by the Architectural Engineering Faculty at IUST

	Required Change	Action to Accommodate Change	Type of Course
1	Design courses should have a theoretical component in them; thus the five credits of any studio could be (1) credit of lecture and (4) credit of studio totaling (9) contact hours	Design Courses to have 5 credits (1 lec. + 8 studio)	
2	A seventh studio is needed in Semester (9) to give students more chances of design experiences	Design 8 is added	Added
3	Housing and Residential Design to be better represented in the curriculum through two courses	Housing, Urban Planning, and Theory of Urban Design should all accommodate this point	Learning outcomes
4	Perspective to be taught with emphasis on sketching	Freehand course added Credits for Gr. Com. 1 are increased	Added Increased credits Learning outcomes
5	Architectural drawings course to have 3	Done	Increased credits

	credits instead of 2		
6	Building Construction courses to emphasize the following areas: Construction 1: Basic construction materials and architectural detailing (present Construction 1 and Construction 2 combined) Construction 2: Architectural finishes (present Construction 3) Construction 3: Contemporary and sustainable techniques, detailing, and materials	To be done in the detailed study of courses	Learning outcomes
7	Acoustics and Lighting to be in two courses	Cannot be accommodated	
8	A need for project management course emphasizing legal aspects of the profession	Project Management course is added	Added
9	Sequence of technical courses should be as follows: Acoustics and Lighting – Mechanical Systems – Specifications and Quantities – Environmental Design	To be done in the detailed study of courses	Learning outcomes
10	Environmental Design can be Physics of Buildings	General Physics (1) is changed to Building Physics Environmental Design can be an advanced practical course	Added Learning outcomes

3.3. The new Curriculum

Changes to the original curriculum are not major. It was intended to make these changes as few as possible in order to have better chances to obtain approval from the University and the Ministry of Higher Education.

Changes will be more evident in course descriptions, objectives, and learning outcomes. It is through these detailed changes that the Architectural Engineering Program at IUST will be mostly altered and redirected to meet the aspired development.

The modified curriculum is based on the original one taking into consideration a number of points:

- Minimum change to be made
- Recognition of available openings after the elimination of some courses
- Better sequence of certain courses, especially construction ones
- Equal distribution of courses and credits
- Level of difficulty of courses

Table 9 shows the existing curriculum added to it notes related to omitted, modified, or combined courses. The table helps understand the original curriculum which was the base on which to apply the modifications.

Table 10 presents the modified curriculum. Similarity between the original and modified is very evident, an end result which is very expected since the strategy of the work was to apply as little changes as possible to the original curriculum.

Table 9: Original Curriculum of the Architectural Engineering Program at IUST

First Year							
First Term				Second Term			
COURSE No.	COURSE TITLE	Cr. Hr.	Prerequisite or *Corequisite	COURSE No.	COURSE TITLE	Cr. Hr.	Prerequisite or *Corequisite
301101	Introduction to Engineering	1	-	305102	Architectural Communication (1)	2 3	305101
305101	Architectural Drawing	2	-	305112	Basic Design (2) AD (1)	3 5	305111
305111	Basic Design (1)	3 5	-	601102	Calculus (2)	3	601101
401101	Computer Skills (1)	3	-	601104	General Physics (2)	3	601103
601101	Calculus (1) Desc. Geom.	3	-	601107	General Physics Lab. (1)	1	601103*
601103	Physics (1) Bld. Phys	3	-	603101	Arabic Skills (1)	3	-
604101	English Skills (1)	3	-	604102	English Skills (2)	3	604101
Total		18		Total		18	

Second Year							
First Term				Second Term			
COURSE No.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite	COURSE No.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite
303201	Construction Mechanics	3	601103	301203	Technical English	2	604102
305201	Architectural Communication (2)	3	305102	303212	Structural Analysis	2	303201
305211	Architectural Design (1) (2)	5	305112	305212	Architectural Design (2) (3)	5	305211
305231	Building Construction (1)	3	-	305242	History of Architecture (2)	3	305241
305241	History of Architecture (1)	3	-	305232	Building Construction (2)	3	305231
601108	General Physics Lab. (2)	1	601104*	401201	Computer Skills (2) CAD 1	3	401101
Total		18		Total		18	

Third Year

First Term				Second Term			
COURSE No.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite	COURSE No.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite
303341	Surveying (1)	2	601101	303332	Reinforced Concrete	2	305231 & 303212
303347	Surveying (1) Lab	1	303241*	303334	Concrete & Steel Design	2-3	305231 & 303212
304111	Workshop (1)	1	-	304211	Workshop (2)	1	304111
305301	Computer Aided Design 2	3	305101 & 401101	305312	Architectural Design (4) (5)	5	305311
305311	Architectural Design (3) (4)	5	305212	305322	Urban Planning	3	305341
305331	Building Construction (3)	3	305232	305332	Structural Systems	2	303231
305341	Contemporary Architecture	3	305242	305342	Islamic Architecture	3	305341
Total		18		Total		18	

Fourth Year

First Term				Second Term			
COURSE No.	COURSE TITLE	Cr. hr.	Prerequisite	COURSE No.	COURSE TITLE	Cr. hr.	Prerequisite
305411	Architectural Design (5) (6)	5	305312	305412	Architecture Design (6) (7)	5	305411
305421	Housing	3	305322	305432	Working Drawing	3	305331
305423	Theory of Urban Design	3	305322	304442	Mechanical Systems	2-3	305331 & 305471
305425	Landscape Design	2	305322	305472	Illumination & Acoustics	3	305331 & 601104
305461	Behavioural Architecture	3	305341		University Elective	3	
305471	Environmental Control	2	601104				
Total		18		Total		16	

Fifth Year

First Term				Second Term			
COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite	COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite
305541	Local Architecture and & Conservation of Heritage	3	305423	305592	Graduation Project (2)	5 8	305591
305551	Specification & Quantities	2	305331		Department Elective	2	
305581	Training	3 1	5 th Year Level		Department Elective	2	
305591	Graduation Project (1)	2	305412		Department Elective	2	
	Department Elective	2					
	Free Elective	3					
Total		15		Total		11	

Courses to be added:

1. Freehand Drawings
2. Architectural Design 8
3. Working Drawing 2
4. History and Theory 3
5. Project Management
6. Professional Practice and Ethics

Table 10: Proposed Curriculum of the Architectural Engineering Program at IUST

First Year							
First Term				Second Term			
COURSE NO.	COURSE TITLE	Cr. Hr.	Prerequisite or *Corequisite	COURSE NO.	COURSE TITLE	Cr. Hr.	Prerequisite or *Corequisite

	Introduction to Engineering	1			Architectural Communication (1)	3	
	Architectural Drawing	2			Architectural Design (1)	5	
	Basic Design	5			Building Physics	3	
	Surveying	2			Building Construction (1)	3	
	Descriptive Geometry	3			Freehand Drawings	1	
	Arabic Skills	3			English Skills (1)	3	
	English Levels	0					
	Total	16			Total	18	

Second Year

First Term				Second Term			
COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite	COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite
	Architectural Communication (2)	3			Technical English	2	
	Architectural Design (2)	5			Structural Systems	2	
	Building Construction (2)	3			Architectural Design (3)	5	
	History of Architecture (1)	3			History of Architecture (2)	3	
	Workshop (1)	1			Building Construction (3)	3	
	English Skills (2)	3			CAD (1)	3	
	Total	18			Total	18	

Third Year

First Term				Second Term			
COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite	COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite

	Architectural Design (4)	5			Architectural Design (4) (5)	5	
	CAD (2)	3			Illumination & Acoustics	3	
	Working Drawings (1)	3			History and Theory (3)	3	
	Concrete and Steel Design	3			Housing	3	
	Islamic Architecture	3			Behavioral Architecture	3	
	Workshop (2)	1					
	Total	18			Total	17	

Fourth Year

First Term				Second Term			
COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite	COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite
	Architectural Design (6)	5			Architecture Design (7)	5	
	Contemporary Architecture	3			Working Drawing (2)	3	
	Theory of Urban Design	3			Specifications & Quantities	2	
	Landscape Design	2			Urban Planning	3	
	Mechanical Systems	3			University Elective	3	
	Environmental Control	2					
	Total	18			Total	16	

Summer of Fourth Year

First Term				Second Term			
COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite	COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite

	Training	1					
	Total	1					

Fifth Year

First Term				Second Term			
COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite	COURSE NO.	COURSE TITLE	Cr. hr.	Prerequisite or *Corequisite
	Architectural Design (8)	5			Graduation Project (2)	8	
	Graduation Project (1)	2			Project Management	2	
	Professional Practice and Ethics	2			Department Elective	2	
	Local Architecture and & Conservation of Heritage	3			Department Elective	2	
	Department Elective	2					
	Total	14			Total	14	

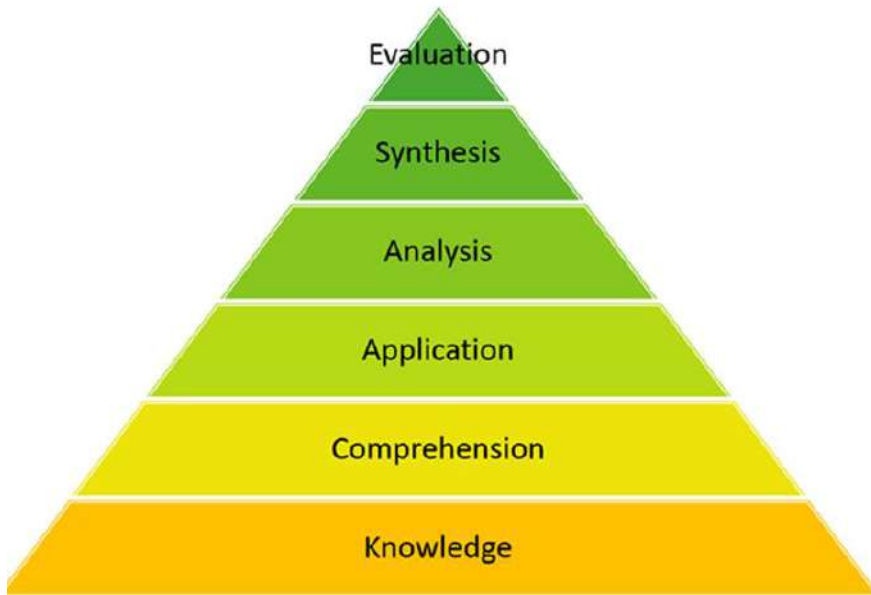
3.4. Examples of courses' learning outcomes

As experimentation in developing comprehensive and well connected learning outcomes, design courses are studied here. The revised program proposes eight design studios in addition to one basic design course and a graduation project course, totaling ten design courses. It is expected that students will learn a number of issues throughout these courses that can be summarized as follows:

1. **Principles of composition:** Composing with surfaces and masses depending on design elements and design principles.
2. **Spatial composition:** Composing spaces using composition principles, scale, visual studies, and spatial relations.
3. **Design as a response to need and circumstances:** Developing design solutions based on a study and comprehension of users' needs, functional requirements, site conditions, types of project, and building regulations.
4. **Formal and symbolic dimensions in architectural design:** Formal dimension is the study of architectural schools, directions, styles and theory of composition. Symbolic dimension is understanding architecture as a tool to convey a message.

5. **Social and behavioral issues:** looking into architecture as influenced and influencing container of social and behavioral dimensions.
6. **Technical and environmental consideration in architectural design:** Needed studies that guarantee a successful building from a technical perspective including mechanical and electric systems. These issues are to be discussed within ecological and sustainable perspectives.
7. **Development of architectural concepts:** methods and means to reach the architectural concept for projects which respond to the project's needs, conditions, and possibilities.
8. **Construction and materials:** construction methods and material selection in accordance with site conditions and project capabilities and needs.
9. **Comprehensive architectural design:** a design that covers all above areas comprehensively and meaningfully.

In order to define three levels of learning, Bloom's Pyramid of Knowledge is used. Architectural design requires the six levels specified by Bloom; a designer needs to acquire a certain amount of information (knowledge) that he/she needs to grasp and understand (comprehension). He/she applies this comprehended knowledge in his/her design (application).



Bloom's Pyramid of Knowledge

But this application of knowledge depends on a high level of study of details and conditions related to site, users, project's requirement, and the environment among other issues (analysis). This study of elements and factors are used to compose appropriate solutions (synthesis). These proposed solutions are compared among each other and against developed criteria from previous experiences in order to conclude with a final proposal (evaluation).

Thus, learning outcomes of architectural design studios can be summarized in the following table. The Basic Design studio and the Graduation Project Studio are not included as the first covers basic formal compositions only and the Graduation Project should be comprehensive and cover all issues in depth.

Learning Outcomes of the Main Eight Architectural Design Studios at IUST

[illegible]

[illegible]

The six levels of Bloom's Pyramid are divided into three classes in order to respond to the three levels of learning outcomes:

1. Level One: knowledge and comprehension
2. Level Two: application and analysis
3. Level Three: synthesis and evaluation

Accordingly, each issue in the table can be clearly classified in accordance with the three levels of learning outcomes based on the semester in which it is taught.

REFERENCE POINTS FOR THE DESIGN AND DELIVERY OF DEGREE PROGRAMMES IN LAW

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V. Elaboration of the Meta-Profile for Law

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4. Effective Learning Outcomes

I. Introduction

The Tuning Project relating to the Middle East and North Africa ("T-MEDA") lead by the University of Deusto involves a subject area group for law ("Law SAG") besides other groups of tourism, architecture, and nursing. The Law SAG includes 15 partner universities from the Middle East and North Africa. In line with the methodology and objectives of "tuning",¹⁰ the Law SAG aims to:

- Identify and analyse similarities and differences between the law programmes of the Partner Universities;
- Produce a competence-centered meta-profile for law based on the information shared and experience exchanged by and between the Partner Universities through the tuning project;
- Develop a degree profile and review its implementation at one of the Partner universities for one academic year during the period of the T-Meda Project.
- Generate a report describing the process followed, the results reached, and lessons learned so that the achievements of the T-Meda Project may be an international reference for developing models of teaching, learning and assessment in law programmes.

The following subsections introduce the partners, the relevance of the tuning methodology for them, and the similarities and disparities among their law programmes.

1. The Partners

The partner universities represented in the Law SAG are (in the alphabetical order):

- University of Algeria 1 (Algeria), represented by Madjid Kaci.
- Arab International University (Syria) represented by Maher Kabakibi.
- Beirut Arab University (Lebanon) represented by Abdullah Abdulkarim Abdullah.
- Cairo University (Egypt) represented by Ahmed Weshahi.
- Hashemite University (Jordan) represented by Mutasim Al Qudah.
- Holy Spirit University of Kaslik (Lebanon) represented by Darina Saliba.
- Islamic University of Gaza (Palestine) represented by Basem S. M. Boshnaq.

¹⁰ An introduction to the Tuning Academy and its activities can be found at:
<http://tuningacademy.org/tuning-academy/?lang=en>

- University of Jendouba (Tunisia) represented by Saoussen Krechen EP Khalfallah.
- University Mohammed First (Morocco) represented by Yahya Haloui.
- University of Moulay Ismail (Morocco) represented by Mohamed Benjelloun.
- University of Mouloud Mammeri de Tizi Ouzou (Algeria) represented by Houria Yessad.
- University of Omar Al mukhtar (Libya) represented by Esam F Husain Alhain.
- Palestinian Ahilyeh University College (Palestine) represented by Sana Totah.
- University of Tunis (Tunisia) represented by Nouredine Kridis and Mohamed Ali Benzina.
- Yarmouk University (Jordan) represented by Mohammad Bashayreh.

The Law SAG also comprises four experts from European partner universities: Prof. Dr. Andrea Gattini, Università Degli Studi Di Padova; Dr. Maria Luisa Sanchez Barrueco, Universidad de Deusto; Prof. Dr. Jenneke Bosch-Boesjes, Rijksuniversiteit Groningen; Dr. Andrey Kuvshunov, London School of Economics and Political Sciences.

2. The Relevance of the Tuning Methodology for the Partner Universities

Considerable steps have been taken, or are underway, towards reforming higher education in the countries of the Partner Universities. These steps come in furtherance of strategic plans approved at the national level in each country.¹¹ This stems from the fact that higher education plays a vital role in the development of human resources, which is a core capital of these countries.

In the context of such national policies, faculties of law of the Partner Universities have been reviewing their programmes. They have adopted explicit statements of their respective missions and objectives. In several countries, standards for accreditation at the national level are applied or planned for implementation. In Lebanon, Partner Universities are also in the process of applying for international accreditation from international competent agencies. Further, the tuning methodology paves the way for greater opportunities of cooperation among the Partner Universities and their counterparts in other countries.

The T-Meda Project has, therefore, come at the right time. The tuning methodology can foster the efforts of Partner Universities towards improving transparent programmes with defined competences and learning outcomes. The degree profile that will be designed

¹¹ For example, the national strategy for higher education in Jordan can be accessed at www.mohe.gov.jo/Portals/0/2011-2013.pdf

through the project will be a bench mark for the revision of existing programmes at Partner Universities or establishing new ones based on competences.

Competence-based law programmes may even afford graduates a chance to practice law in a country other than the country of study with lesser additional requirements. In fact, several schools of law in the United States and Europe have designed courses to expose students to different legal systems so that it might become easier for graduates to practice law in different jurisdictions.¹² It is believed that competence-based legal education could, too, place graduates in a better position to receive professional certification in other countries. Indeed, in furtherance of the goals of the Bologna Declaration 19 June 1999,¹³ the tuning methodology serves the internationalisation of legal education through facilitating student mobility between comparable and mutually equivalent law programmes.

3. A General Overview of the Law Programmes at Partner Universities

3.1. General Similarities

Twelve partner universities offer bachelor's programmes in law with common features. These programmes cover themes of the main branches of law: civil law, commercial law, administrative law, constitutional law, criminal law, public international law, private international law, civil procedure, criminal procedure, family law, and evidence.

A general perception lies behind these law programmes; namely, that faculty of laws graduate potential academics or lawyers committed to the dissemination of legal knowledge and raising awareness of the importance of the rule of law. This general perception has led to knowledge-focused programme. The courses and methods of teaching are not tailored to professional practice. Even if a programme comprises courses targeting the development of students' practical skills, such courses tend to be few and do not change the general identity of the programme.

Some of these law programmes are structured following a semester-based credit-modular system (comprising 110 Cr. H. as in Omar Almukhtar University, Libya to 141 Cr. H. at Yarmouk University, Jordan); others follow a yearly non-modular system. Arabic is the language of instruction of the law programmes in most of these twelve programmes. While Cairo University offers a law programme instructed in Arabic, it is represented in the project

¹² Joan Mahoney, 'The Internationalisation of Legal Education' 2 Amsterdam F. L. 43 (2009-2010).

¹³ Information about the Bologna Declaration and process can be found at <http://www.ehea.info/article-details.aspx?ArticleId=5> (last visited on 18 April 2015).

with a special programme instructed in English. With few exceptions, other programmes contain modules in a foreign language: English or French.

It is worth noting that the Islamic University of Gaza offers a programme in "Shariah and Law" where law modules make 78 credited hours out of 148 credits. Law programmes in other Partner Universities comprise Shariah courses of family law; family law courses at the University of Holy Spirit in Keslik are not restricted to Shari'ah.

Also, the discussions among the Law SAG revealed that the intended learning outcomes of these programmes are the same at the Partner Universities teaching law. Thus, graduates are expected to have specialized knowledge of the principles and rules of law and to be able to apply them in practical situations. However, graduates will need to improve their skills through further professional certification to integrate into professional legal practice. Indeed, in all the countries represented in the Law SAG, the legal profession, including a judicial career, depends on professional certification programmes administered by professional associations or faculty of laws, while candidates to judicial jobs are trained by special entities, like a judicial institute.

3.2. "Hidden Discrepancies" Reinforce the Justification for "Tuning"

Interestingly, while the law programmes at Partner Universities have the above common features, including similar course titles, it has turned out that courses which are apparently similar in terms of name and credit weight are in fact different in respect of the level of their content. At one Partner University a course may be designed for first year students, while it is taught at a more advanced level to students at the third or fourth years of study. Consequently, such courses cannot, in fact, be equivalent to each other.

The fact that apparent similarities between courses do not guarantee the same content or level of knowledge accentuates the relevance of competence-based courses. In other words, comparing courses in terms of targeted competences and intended learning outcomes can be more reliable when it comes to determining equivalence between courses. It follows that one can plausibly assume that academic recognition and student exchange projects should be facilitated by competence-based courses more than they could otherwise be.

3.3. Partner Universities with no Law Programmes

Three partner universities, however, do not share the above features. The University of Tunis, Tunisia, is represented with a programme focused on human rights; it does not cover

the common courses relating to the main branches of law; graduates are not generally qualified to pursue professional certification.

Further, the Hashemite University, Jordan, does not offer a bachelor's programme in law. It has a programme in accounting and commercial law that aims to graduate accountants with sufficient knowledge of commercial law tailored to their accounting profession.

The International Arab University, Syria, does not have a law programme, either. However, insights can be gathered from the law bachelor's programme of the University of Damascus, assuming that it reflects the national regulatory requirements of such a programme in Syria.

In light of this review of the existing law programmes at Partner Universities, the members of the Law SAG have discussed and produced a list of generic competences and a list of specific competences for a law programme. Following a consultation process, the Law SAG has developed a meta-profile for a law programme. The following subsections describe that process and explain the resulting competences.

II. Generic Competences – A Thematic Perspective

1. Exploring Generic Competences

The Law SAG has considered generic competences that a law student should develop as an educated person and a responsible member of society. Generic competences are here perceived as skills, attitudes, and abilities that can help improve specific competences for law. For instance, basic and general thinking and analytical skills and the ability to make logical decisions are required generally in managing day-to-day affairs; at the same time, these skills underpin the professional work of a lawyer in the treatment of legal materials and questions and the application of the law to a given set of facts.

Also, as a member of society, interacting with and serving others, a university graduate is expected to have developed communication skills, sense of commitment and dedication, and the ability to act ethically.

Thus, the list of generic competences initially proposed by the Law SAG contained thinking skills, organizational skills, communication skills, and social and ethical responsibilities.

The initial list of generic competences was then discussed among the four subject areas. As a result of this discussion, the following generic competences have been adopted:

- Empower others.

- Sense of dedication.
- The preservation of cultural heritage and values.
- Organizational skills.
- Work autonomously.
- Respect for diversity and multiculturalism.
- The protection and preservation of the environment.
- Search for information from a variety of sources.
- Skills in the use of information and communication technologies.
- Communicate in a second language.
- Health and safety procedures.
- Initiative.
- Lead effectively.
- Be flexible and adapt to different situations.
- Assertive.
- Human rights.
- Self-motivated.
- Apply knowledge in practical situations.
- Work in an interdisciplinary team.
- Make logical decisions.
- Be innovative and creative.
- Act ethically with social responsibility.
- Maintain quality of work.
- Identify and resolve problems.
- Maintain continuous education.
- Communicate orally and in writing with different audiences.
- Have critical thinking, analysis and synthesis.
- Manage time effectively.

2. The Process by which the List of Generic Competences Has Been Produced

In their first meeting at the Dead Sea, Jordan, in May 2014, the members of the Law SAG mapped a number of the law programmes offered at partner universities. It has been agreed that the existing law programmes share common features and are based on similar perspectives. Thus, all the relevant countries are civil law countries and a law degree is a necessary but not sufficient requirement for professional legal practice.

The Law SAG, aided by four experts from European universities, conducted a brainstorming exercise to reach to a general concept of generic competences and a common view as to the role of a lawyer. Numerous general competences were suggested. The members then considered the generic competences proposed in previous tuning projects in Africa, Latin America, Europe, Russia, and the United States. It was found that much of the suggested competences in these projects matched or approximated the generic competences which were mentioned during the mapping of some law programmes in partner universities and the brain storming exercise.

Some generic competences were regarded as closely relevant for a law programme. These include thinking and communication skills, and ethical responsibilities. Other generic competences were considered and deemed irrelevant for a law programme. For example, the commitment for health and safety procedures was found not to be relevant for a law programme – no specific competence was thought to be based on such a general competence.

The Law SAG did not consider a few generic competences, which have subsequently been incorporated in the final list of generic competences produced by the four SAGs in the T-MEDA Project. These competences include: being assertive and the ability to empower others.

Conversely, in substance, the final list of generic competences did not leave out generic competences proposed by the Law SAG. In terms of form and phrasing, some competences have been merged or re-worded.

III. Formulating a List of Specific Competences for a Law Programme

1. Identifying Specific Competences for Law Programmes

The Law SAG has also produced a list of nineteen specific competences for a law programme. These specific competences can be categorized as follows:

a. the level and scope of legal knowledge:

- Knowledge of, and ability to, interpret and apply the general principles of law and the legal system.
- Knowledge of, and ability to, interpret and apply legal texts and principles of the national and international legal system in specific cases.
- Critical awareness of philosophical, political, social, economic, historical, personal and psychological phenomena and taking them into consideration in the creation, interpretation and application of law.
- Understanding the principles and process of alternative dispute resolution means in resolving disputes.

b. thinking, reasoning and research skills:

- Good capacity for legal reasoning and argumentation, and understanding different points of view and articulating them in order to propose reasonable solutions.
- Capacity to analyse complex legal materials and to summarise their arguments precisely.
- Capacity for critical analysis of the legal system.
- Capacity to take appropriate legal action in different venues.
- Capacity to determine the information required to formulate a legal opinion.
- Capacity to apply scientific research criteria in the course of professional activity.
- Capacity to use necessary electronic legal resources in the course of conducting a legal practice.
- Capacity to contribute to the creation of new legal solutions and institutions in general and particular cases.

c. communicating in clear and accurate legal language:

- Capacity for good written and oral expression, in fluent technical language, using precise, clear legal terms.

- Sufficient knowledge of a foreign language to be able to work efficiently in the legal field.
- professional ethics:
- Capacity to act faithfully, diligently and transparently in defending the interests of persons represented.
- Awareness of the ethical dimension of the legal professions and of the social responsibility of law graduates, and acting accordingly.

d. Commitment.

- Commitment to justice and fairness in all situations in which the law graduate is involved.
- Commitment to human rights, democratic governance and the rule of law.
- Capacity to provide legal expertise as a member of a legal team or an interdisciplinary team.

2. Description of the Process of Identifying Specific Competences for Law

The members of the Law SAG reached an agreement on the above-listed specific competences through identifying the competences that associate directly with the general intended outcome of a programme of law as set out earlier in subsection 'II.4.' It is self-evident that realizing that general outcome requires the development of thinking skills, communication skills, and commitment to utilize legal knowledge to serve the interests of clients but also the community at large.

In addition to those specific competences that can be directly inferred from the definition of the general outcome of a law programme, the Law SAG has critically reviewed and discussed lists of specific competences for law programmes identified in previous tuning projects. In particular, it was felt that the list of specific competences produced by the 'tuning Europe' project most closely reflected the relevant specific competences from the perspective of the participating members. Yet, some competences have been merged; others left out as redundant.

Further, the Law SAG took into consideration the prospects for the legal career in the countries of the Partner Universities and the Middle East and North Africa in general. Two facts merit to be examined here. First, most of the countries represented in the Law SAG, like Egypt, Jordan, Lebanon, Palestine, and Syria, constitute a source of educated work-force employed in other countries of constant economic development and, consequently, increasing demand for workers and professionals.

The second fact bearing on the prospects of legal careers is that most of the countries represented in the Law SAG also set and implement plans to enhance the domestic private sector and to attract foreign investments. These plans involve significant changes in the role of the private sector and the needs and objectives that underlie legislative reform in respect of various sectors. To mention just one example illustrating such changes and reforms, most of the relevant countries have introduced competition laws during the past ten years, marking the shift from state monopoly of several utilities to privatization and free market policies.

The combined effect of the aforesaid two facts is two-fold. The domestic market is set for increasing competition, new forms of legal relationships (e.g., private-public partnerships), and even a new paradigm of the making and implementation of law (e.g., the introduction of autonomous regulatory bodies vested with wide discretionary powers to set regulations and rules).

Besides, while lawyers are expected to cope with these changes, they should also be able to work in new mediums comprising international members whether at the domestic level or through working in other countries.

These prospective developments, which have indeed started in some countries, have informed the specific competences for law. For instance, the list of the specific competences includes communicating in a second language, working in interdisciplinary teams, and knowledge of the international legal system.

Moreover, the rapidity of economic and technological developments accentuates the nature of the law as an ever-changing and ever-developing field of knowledge. Any programme of law is not expected to teach all new legal issues, types of relationships, and responsibilities triggered by such developments. Rather, a good programme of law is that which trains students to self-learning. Hence, the specific competences relating to: "Capacity to apply

scientific research criteria in the course of professional activity" and "Capacity to use necessary electronic legal resources in the course of conducting a legal practice," which further the generic competences of continuous education and research skills.

IV. Consultations and Reflections

As part of the tuning methodology, a survey has been conducted to assess and verify the proposed lists of generic and subject specific competences. The questionnaire requested respondents to rate each generic and specific competence, separately, in terms of both importance and achievement, using a scale from 1 (indicating lowest rating) through 4 (indicating highest rating). The respondents were also asked to rank five generic competences and five specific competences as the most important ones in descending order.

The members of the Law SAG circulated a questionnaire in their respective countries and localities. The total number of responding stakeholders in law programmes was 587 respondents in respect of the generic competences, distributed as follows: 121 academics, 104 employers,¹⁴ 234 students, and 124 graduates. As far as the specific competences are concerned, there were 454 respondents, comprising 101 academics, 82 employers, 166 students, 105 graduates.

1. Results Relating to the Generic Competences

The results of the survey regarding the list of generic competences have validated the original list. Not only do the results endorse the importance of the generic competences, but also the analysis of these results shows a general consensus among different groups of stakeholders. Indeed, the results generated from the area of law ("SAG level") with the results of the respondents in the whole survey ("the Project level") are mutually supportive. The validation of the generic competences can be demonstrated in terms of the rating of importance and ranking according to the results of the survey.

1.1. The rating of the importance of the generic competences

All generic competences were rated as being higher than 2. Since the questionnaire used a scale of importance ascending from 1 to 4, the results indicate that all the generic

¹⁴ Employers include legal practitioners, judges, relevant NGOs, and heads of legal departments at private and governmental entities.

competences are important. Yet, differences exist when it comes to determining which generic competences are most important. The SAG Law agreed that the rate of 3 can be used as a delimiting line to indicate the most important competences. This is because less generic competences were rated below 3.

At the Project level, all the generic competences, except for two, were rated higher than "3". Only the competence of "working autonomously" and "empowering others" were rated below "3."¹⁵ In harmony with this result, all respondents at the SAG level rated working autonomously and empowering others below 3. However, graduates at the SAG level also rated the following generic competences below 3: respect for multiculturalism, to be flexible, thinking skills, sense of dedication, ability to work in a legal and interdisciplinary team.

1.2. The ranking of most important generic competences

The questionnaire asked the respondents to list top five generic competences in terms of importance. The analysis of these lists was as follows. The competence that ranked first in a list was assigned five point; the second 4 points, the third 3 points, the fourth 2 points, the fifth 1 point. Then, the mean of the points gained by each generic competence was calculated, and the competences were put in ascending order according to the mean of the points reflecting the ranking.

To determine which generic competences ranked as most important ones, the Law SAG has decided that the top five generic competences are those which attained the highest mean. Thus, different groups of stakeholders were deemed to concur as to the level of importance of a generic competence if this competence has a high mean, since this reveals that it has been chosen by respondents with relatively high ranking among the five top generic competences.

According to this approach, the following generic competences have appeared among the top five competences according to each group of respondents at the Project level and the SAG level:

- (a) managing time effectively.
- (b) Have critical thinking, analysis and synthesis.

¹⁵ Academics from all subjects rated only working autonomously below 3; employers, students, and graduates, rated "working autonomously" and "empowering others" below 3 on the scale of importance ascending from 1 to 4.

- (c) Identify and resolve problems.
- (d) Maintain continuous education.
- (e) Communicate orally and in writing with different audiences.
- (f) Assertive.
- (g) Maintain quality of work.
- (h) Act ethically with social responsibility.

Among the above competences, the first three competences (a, b, c) appeared among the top five generic competences according to each individual group of stakeholders whether at the Project level or the SAG level. The rest of the above competences (i.e., d, e, f, g, h) had advanced ranking in some of but not all the lists of ranking according to different groups of stakeholders.

1.3. The rating of the level of achievement of the generic competences

The results of the survey point out to the fact that all stakeholders think that the generic competences are not achieved to a satisfactory level. The rate of achievement was invariably below 3 for each generic competence according to each group of consulted stakeholders. (The low rating of achievement will be considered in subsection 3 below.)

2. Results Relating to the Specific Competences from the Perspective of Stakeholders from the Law Area

2.1. The validation of the list of specific competences for a law programme

The survey relating to the specific competences for a law programme has validated the list of specific competences produced by the Law SAG. All the specific competences were rated important; the lowest mean of the rating of a specific competence is 3.02 on the scale of importance ascending from 1 to 4.

Furthermore, the analysis of the results of the survey in respect of the subject specific competences revealed generally high correlation between the views of different groups of stakeholders. And the following specific competences were less important (while they have still attained a rate of importance higher than 3):

- Critical awareness of philosophical, political, social, economic, historical, personal and psychological phenomena and taking them into consideration in the creation, interpretation and application of law.
- Understanding the principles and process of alternative dispute resolution means in resolving disputes.
- Capacity for critical analysis of the legal system.

At the other end of the scale, the following specific competences were rated among the most important competences based on the correlation factor:

- Knowledge of, and ability to, interpret and apply the general principles of law and the legal system.
- Knowledge of, and ability to, interpret and apply legal texts and principles of the national and international legal system in specific cases.
- Commitment to justice and fairness in all situations in which the law graduate is involved.
- Awareness of the ethical dimension of the legal professions and of the social responsibility of law graduates, and acting accordingly.
- Good capacity for legal reasoning and argumentation, and understanding different points of view and articulating them in order to propose reasonable solutions.
- Capacity for good written and oral expression, in fluent technical language, using precise, clear legal terms.
- Capacity to act faithfully, diligently and transparently in defending the interests of persons represented.

2.2. The ranking of most important specific competences

As with the ranking of generic competences explained in subsection 1.2 above, respondents were asked to list five top specific competences. The Law SAG has taken the same approach described above to determine the most important specific competences. Thus, the following specific competences have been chosen by the respondents as most important:

- (a) Knowledge of, and ability to, interpret and apply the general principles of law and the legal system.
- (b) Capacity to act faithfully, diligently and transparently in defending the interests of persons represented.
- (c) Commitment to justice and fairness in all situations in which the law graduate is involved.
- (d) Knowledge of, and ability to, interpret and apply legal texts and principles of the national and international legal system in specific cases.
- (e) Awareness of the ethical dimension of the legal professions and of the social responsibility of law graduates, and acting accordingly.
- (f) Good capacity for legal reasoning and argumentation, and understanding different points of view and articulating them [...].
- (g) Capacity to provide legal expertise as a member of a legal team or an interdisciplinary team.
- (h) Capacity for good written and oral expression, in fluent technical language, using precise, clear legal terms.
- (i) Sufficient knowledge of a foreign language to be able to work efficiently in the legal field.

The first three specific competences mentioned above (a, b, c) are deemed to be the most important ones, since they have appeared among top five competences chosen by each group of stakeholders in the area of law. The other six competences mentioned above variably appeared in the ranking lists produced by the respondents.

2.3. The rating of the level achievement

As with the generic competences, respondents rated the level of achievement of the specific competences as relatively low. While all groups of respondents were unsatisfied with the level of achievement, the reasons behind the low rating of achievement may differ from one group of respondents to another. This will be discussed in the next section.

3. Interpretation of the Results

Based on the discussions within the Law SAG, the following observations can be made to interpret the results of the survey in respect of the importance and level of achievement of the competences.

3.1. Observations regarding the overall agreement on the importance of most of the generic and specific competences

The appreciation by the respondents of the importance of the vast majority of the generic and specific competences indicates a general awareness of the need for practice-tailored legal education. This is underlined by the fact that generic competences relating to thinking and communication skills were rated among the highest important competences. And the importance of these skills harmonizes with the high level of importance assigned to specific competences involving legal research, thinking, reasoning and communication.

Indeed, the aspects of the legal profession have been implicitly recognized through the rating of important competences. Thus, the Law SAG noticed that the most important specific competences belong to three main categories: knowledge of law, thinking and reasoning, and professional ethics and commitment.¹⁶

The high rates of unemployment in several countries in North Africa and the Middle East may explain the overall concurrence among academics, students and graduates, on the one hand, and the employers, on the other, regarding the significance of skills and competences in legal education. In response to unemployment, universities seek to adapt their academic programmes to the needs of the market with a view to increasing the "employability" or competitiveness of their graduates at the regional and international levels.

On the other hand, marginal discrepancies between the competences might be due to misunderstanding of certain competences as worded in the questionnaire. The possibility of misunderstanding stems from the apparent inconsistency in the rating of some inter-related or mutually-supplementing competences. For instance, the specific competences relating to the awareness of philosophical and other phenomena underpinning the law and the

¹⁶ It is worth noting that some competences (generic: commitment, human rights; specific: human rights and rule of law, proposing new legal systems and solutions) were rated by some stakeholders as more important than analytical skills and applying knowledge in practical situations. This might echo current local needs in the Middle East and North Africa amid political instability or the requirements of a transition to democracy or, in some cases, the needs of transitional justice.

understanding of alternative means of dispute resolution were rated as less important although they can be regarded as particular aspects of the knowledge of the law, which was rated as most important. Since most of the competences have been palpably rated as important, misunderstanding is resolved in favor of the importance of the relevant competences. If misunderstanding could interpret such inconsistencies, it can be safely concluded that all competences have been endorsed as important.

3.2. Observations regarding the low rating of the level of achievement

While the respondents to the questionnaire concurred generally on the importance of the generic and specific competences (with discrepancies in the order of importance), they have also demonstrated a common view that these competences are not achieved to a satisfactory level by existing law programmes – Not a single competence was rated 3 or higher. At first hunch, this result might not be surprising since existing programmes are not, admittedly, competence-based in the first place. However, other factors may have contributed to the low rating of achievement of competences.

First, it is not uncommon that a gap may exist between the expectations and needs of employers and the way faculties of law define their mission or objective and design law programmes.¹⁷ The market may have high expectations from a law programme. By contrast, when designing a law programme, academics may assume that employers will provide recent graduates with training and continuous development.

A second factor may be that the skills taught through existing law programmes do not match the exact needs of employers. For instance, in respect of communicating in writing, students may be taught how to draft a statement of case but not contracts, whereas employers may expect students to be trained to various forms of legal writing.

¹⁷ The gap between the expectations of employers and the way law programmes are designed has been recognized and addressed in other regions. For example: Alexa Z. Chew and Katie Rose Guest Pryal, 'Bridging the Gap between Law School and Law Practice' presented at the University of North Carolina School of Law 25th Annual Festival of Legal Learning, 13-14 February, 2015, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2575185 (last visited on 10 April, 2015); James E. Moliterno, 'The Future of Legal Education Reform' 40 Pepperdine L. Rev. 423 (2013) at 427; also, on Australia see: <http://www.liv.asn.au/Mobile/Home/PresidentsBlog/BlogPost.aspx?blogpostid=347534> (last visited on 10 April, 2015); and for a general study on the gap between academic programs and employers' expectations in South Africa see: Hanlie Griesel and Ben Parker, Graduate Attributes: A Baseline Study on South African Graduates from the Perspective of Employers (2009) Higher Education South Africa and South African Qualification Authority, at http://www.saqa.org.za/docs/genpubs/2009/graduate_attributes.pdf (last visited on 5 April, 2015).

Thirdly, the employers' assessment of the level of achievement may point out to the lack of sufficient connection between universities and employers: Employers might not be consulted when programmes are revised. Consequently, academics may focus on skills other than those needed for the market. Hence, while a law programme may comprise certain skills these skills might simply be irrelevant for the market.

V. Elaboration of the Meta-Profile for Law

1. Description of the Process

At the second general meeting held in Bilbao, Spain, 28 September to 3 October, 2014, the Law SAG has developed a meta-profile for a law programme based on its review and discussion of the results of the consultation process. Thus, the generic competences were first reviewed, and a final list of generic competences from the perspective of the Law SAG has been prepared. This involved omitting some generic competences, merging others, and retaining a number of the original proposed competences.

In determining the final list of the generic competences, the Law SAG took into account:

- Consensus among stakeholders (high correlation), which indicates that the relevant generic competences should be retained.
- Ranking by stakeholders as a controlling factor in respect of some competences that were given varying weight by stakeholders. The Law SAG found that the ranking of competences by respondents indicated priority among important competences and was not meant to underestimate those competences which were not ranked among top 5 competences.
- Judgment of the Law SAG, especially in case of (apparent) inconsistencies in the results of the consultation process. (The interpretation of the results in the previous section explains examples of such inconsistencies.)

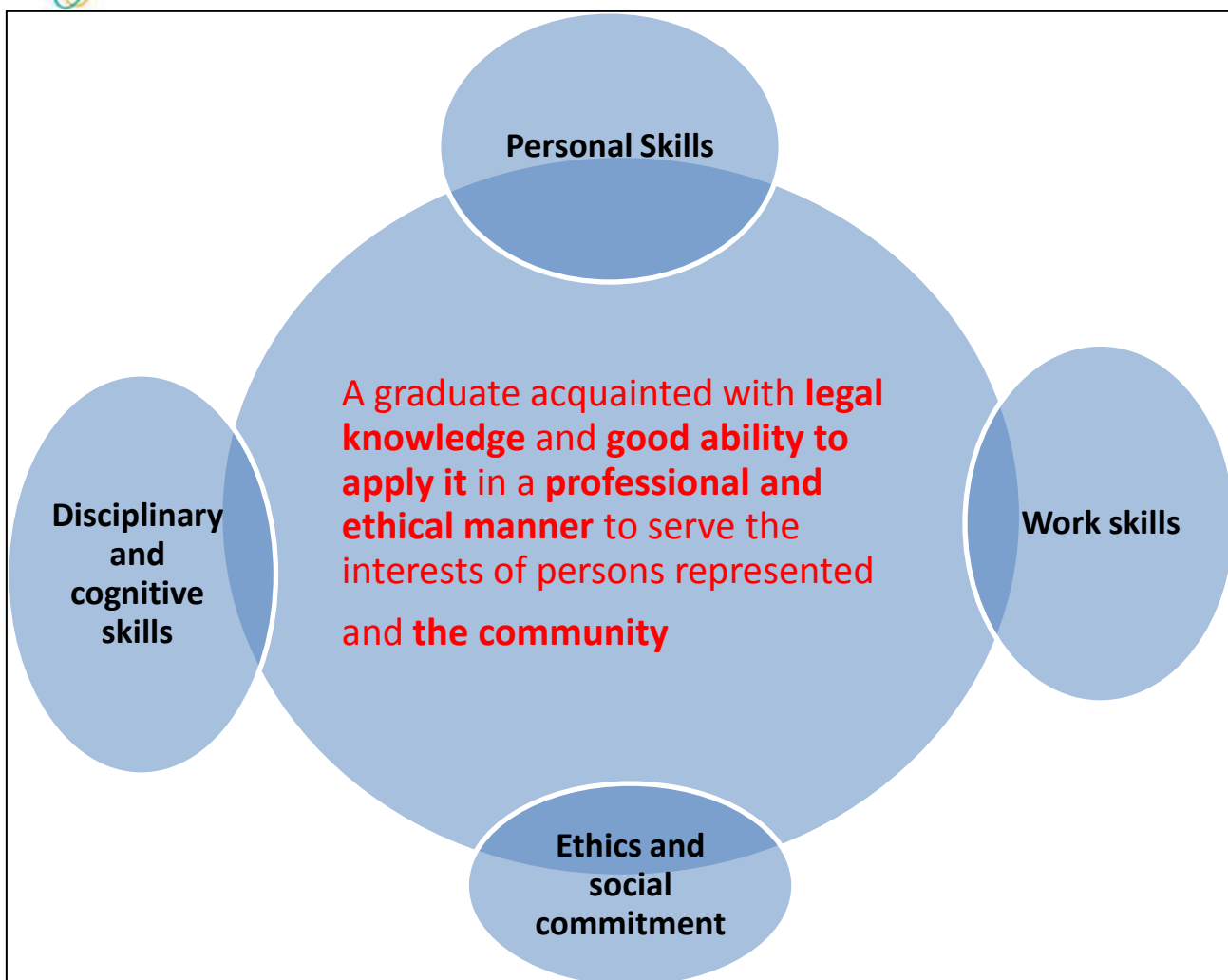
A similar approach was taken to reviewing the specific competences. However, the Law SAG decided to keep the original list of specific competences without any omission. Indeed, each of the specific competences tended to be rated high by three separate groups of the stakeholders out of four groups, albeit different groups in respect of this or that competence.

While the original list of specific competences has been retained, the Law SAG agreed on the following twenty generic competences (out of the original 28 proposed competences):

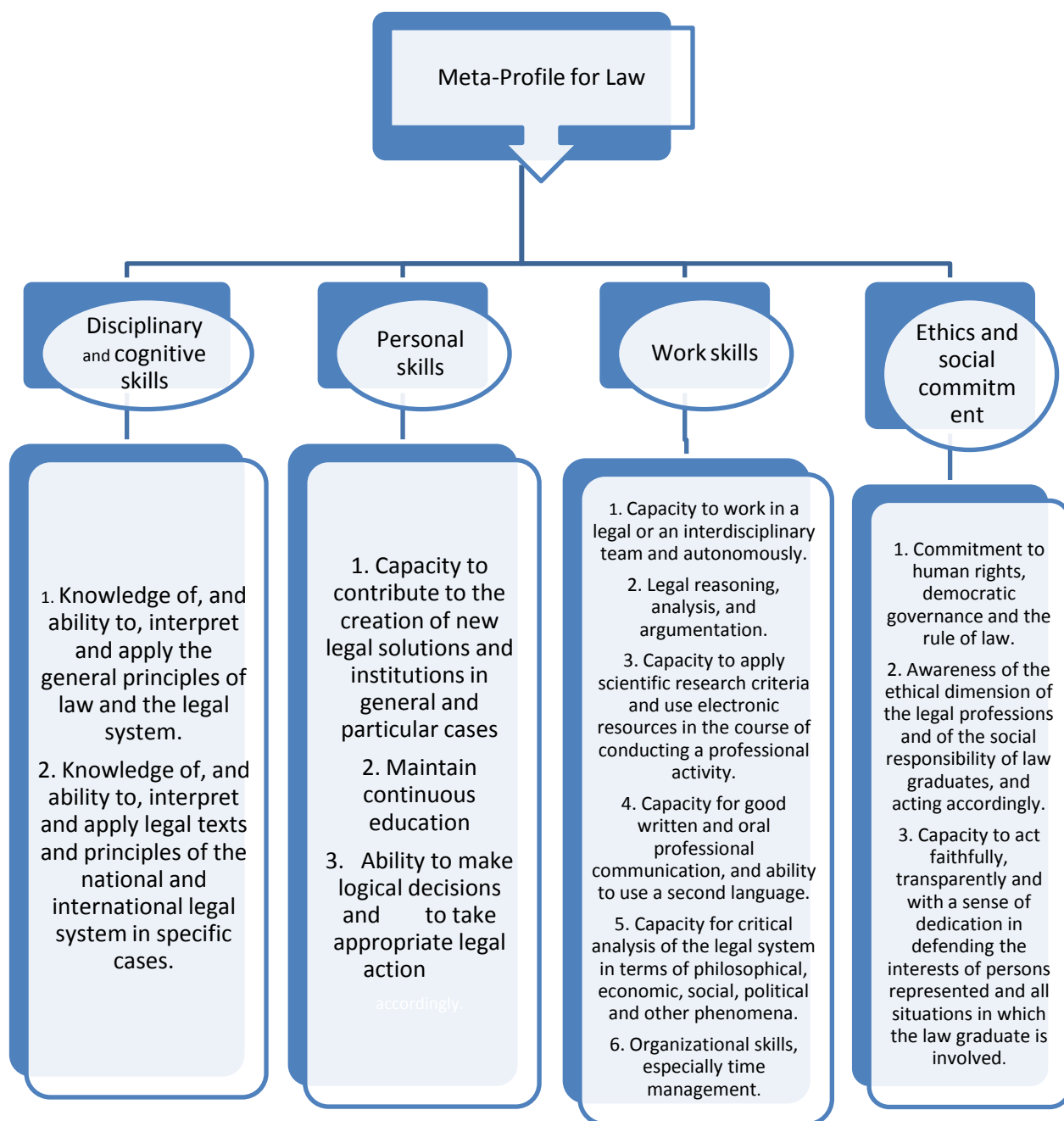
- (1) Maintain continuous education
- (2) Make logical decisions
- (3) Lead effectively
- (4) Be innovative and creative
- (5) Be flexible and adapt to different situation
- (6) Initiative
- (7) Self-motivated
- (8) Assertive
- (9) Have critical thinking, analysis and synthesis
- (10) Identify and resolve problems
- (11) Apply knowledge in practical situations
- (12) Manage time effectively
- (13) Communicate orally and in writing with different audiences.
- (14) Work in an interdisciplinary team and autonomously.
- (15) Communicate in a second language
- (16) Search for information from a variety of sources, using information and communication technologies.
- (17) Organisational skills, especially time management
- (18) Act ethically with a sense of dedication and social responsibility
- (19) Awareness and attentiveness for community interests, including environment, values, respect for diversity and multiculturalism.
- (20) Human rights

2. Presentation of the Meta-Profile for a Law Programme

The Law SAG has synthesized the generic and specific competences. AS a result, fifteen competences were identified to form the meta-profile for a law programme. As the next graphic shows, these competences belong to four main categories.



The four synthesized categories are broken down as follows:



The components of the meta-profile and their characterization under four main categories link with the original generic and specific competences. The meta-profile is meant to encompass the essential competences validated by the survey of the generic and specific competences. The following table shows the links between each component of the meta-profile and its roots in the generic competences (as revised by the Law SAG in the third general meeting held in Spain) and the specific competences:

Revised Generic Competences	Specific Competences	Key Competence	Main Category
Apply knowledge in practical situations	<ul style="list-style-type: none"> - Knowledge of, and ability to, interpret and apply the general principles of law and the legal system. - Knowledge of, and ability to, interpret and apply legal texts and principles of the national and international legal system in specific cases. 	<p>Knowledge of, and ability to, interpret and apply the general principles of law and the legal system.</p> <p>Knowledge of, and ability to, interpret and apply legal texts and principles of the national and international legal system in specific cases.</p>	Disciplinary and cognitive skills
<ul style="list-style-type: none"> - Be innovative and creative. - Be flexible and adapt to different situation. - Initiative. - Self-motivated. - Assertive. 	Capacity to contribute to the creation of new legal solutions and institutions in general and particular cases.	Capacity to contribute to the creation of new legal solutions and institutions in general and particular cases.	Personal skills

<ul style="list-style-type: none"> - Search for information from a variety of sources, using information and communication technologies. - Maintain continuous education 	<p>Capacity to use necessary electronic legal resources in the course of conducting a legal practice.</p>	<ul style="list-style-type: none"> – Maintain continuous education. 	
<p>Make logical decisions.</p>	<p>Capacity to take appropriate legal action in different venues.</p> <p>Capacity to determine the information required to formulate a legal opinion.</p> <p>Understanding the principles and process of alternative dispute resolution means in resolving disputes.</p>	<ul style="list-style-type: none"> – Ability to make logical decisions and to take appropriate legal action. 	
<p>Lead effectively.</p>	<p>Capacity to provide legal expertise as a member of a legal team or an interdisciplinary team.</p>	<ul style="list-style-type: none"> – Capacity to work in a legal or an interdisciplinary team and autonomously. 	<p>Work skills</p>

<ul style="list-style-type: none"> - Have critical thinking, analysis and synthesis. - Identify and resolve problems. 	<p>Good capacity for legal reasoning and argumentation, and understanding different points of view and articulating them in order to propose reasonable solutions.</p> <p>Capacity to analyse complex legal materials and to summarise their arguments precisely.</p> <p>Capacity for critical analysis of the legal system.</p>	<ul style="list-style-type: none"> – Legal reasoning, analysis, and argumentation. 	
<p>Make logical decisions.</p>	<p>Capacity to apply scientific research criteria in the course of professional activity.</p>	<ul style="list-style-type: none"> – Capacity to apply scientific research criteria and use electronic resources in the course of conducting a professional activity. 	
<ul style="list-style-type: none"> - Communicate orally and in writing with different audiences. 	<p>Capacity for good written and oral expression, in fluent technical language, using precise, clear legal terms.</p>	<ul style="list-style-type: none"> – Capacity for good written and oral professional communication, 	

- Communicate in a second language.	Sufficient knowledge of a foreign language to be able to work efficiently in the legal field.	and ability to use a second language	
Have critical thinking, analysis and synthesis.	Critical awareness of philosophical, political, social, economic, historical, personal and psychological phenomena and taking them into consideration in the creation, interpretation and application of law.	Capacity for critical analysis of the legal system in terms of philosophical, economic, social, political and other phenomena.	
- Time management. - Lead effectively.	Dedication Capacity to apply scientific research criteria in the course of professional activity.	– Organizational skills, especially time management	
- Human rights.	- Commitment to justice and fairness in all situations in which the law graduate is involved. - Commitment to human rights, democratic governance and the rule of law.	Commitment to human rights, democratic governance and the rule of law	Commitment
- Awareness	- Awareness of the ethical	– Awareness of	

and attentiveness for community interests, including environment, values, respect for diversity and multiculturalism.	dimension of the legal professions and of the social responsibility of law graduates, and acting accordingly.	the ethical dimension of the legal professions and of the social responsibility of law graduates, and acting accordingly.	
- Act ethically with a sense of dedication and social responsibility.	- Awareness of the ethical dimension of the legal professions and of the social responsibility of law graduates, and acting accordingly.	– Capacity to act faithfully, diligently and transparently in defending the interests of persons represented.	

3. An Explanation of the Main Components of the Meta-Profile for Law

The results discussed thus far suggest that the way existing law programmes are designed does not match the expectations of the employers. Recognizing that recruitment of recent graduates is a good indication of the quality of the learning outcomes of an academic programme, the Law SAG found that a meta-profile for law should address the skills and values (the combination of which makes competences) expected by the employers (i.e., those rated as important) in addition to the role of law graduates in the society in general.

To elaborate, the Law SAG considered the role of lawyers in society, taking into account the expectations of the employers as inferred from the results of the survey. Thus, while realizing that existing programmes of law are knowledge-based as opposed to competence-based education, the Law SAG decided to formulate a general outcome of programme of law that is tailored towards professional practice.

It is appreciated that, in recognising the need for meeting the market expectations of professional skills, the Law SAG gathers evidence for the validity of this approach, not only from the results of the survey in the T-Meda Project, but also from a widely held view that professional skills should be integrated in legal education.¹⁸ An underlying justification for this approach may be that the faculties of law should teach students what they need - not what academics think better.¹⁹ Obviously, students ultimately look forward to practicing law in one form or another.

The members of the group discussed the facets of the legal profession. It turned out that a common conception of the legal profession and the role of lawyers exists within the Law SAG. Thus, the legal profession is perceived to involve:

- Dispute resolution and providing quality legal representation in litigation or alternative means of dispute resolutions, including arbitration and mediation;
- Legal consulting and drafting, taking into account serving the interests of clients and helping them achieve their goals in accordance with the law;
- Commitment to justice and the promotion of the rule of law;
- Policy making and contributing to legislative policy and drafting;
- Contribution to the public awareness of legal issues and rights.

To fulfill the role of a lawyer, a law graduate should be acquainted with legal knowledge and good ability to apply it in a professional and ethical manner to serve the interests of persons represented and the community. This general definition of a law graduate conforms to the mission of Partner Universities from the perspective of the faculties of law. It is also consistent with the perception of the role of a lawyer as demonstrated by the results of the analysis of the survey conducted through the consultation process.

¹⁸ On this view, see: Denise Platfoot Lacey, 'Embedding Professionalism into Legal Education' 18 J. L. Bus. & Ethics 41 (2012); Ian Holloway, 'The Evolved Context of Legal Education' 76 Saskatchewan L. Rev. 133 (2013).

¹⁹ Cf David R. Barnhizer, 'The Purposes and Methods of American Legal Education' 36 J. Legal Prof. 1 (2011-2012) at pp. 5-8.

Thinking and analytical skills are essential for the legal practice. Students should be trained to analyse factual situations to identify problems. They are also expected to be able to interpret legal texts. Beyond the analysis of factual situations and identifying problems, students should have the ability to provide solutions. Hence, problem solving is an additional essential skill recognized in the meta-profile. The ability to take appropriate legal action demonstrates the outcome of analysing the facts, identifying the problem, and providing a solution.

Ethical and social responsibility was emphasized by the results of the analysis of the outcome of the consultation process. Therefore, generic and specific competences involving ethics, social responsibility and commitment to public concerns and issues have been synthesized in one category as "ethics and social commitment." Graduates should have developed a sense of commitment; commitment to fairness and justice, the promotion of the rule of law, and the improvement of legal institutions in the society.

Further, graduates should develop interactive and personal skills. These skills are vital for a lawyer to be able to deliver competent legal representation, managing cliental relationships, and to negotiate on behalf and for the interest of clients. Pertinent competences have been grouped in a category of "personal skills." The relevance of Self-learning or maintaining continuous education for the legal practice is accentuated by the fact that law is ever-changing and the knowledge acquired during academic studies will not remain relevant in practice for ever. As one commentator has put it: "No Lawyer knows all the law that would be useful to know. Lawyers should have a base-line level of knowledge of the core legal subjects; beyond that every lawyer must know how to learn what is needed to serve his or her clients."²⁰

It is noted that while some competences were not much emphasized by stakeholders, such as working in an interdisciplinary team or autonomously and sense of dedication, the Law SAG highlighted them in the meta-profile. This is because they are consistent with other important competences relating to work and commitment. Indeed, the skills and values embodied in the other competences cannot be plausibly fulfilled without sufficient organisational and work skills.

²⁰ James E. Moliterno, 'The Future of Legal Education Reform' 40 *Pepperdine L. Rev.* 423 (2013) at 431.

Further, in determining the components of the meta-profile, the Law SAG took into account prospective developments linked with globalization and the trend of liberalizing the market, while taking into account community needs. This underpins competences like second language, knowledge of international legal systems, and work in interdisciplinary teams.

VI. Designing Law Degree Profile

Designing a degree profile for law has been based on a review of the meta-profile developed by the Law SAG. This review took the form of contrasting the meta-profile with existing law programmes of Partner Universities.

In light of the review of the meta-profile, the Law SAG has embarked on designing a law degree profile, a task that was carried out during the third general meeting held in Nicosia, Cyprus, in February 2015. A degree profile aims to explain the key competences contained in the meta-profile; determine the courses to be taught; and associate each course with the appropriate key competence and effective learning outcomes.

1. Contrasting the Meta-Profile with Existing Law Programmes

Members of the Law SAG have reported, individually, a general comparison between the profiles of their respective law programmes and the meta-profile for law.

The conclusions reached in these reports point out to the fact that their law programmes converge with the meta-profile in respect of various competences. However, competences are recognized implicitly – existing programmes lack sufficient transparency in presenting the pertinent competences, objectives, and learning outcomes. Further, discrepancies exist in terms of certain competences not being defined in the existing profiles or the lack of specific definition of the competence-based objectives of each module.

Therefore, it has been generally commented by reporters that the meta-profile for law can be benefited from in improving existing description of certain courses and that it can also contribute to the development of relevant quality assurance measures relating to the definition and measurement of intended learning outcomes.

2. Finalizing Key Competences

Key competences have been incorporated into the degree profile virtually as stated in the meta-profile. However, the Law SAG has identified the levels of progress of a number of the

competences. A modified list of key competences has been produced as a reference for the degree profile; thus:

1. Knowledge of, and ability to, interpret and apply the general principles of law and the legal system.
2. Knowledge of, and ability to, interpret and apply legal texts and principles of the national and international legal system in specific cases.

For the purposes of key competences 1 and 2, "knowledge" means the outcome of the assimilation of information, facts, principles, theories and practices related

- 3a. Capacity to contribute to the creation of new legal solutions and institutions in general (simple cases).
- 3b. Capacity to contribute to the creation of new legal solutions and institutions in particular (advanced) cases.
4. Maintain continuous education.
 - 5a. Ability to make logical decisions.
 - 5b. Ability to take appropriate legal action.
6. Capacity to work in a legal or an interdisciplinary team and autonomously.
 - 7a. Basic legal reasoning and analysis.
 - 7b. argumentation in advanced cases.
8. Capacity to apply scientific research criteria and use electronic resources in the course of conducting a professional activity.
 - 9a. Capacity for good written and oral communication.
 - 9aa. Capacity for good written and oral professional communication.
 - 9b. ability to use a second language.
10. Capacity for critical analysis of the legal system in terms of philosophical, economic, social, political and other phenomena.
11. Organizational skills, especially time management.
12. Commitment to human rights, democratic governance and the rule of law.
13. Awareness of the ethical dimension of the legal professions and of the social responsibility of law graduates, and acting accordingly.

14. Capacity to act faithfully, transparently and with a sense of dedication in defending the interests of persons represented and all situations in which the law graduate is involved.

Key competences from 3 to 14 *comprise skills. They involve applying and using knowledge.*

These competences are to be realized through teaching relevant courses.

3. Courses

The Law SAG has identified the core subject areas of legal knowledge. In doing so, the Law SAG has drawn on the existing law programmes of Partner Universities. The common core subject areas are thus:

- Civil law
- Commercial law
- Constitutional law
- Administrative law
- Criminal law
- Civil procedure, including evidence and execution
- Criminal procedure
- Labour law
- Public international law
- Private international law
- Family law

In addition to the above areas of legal knowledge, the achievement of the key competences requires 'supportive offerings' to be included in the degree profile. Such offerings include:

- A second language
- Legal method
- Legal exercises
- Comparative law
- History of law
- Philosophy of law
- Introduction to Islamic Fiqh

- Foundations of Fiqh (rules of interpretation)

4. Effective Learning Outcomes

Learning outcomes can be defined as statements of what a learner knows, understands and is able to do upon completion of a learning process. An effective learning outcome should be precise, practical, and assessable; it is the proof that a student is able to use and apply knowledge in practical situations.

To write effective learning outcomes, the Law SAG has:

- organised the courses per year level;
- associated each course with the appropriate competences (or level of competence);
- drafted learning outcomes that are capable of measuring the competences associated with each course.

With the courses contained in the degree profile, the programme can be implemented in the span of four academic years (eight semesters). Cairo University has been chosen to carry out experimental implementation of the degree profile, wholly or in part, during the life of the T-Meda Project.

The result of this exercise has been the following plan of study, comprising courses with competences and effective learning outcomes associated with each. The courses have been classified at the academic year level. However, the plan of study sets guidelines for the line of progression of learning, which can be modified by the implementing university pursuant to its own regulations and academic system.

Degree Profile for a Bachelor's Programme in Law		
Academic Year 1 / 1 st Semester		
Course	Competences (per serial numbers in the list of key competences)	Learning Outcomes
Introduction to Law	1	<ul style="list-style-type: none"> - To be able to identify the sources and various branches of law. - To be able to explain the general theory of right.

	3a	- To be able to classify legal relationships and determine the applicable law.
	6	- To be able to debate legal issues and solve basic problems through team work.
	12	- To be able to demonstrate the importance of the rule of law through presenting a specific case or issue.
Political Systems and Constitutional Principles	1	- To be able to recognize different political systems. - To be able to identify general principles of constitutional law in a comparative approach.
	10	To be able to investigate and report in writing the political factors that affect constitutions.
Public International Law	1	To be able to state the sources and legal persons of international law.
	2	To be able to compare similarities and differences between international law and the domestic legal system.
	9b	To be able to read relevant materials in a foreign language.
	10	To be able to describe in writing how international law has transformed and developed in the context of international political and economic developments.
	12	To be able to illustrate the role of international law through settlement of disputes and human rights cases.
Introduction to Commercial Law	1	- To be able to identify the sources of commercial law and their hierarchy. - To be able to distinguish the different types of commercial acts and contracts. - To be able to list the necessary requirements to acquire the merchant's character.
	3a	To be able to produce a structure of a transaction involving the disposition of a commercial enterprise (a commercial shop/ sale of business as a going concern).
Introduction to Economics	1	To be able to summarize the basic theories in economies.
	6	To be able to collaborate in groups to explain contemporary economic policies.
	10	To be able to analyse the economic impact of certain legislative policies.

Academic Year 1 / 2 nd Semester		
Criminal Law (General Theory)	1	<ul style="list-style-type: none"> - To be able to memorize the principles and rules of criminal law. - To be able to explain the elements of crime. - To be able to explain different types of punishment.
	3a	To be able to deduce circumstances giving rise to criminal liability in a certain set of facts.
	7a	To be able to analyse factual situations and discover different forms of criminal complicity.
Introduction to Islamic Law	1	<ul style="list-style-type: none"> - To be able to state the sources of Islamic law and their hierarchy. - To be able to recognize the development of different schools of jurisprudence within Islamic law. - To be able to explain selected maxims of Islamic law and use them to explain particular rulings.
Administrative Law I	1	<ul style="list-style-type: none"> - To be able to identify the sources and various branches of administrative law. - To be able to examine the general theory of administrative law. - To be able to recognize different forms of distribution of administrative powers (centralisation, decentralization, deconcentration).
	3a	To be able to solve basic problems involving administrative law.
	6	To be able to collaborate and develop a hierarchical system of decision making within a group.
Public Finance	1	<ul style="list-style-type: none"> - To be able to describe the constitutional framework for public revenues and expenditure, and public debt. - To be able to examine the interaction between the executive authority and the parliament in passing the general budget. - To be able to identify the legal means and entities concerned with monitoring the implementation of the general budget.
	5a	To be able to distinguish different heads of public revenues and identify the appropriate head relating to a particular situation.
	12	To be able to demonstrate the significance of transparency and parliamentary control over the

		setting and implementation of the general budget as aspects of ensuring the rule of law in a democratic society.
The Sources of Obligations	1	To be able to identify the sources of obligations and the elements of each.
	3a	To be able to solve basic problems.
	3b	To be able to appraise controversial points of law and formulate an opinion thereupon.
	7a	To be able to analyse factual situations to identify whether an obligation exists and on which legal basis, and write a reasoned opinion.
Legal Research Method	4	To be able to use legal resources to obtain legal information.
	6	To be able to produce an essay through team work.
	8	To be able to utilize and retrieve legal information through electronic legal resources, like legal databases.
	9a	To be able to explain research conclusions and to summarize legal materials in writing in a scholarly manner.
	11	To be able to prepare assignments and submit them within deadlines.
Academic Year 2/ 1st Semester		
Rules of Obligations	2	To be able to explain the legal concepts, principles, and rules relating to the discharge of obligations and the legal remedies available for the obligor.
	3b	To be able to solve advanced problems involving complex issues.
	6	To be able to collaborate in groups to review case law on a particular aspect of the rules of execution and present conclusions as to whether the relevant legal solutions protect the creditor, are harsh on the debtor, or strike a fair balance between the conflicting interests of creditors and debtors.
Administrative Law II (Administrative Contracts)	2	<ul style="list-style-type: none"> - To be able to explain Administrative Contracts, distinguish them from other types of contracts. - To be able to characterize the type of contract suitable for running a public utility.
	3b	To be able to recommend the suitable action to be taken by the public administration in response to a particular conduct of the contractor.

History of Law	1	To be able to describe the historical development of law.
	9a	To be able to investigate the differences in ancient legal systems and to express them in writing.
	10	To be able to identify the political, social, and economic phenomena that influenced the development of the law and to describe examples in writing.
Constitutional Law	2	To be able to explain the principles and rules of the Constitution and the organization of State authorities.
	3b	To be able to appraise a real or hypothetical constitutional case and construct alternative solutions.
	6	To be able to debate constitutional issues in groups and collaborate in presenting conclusions.
	12	<ul style="list-style-type: none"> – To be able to recognize the public freedoms and liberties enshrined in the constitution. – To be able to demonstrate the importance of constitutional protection of human rights and democratic governance in society through describing the historical development of these rights in the country.
International Organizations	1	<ul style="list-style-type: none"> - To be able to recognize and describe different types of international organisations and their roles. - To be able to contrast various organizations in terms of structure and mandate.
	8	<ul style="list-style-type: none"> - To be able to utilize computer skills or IT and communication techniques as tools for accessing primary documents of IO and to support knowledge.
Commercial Papers	2	<ul style="list-style-type: none"> - To be able to identify different negotiable instruments. - To be able to examine the relationships and pertinent liabilities arising from negotiable instruments.
	6	To be able to solve problems relating to claims arising from negotiable instruments as a team and present the proposed solution.
	11	To be able to draw a framework for monitoring and conserving the rights of a client as a holder of a commercial paper.
Academic Year 2 / 2nd Semester		

Criminology and Penology	5a	To be able to examine different theories in criminology and penology and assess the points of strength and weakness in each.
	10	<ul style="list-style-type: none"> - To be able to argue the underlying interests and values that may justify criminalizing a certain course of conduct. - To be able to recognize the social and economic factors that contribute to criminal conduct. - To be able to evaluate the penal policies and the criticism of each type of punishment based on the social, economic and ethical aspects of each.
Labour and Social Security Law	2	- To be able to explain the principles and rules of labour law relating to the contract of employment.
	10	<ul style="list-style-type: none"> - To be able to point out the social, political, and economic policies affecting the labour law. - To be able to recognize the powers and factors that affect collect bargains and the social and economic ramifications of collective labour disputes.
Foundations of Fiqh (Rules of Interpretation)	2	To be able to demonstrate the rules of interpretation of legal texts and their underlying justification articulated by the schools of Islamic jurisprudence.
	5a	<ul style="list-style-type: none"> - To be able to use the rules of interpretation in making legal arguments. - To be able to identify the logical justifications for particular linguistic or interpretive paradigms.
Philosophy of Law	1	To be able to identify different schools of legal philosophy.
	7a	To be able to analyse critically legal concepts.
	9a	To be able to examine and debate specific issues in legal philosophy.
	10	To be able to discuss legal institutions and to outline relevant philosophical argumentation in support of a particular point of view.
Civil Law (Named Contracts)	2	To be able to characterize particular contracts and explain applicable legal rules.
	3b	To be able to solve complex legal problems involving different aspects of a contractual legal relationship.
	7b	To be able to write legal arguments with or against the position of existing law in respect of

		certain issues.
Academic Year 3/ 1st Semester		
Company Law	2	To be able to distinguish different types of companies and their requirements of incorporation.
	3b	To be able to identify appropriate types of company for particular activities and to take necessary steps.
	13	To be able to defend corporate governance, its ethical dimension, and social responsibility.
Family Law	1	To be able to identify the general principles of family law.
	2	<ul style="list-style-type: none"> - To be able to analyse hypothetical situations involving marriage, divorce, and pertinent rights, and apply rules of family law to them to provide solutions. - To be able to solve problems relating to inheritance.
	10	To be able to examine the underlying factors for the existing plurality of family law for different communities within the state. And to explain the justifications for successive amendments.
Administrative Courts	2	<ul style="list-style-type: none"> - To be able to describe the organization of administrative courts and the scope of their jurisdiction. - To be able to recognize the development of different schools of jurisprudence within comparative law.
	5b	<ul style="list-style-type: none"> - To be able to identify the points of law falling within the ambit of the jurisdiction of administrative courts in a set of circumstances and to determine the appropriate action. - To be able to draft a statement of case for judicial review of administrative decisions.
	12	To be able to appraise a decision of the administrative court involving human rights and the principle of the rule of law.
Law of Civil Procedure	2	<ul style="list-style-type: none"> - To be able to explain the rules and principles of civil procedure, and the jurisdiction of relevant courts and authorities.

		- To be able to cite the relevant procedural legislation and case law.
	5b	To be able to solve problems involving identifying the appropriate legal procedure and reviewing critically a particular procedural approach (real or hypothetical).
	8	To be able to compile court decisions through electronic resources and explain the legal and logical elements in the findings and reasoning.
	13	To be able to defend aspects of the civil procedures from the ethical point of view.
	14	To be able to demonstrate understanding of conflict of interest in certain circumstances and determine the appropriate course of action from the point of view of professional responsibility.
Legal Terminology in a Foreign Language	8	To be able to conduct basic search on the internet using a second language.
	9b	To be able to use materials in a second language.
Academic Year 3/ 2nd Semester		
Criminal Law – Specific Crimes	2	To be able to explain the elements of specific crimes against persons or property.
	5a	To be able to infer criminal liability in certain circumstances based on legal reasoning and logical conclusions.
Law of Evidence	2	To be able to identify the means of proof in civil and commercial matters and the relevant substantive and procedural principles.
	5a	<ul style="list-style-type: none"> - To be able to solve basic problems regarding the admissibility of evidence. - To be able to show the logical rules relating to the assessment of presumptions.
Tax Law	2	<ul style="list-style-type: none"> - To be able to compare the rules that apply to the taxation of individuals and different types of entities. - To be able to identify the relevant tax authorities, their competences and powers.
	4	To be able to distinguish and search different legislative instruments and subordinate legislation issued and promulgated in different legal ways.
	5b, 7a	To be able to discern and clarify facts relevant for the taxation in a particular economic activity, legal form of business, and transactions; to determine the appropriate legal action

		accordingly.
	3b, 10	To be able to formulate a new taxation policy and anticipate its possible effects on business operations and taxpayers in general.
Banking Law	2	To be able to explain the framework of regulation of banking at the international, and local levels.
	3b	<ul style="list-style-type: none"> - To be able to criticize the theoretical basis of banking regulation. - To be able to analyze and apply banking law relating to banker-customer relations.
	4	To be able to carry out independent research in the fields of both banking regulation and banking law using both library-based and electronic resources.
Arbitration Law	2	<ul style="list-style-type: none"> - To be able to explain the concept and principles of arbitration as a method of dispute resolution. - To be able to identify the main legal instruments regulating arbitration on national and international level.
	3b	To be able to choose between institutional arbitration and ad hoc arbitration, and to draft suitable arbitration clauses.
	9aa	To be able to write legal petitions necessary in the course of the arbitral procedure.
	14	<ul style="list-style-type: none"> - To be able to conclude the basic ethical obligations of an arbitrator. - To be able to argue, with ethical and legal reasoning, cases involving challenges to arbitrators on grounds of lack of independence or partiality.
Academic Year 4 / 1st Semester		
Constitutional Courts	2	<ul style="list-style-type: none"> - To be able to describe the jurisdiction of the constitutional court. - To be able to compare the interpretive function of the constitutional court with its power to verify the constitutionality of the actions of the Executive and Parliament.
	9aa	To be able to annotate a decision of the constitutional court.
Private International Law	2	<ul style="list-style-type: none"> - To be able to distinguish the methodologies of determining the applicable law in a private international relationship. - To be able to explain the grounds of court jurisdiction in international litigation.

	3b	To be able to solve complex problems involving problematic characterization of legal relationships and institutions and relevance of national and international rules.
	7b	To be able to argue controversial issues in private international law and public policy.
Law of Criminal Procedure	2	<ul style="list-style-type: none"> - To be able to identify the rules and principles of criminal procedure, and the jurisdiction of relevant courts and authorities. - To be able to cite the relevant procedural legislation and case law.
	5b	To be able to solve problems involving identifying the appropriate legal criminal procedure and reviewing critically a particular procedural approach (real or hypothetical).
	8	To be able to collect court decisions through electronic resources and explain the legal and logical elements in the findings and reasoning.
	13	<ul style="list-style-type: none"> - To be able to defend aspects of the criminal procedures from the ethical point of view. - To be able to discern the aspects of professional and social responsibility in criminal procedures.
	14	To be able to demonstrate appreciation of the professional responsibility in representing the interests of the accused or the victim, through presenting a case study from the case law.
Forced Execution	2	<ul style="list-style-type: none"> - To be able to explain the legal rules of enforcement of obligations, seizure and liquidation of debtor's property.
	5b	To be able to identify the appropriate action regarding the protection of the interests of the creditor, the procedures of execution and challenging the decisions of the judge of execution.
Property Law	1	To be able to state the definition and scope of Property Law.
	2	To be able to explain the classification of estates.
	3a	To be able to solve problems relating to property law.
	3b	To be able to recognize common problems relating to property and real rights and propose possible legal reform.
Comparative Law	1	<ul style="list-style-type: none"> - To be able to recognize different legal systems. - To be able to compare and contrast key

		elements of the national legal system and a foreign one in respect of a given topic.
	7a	To be able to analyse, interpret, and present differences between different legal systems.
	9b	To be able to use materials in a second language.
Academic Year 4/ 2nd Semester		
Legal Method and Exercises	3b	To be able to read and analyse case law and academic writings effectively.
	6	To be able to fulfill individually and as a team assignments of searching and interpreting legal rules as well as their application.
	9aa	To be able to write professional legal memos, pleadings or other forms of legal texts, using legal language and terminology, including citations accurately.
	11	To be able to prioritize a few tasks in groups and individually over the same period of time and submit them on time.
	14	<ul style="list-style-type: none"> - To be able to recognize the principles of professional liability. - To be able to identify situations of conflict of interest.
Air and Maritime Law	2	<ul style="list-style-type: none"> - To be able to explain the relationships between legal regimes governing international business transactions relating to the movement of vessels, goods and persons in maritime and space mediums. - To be able to critically describe the harmonization of private international regulation of maritime law, air law and space law through the adoption of international treaties and conventions. - To be able to explain the principles of liability for maritime and space activities.
	6	To be able to reflect through team work upon complex ideas and arguments and relate them to issues and circumstances in the contemporary global political economy
Intellectual Property Rights	2	<ul style="list-style-type: none"> - To be able to define different types of intellectual property rights. - To be able to explain principles and rules governing each type of intellectual property rights.
	7b	- To be able to make arguments with or against the legislative policy relating to the scope of protection and the procedures of

		<p>enforcement;</p> <ul style="list-style-type: none"> - To be able to think critically about the economic and ethical aspects of the legal protection and infringements of certain intellectual property rights.
Bankruptcy	2	To be able to define bankruptcy and to explain its rules and consequences for individual merchants, commercial companies, and third parties, e.g., employees and creditors.
	3b	To be able to recognize areas of problematic balance between the bankrupt and the creditors and to propose alternative solutions and policies.

REFERENCE POINTS FOR THE DESIGN AND DELIVERY OF DEGREE PROGRAMMES IN NURSING

Content:

- Introduction
- Countries involved in SAG
- Presentation of the members/ Universities-
- Process followed at the beginning to define a proposal for generic competencies from SAG perspective
- Generic Competencies
- Specific Competencies
- Institutional / national / subregional / international references with SGA that has been taken into account to achieve the list of specific competencies
- Consultation and reflection
- Meta- Profile of Nursing SAG
- Identification of the Core Components of the Meta- Profile

Introduction

The Tuning Middle East and North Africa (T-MEDA) project aims to bring about more clarity and understanding regarding university qualifications, facilitating comparability and compatibility between different universities in the Middle East and North Africa .This is to be achieved by forming of subject area groups (Architectural Engineering, Law, Nursing and Tourism) from different partner universities in the MENA region, these groups are in charge of defining general and specific competences that will be the focus of a survey, which will serve to consult with the 4 targeted categories of stakeholders (students, employers, graduates and faculty members). Based on the results of this survey, profiles of subject areas will be designated and new curricula will be developed, the result will be implementation and assessment of new programs that will take place in the partner universities, this will be

followed by continuous improvement and enhancement for them to assure quality of educational outcomes. All these stages will take place in general meetings conducted by the project, where all partner universities will have the opportunity to meet and work on planned activities. (Source: **Tuning Middle East and North Africa- First General Meeting Book**; distributed during the 1st General Meeting May 2nd to 6th 2014)

1- Countries involved in the SGA

- Egypt
- Lebanon
- Palestine
- Jordan
- Tunisia
- Algeria
- Libya
- Malta

2. Presentation of the members/ Universities

Members	Universities	Country
Abeer Eswi	Cairo(CU)	Egypt
Somaya Abou-abdou	Suez Canal (SCU)	Egypt
Ursula Rizk	University of Balamand (UOB)	Lebanon
YousefAljeesh	Islamic University of Gaza (IUG)	Palestine
Sami Basha	Palestine Ahliyah University College / Bethlehem (PAUC)	Palestine
Nijmeh Al – Atiyyat	Hashemite University (HU)	Jordan
BoubakerZarrad	University of Monastir (UM)	Tunisia
Arwa Oweis	Jordan University of Science and Technology(JUS)	Jordon
Sabah Lamloom	Omar Al-Mukhtar University OMU	Libya
Roberta Sammut	University of Malta UOM	Malta
Mary Navarro	University of Malta UOM	Malta

Identification of Universities included

Cairo University

It was established on 21 December 1908, it is the second oldest institution of higher education in Egypt after Al Azhar University. It counts three Nobel Laureates among its graduates and is one of the 50 largest institutions of higher education in the world by enrollment. Currently it has 26 faculties/institutions in different scientific disciplines, with total volume of about 250000 students

Cairo University has successfully been undertaking its mission of delivering education, research and cultural duties over the years. It is considered as the mother university among other younger universities in Egypt. Cairo University is also offering its education and research facilities to Arab and foreign students and scientists and has become well known worldwide. Cairo University is a comprehensive institution of higher learning located in Giza, Egypt. CU is committed to preparing students for the challenges of rapidly changing workplace through interactive learning and information technologies.

Mission statement: Enhance university capabilities and potentialities through developing its human and financial resources, as well as improve the academic abilities of its staff members and their assistants, in order to prepare them for the age of science and technological revolution. In this respect, the university has adapted unconventional methods to develop the system of academic research in order to meet the needs of society and research and to encourage its scholars and researchers.

Cairo University which is usually ranked in the top universities in Egypt is also ranked as one of the top universities in Africa. In QS ranking 2014, Cairo University was ranked the 2nd in Egypt, it was rated the 7th across Africa, and it was rated 551-600 worldwide. In the ARWU 2014 ranking the university was ranked 1st in Egypt and it was the only Egyptian university in the ranking. It was rated 401-500 worldwide.

Suez Canal University

The history of Suez Canal University dates back to 1976 when the university was established by the presidential decree no. 93 for 1976. Study began in 1977 in six faculties; namely, the faculty of science, the faculty of agriculture, the faculty of commerce, the faculty of engineering and technology (in Port Said) and the faculty of education (in Suez). In the 1980s and 1990s, steady expansion in the university has been going on with a new faculty opening its doors almost every year. Today, there are 49588 students registered at the university studying in more than twenty faculties located in Ismailia and El-Arish after separation of two universities (Port Said, and Suez).

Faculties included:

(Faculty of Medicine, Faculty of Sciences, Faculty of Engineering, Faculty of Arts and Social Sciences, Faculty of Nursing, Faculty of Tourism and Hotel Management, Faculty of Pharmacy, Faculty of Dentistry,

Faculty of Agricultural Sciences, Faculty of Commerce, Faculty of Computing and Information, Faculty of Education.....etc

University Vision:

Suez Canal University is looking forward to occupy a prominent place among higher education institutions based on its contribution to university education development and its interaction with its community through pioneering research associated with its community.

University Mission:

We are university heading for its community aims to provide opportunities to its student for learning and education which capable of competition and provide work opportunities in its wide field at globalization era responding its community needs and eager to develop values within it without compromised to abandon our identity

University of Balamand (UOB)

The University of Balamand is a non-profit and independent institution of higher education. It was founded in 1988 by Patriarch Ignatius IV, Patriarch of the Antiochian Orthodox Christian Church. Recognizing the noble values of tolerance, co-existence and mutual respect, Balamand welcomes students and faculty from all over the world. We prepare our students to think creatively and to interact constructively so as to be able to lead by example.

The commitment of UOB to Lebanon and the region is to provide Service Education: Education through Doing (SEED). This program teaches students the importance of team work, the necessity of having effective communication skills, various conflict resolution techniques and the principle of citizenship. The SEED program serves the University's mission by preparing members of the local and regional communities to meet tomorrow's challenges.

More than 5,000 students currently attend the University of Balamand. While the majority is from Lebanon, the student body is quite cosmopolitan, with 36 nationalities represented throughout the various campuses. The faculty to student ratio is 11:1.

Faculties:

- Lebanese Academy of Fine Arts (English and French)
- Saint John of Damascus Institute of Theology (Arabic, English and Spanish)
- Faculty of Arts and Social Sciences (Arabic, English and French)

- Faculty of Business and Management (English)
- School of Tourism and Hotel Management (English)
- Faculty of Sciences (English)
- Faculty of Engineering (English)
- Faculty of Health Sciences (English)
- Saint George's Postgraduate Medical Education (English)
- Faculty of Medicine & Medical Sciences (English)
- Issam M. Fares Institute of Technology (English and French)
- Faculty of Library and Information Studies(English)

Centers & Institutes:

- Christian-Muslim Studies
- Engineering and Environmental Studies
- Economics and Capital Markets Research Center
- Geographical Information Systems Center
- Institute of the Environment
- Institute of History, Archaeology, and Near Eastern Heritage

Undergraduate Degree Programs:

The University of Balamand offers over 70 academic undergraduate programs

Graduate Programs:

The graduate school offers master's degrees in 55 disciplines.

Campuses:

- The main campus is located in Al-Kurah, north of Lebanon, overlooking the Mediterranean and the city of Tripoli. It occupies 454,000 square meters of a beautiful hillside covered with olive and oak trees. The plateau is dominated by the historic 12th century monastery of Balamand.
- The Faculty of Health Sciences (FHS) was founded in 1995 with the aim of contributing to the development of the health sector in Lebanon and the region. It was established in Ashrafieh, Beirut, facing Saint George Hospital.

- The Lebanese Academy of Fine Arts is located in Sin El-Fil, Beirut. Courses there are taught in French, in contrast to other programs where English is the language of instruction.
- The University of Balamand and the Issam Fares Foundation laid the cornerstone on 12/20/2008 of the Issam Fares Institute of Technology in Beino, Akkar.
- The Souk El-Gharb Campus is a picturesque mountaintop location, nestled among the peaks of Mount Lebanon. The beautiful surroundings offer the perfect atmosphere for learning. It is just 20 minutes away from Beirut. It is easily accessed from Zahle, Aley, Bhamdoun and Saida. The University of Balamand Souk El-Gharb leading programs are Arts and Social Sciences, Business and Management, Engineering, Health Sciences and Sciences.

Palestine Ahliya University College (PAUC) Bethlehem – Palestine

- Palestine Ahliya University College (PAUC) is a higher education institution. PAUC was established in 2006 as a culmination of a joint venture between selective academicians and investors, who consider investing in higher education not only a fruitful service to Palestine but also a project for social development and maintenance of national capital within the country. PAUC directs its academic services towards Palestinians and other nationals with qualifications prescribed by the college. PAUC works hard to secure quality education for students through qualified academicians and high quality education programs corresponding with progress and development of education worldwide, it also works towards securing quality education requirement with a highly qualified administration.
- **College location & facilities:**
- PAUC is located at the top of Mountain Dhaher, one of the most captivating hills in Bethlehem

Mission:

- Our mission stems from our commitment to establish a university which is a resource for civilized ideas and thoughts, advanced science and research. Moreover, it also aims to achieve the mission of strong a higher education by reflecting the

expectations and aspirations of the Palestinian people for a better life for their families. As a university, PAUC insists on being an active member in the development of the Palestinian community, taking advantage of the rich resources of its people represented by the intellectuals, heritage, sanctities and values, and its economy which is based on knowledge production, dissemination, marketing and distributing of knowledge. Furthermore, our general mission is to meet the educational and cultural needs of the Palestinian society, by providing quality programs and services that complement the mission of the Palestinian institutions of higher education and to be the core for Palestine Ahliya University.

The Academic departments:

- Department of Medical Sciences / Department of Administrative and finance Sciences / Department of Information Technology / Department of Law / Department of Arts and sciences.

The Islamic University of Gaza (IUG)

It is an independent academic institution supervised by the Ministry of Higher Education. It is a member of four associations: Association of Arab Universities, Federation of the Universities of the Islamic World , Community of Mediterranean Universities, and International Association of Universities. In addition, IUG works closely with numerous universities around the world .

- IUG provides for its students an academic environment that adheres to Islamic principles as well as Palestinian traditions and customs. It also provides all available resources, including the most up-to-date technology in service of the education process.

University Vision:

- "A beacon of knowledge, culture and human services that seeks to create a comprehensive social revival.

Mission

IUG is an academic institution that strives to raise the educational, cultural and civilization levels in the Palestinian society, to keep up with current trends in higher education and technology advancements, to encourage scientific research, and to contribute in building future generations and developing the society in a framework of Islamic values ".

Goals

- To raise the levels of educational programs based on quality standards
- To develop, support and invest in scientific research in order to achieve continual development
- To strengthen the university's role in serving and developing the society.
- To regulate and raise the efficiency of technical and administrative institutional performance .
- To improve the university environment and the level of services presented to students and staff .
- To reinforce partnership and cooperative relationships with local, regional and international organizations.

Academic Programs and Curricula:

- IUG keeps up with the global civilization, humanistic contribution and scientific and technological achievements; therefore, it constantly strives to modernize its curriculums to ensure that they are up-to-date with the scientific advancements in all fields of knowledge. IUG adopts a culture that calls for creativity, innovation and development .

The Hashemite University

Establishment

The Royal Decree to establish the Hashemite University was issued on 19th June 1991. Teaching at the university started on 16th September 1995 on a total area of 8519 acres.

Vision

It is oriented toward achieving an academic pioneering position and excellence in university teaching, scientific research, at both the national and regional levels, to serve

society through its educational functions, and to participate in the advancement of knowledge.

Mission

The Hashemite University as a youthful and prominent higher education institution is committed to actively participate in achieving the goals of the comprehensive national development through preparing loyal men and women who are not only technically competent in their professional fields, but also life-long learners who have a breadth vision, loyalty to their nation, and a sense of civic and moral responsibility and a devotion to the fundamental values of human life.

Location

The Hashemite University is located in the vicinity of Zarqa on a strategic site parallel to the international highway that links Amman with Mafraq, at the crossroad that connects Saudi Arabia, Syria, and Iraq.

Study Systems

The Hashemite University applies the credit hour system. This system provides students with the needed amount of flexibility and freedom in choosing the courses that satisfy their preferences and their academic, cultural and social aspirations. It also intensifies the opportunities of students from different faculties and institutes to interact and communicate with each other effectively.

Future Outlooks

First: Within the area of the national strategy for higher education:

- To realize the royal vision related to higher education, the university is heading forward in implementing its strategy and plans for the coming five year in order to guarantee the quality of the learning outcomes that ensure its competitive potentials.

Second:

- Building in campus a dormitory for girls .
- Implementing the housing project for the university employees.
- Implementing the investment agreement with the Free Zones corporation on the university land.

University of Monastir (UM)

The University of Monastir was founded in 2004 and it comprises currently two sites located in two regions Monastir and Mahdia . As a multidisciplinary university, UM offers a wide range of courses at undergraduate and postgraduate's level:

2049 lecturers, 974 administrative and around 28189 students (fundamental sciences (3935), engineering (4831), computing sciences (3688), medical, paramedical and pharmaceutical science (6542), biological science and biotechnology (2245), economical and management science (2883), languish and humanity (2370) art and design (1695)).

About 1% of the total student population is foreign.

The university of Monastir has taken part in numerous and successful transnational partnerships and projects within and outside of North Africa (177 Bilateral projects, and 10 Network project, 98 universities conventions and 2 Co-diploma convention).

The University with accredited research structures (22 Laboratories, 30 unities and 4 doctoral schools) and with more than 1016 (2011/2012) involved in doctorates offers to the region the third pole of research in Tunisia.

The international relations office has a good experience in managing programs of exchanges within bilateral agreements. This office takes care of the management of the international agreements with universities and organizations and contracts dealing with scientific collaboration, projects of development and exchanges of students and professors

This openness to the international dimension of our university is illustrated by its cooperation policy regarding education and research and by its significant effort in the implementation of mobility projects for students, academic staff and researchers.

Jordan University of Science and Technology (JUST)

Is a comprehensive, state-supported university located on the outskirts of Irbid, in northern Jordan, 70km north Amman, the capital city of Jordan. JUST was established in 1986 as an autonomous national institute of higher education with the main objective of producing outstanding professionals in specializations that match the needs of Jordan and the region. Since its establishment, JUST has been at the forefront of higher learning in the Arab World. It also maintains a high reputation among the Middle Eastern universities due to its faculty and administrative staff, multi-disciplinary educational system and broad diversity of students. The university was described as the best scientific institution in the Kingdom by King Abdullah II during his last visit, and it was ranked as the top research university in the

country, and amongst the top 50 universities in the Islamic World, according to a study carried out by the Statistical, Economic and Social Research and Training Center for Islamic Countries (SESRIC).

JUST is considered today as one of the region's leading universities in teaching and research. The number of students has increased significantly since the university's establishment. Today JUST has more than 800 full-time faculty members, with 20,000 undergraduate and 1800 graduate students, in contrast to 2,300 students in the 1986/1987 academic year. JUST comprises more than 5,000 international students of 60 nationalities, rendering it the most cultural-diverse university in Jordan.

The university provides a wide range of advanced degree programs at the undergraduate and graduate levels, many of them are not offered by any other Jordanian university. At the present time, the university comprises 12 faculties (Medicine, Engineering, Science & Arts, Pharmacy, Dentistry, Agriculture, Veterinary Medicine, Architecture, Information Technology, Applied Sciences, Nursing and Graduate Studies) and 55 departments offering 42 undergraduate programs and 95 postgraduate programs. These programs are constantly reviewed to improve their quality and to ensure that the students are always updated with the latest scientific skills and knowledge. All departments, faculties and service units are working together to ensure that the education we offer is both supportive and rewarding.

In 2011, Jordan University of Science & Technology (JUST) has begun to make its mark in the QS World University Rankings which, in return, placed JUST at 601+ according to the QS World University Ranking System. JUST has been ranked 301 according to the following indicators: academic reputation, reviews by recruiters who hire JUST graduates, faculty student ratio, citations of published research. In addition, the university was ranked 71 in recruiting top quality international students.

Internationalization is an essential element for the future development of Jordan University of Science and Technology. JUST is advancing its internationalization through the

implementation of advanced science and technology, modern communication technologies, and through interaction with communities around the world.

Omar Al-Mukhtar University

Is located in Bayda, started as Islamic university. It was founded in 1835 by the religious group Kzawip Senussi. It has grown to be a moderately religious institute to teach Principles of readings, and then to the University of Mohammed bin Ali al-Sanusi in 1961 or aspiring Bayda Islamic University. It educated students from all parts of Libya and the world, including Malta, Cyprus, Egypt, Malaysia, Indonesia, Sudan and Chad.

The Baksalha procedure room for thousands of students have been cancelled in the conduct of the impact of religious education, devoid causing a shortage of experienced preachers and speakers, and is now known as the University of Omar Al-Mukhtar. However, after the revolution, Fatih University has been cancelled as a beacon to the Islamic Movement of mother-to-Senussi, it's banned in Libya now, and make them belonging to the Faculty of Agriculture, the University of Garyounis is an independent and established university general in 1984. Follow the General People's Committee for Higher Education in the name of the campus now.

To change the course of education, the University of Mohammed bin Ali al-Sanusi Muslim changed its name to the University of Omar Al-Mukhtar. In the Revolution it was included in the University of Garyounis. During the period from 1975 to 1984, the College Implants affiliated with the University of Benghazi. And bear the name of the university Libyan hero Omar Mukhtar and then became independent in 1984.

In this university there are three branches : Bayda (the main campus) of the University, Al-Qubaa, Derna. Adopted in most disciplines of the Libyan, especially in recent years after the Libyan government offered scholarships for Libyan students to study in developed countries. Omar Al-Mukhtar University awarded academic degrees following: - BSc, and Master

Vision:

Omar Mukhtar University aspires to be the leader in providing outstanding education and contribute to the dissemination of knowledge and teaching them, development, production and rehabilitation of human resources, in line with the overall quality standards of local and global, and consistent with the objectives of sustainable development and the needs of the local community.

Mission:

The adoption of a comprehensive strategic plan for educational programs and scientific research, according to the comprehensive quality standards in education, to contribute to building human cadres, and provide production cybernetic meets the aspirations of the university, and serves the requirements of the labor market and local institutions and live up to compete at the regional and global levels.

Objectives:

1. Contribute to give knowledge and developed and produced , in various Arts and Sciences .
2. Preparation of cadres specialized and skilled and capable of serving the community and supporting the development requirements.
3. Provide a research environment to meet the distinct needs of the community.
4. Technology transfer and indigenization of the contribution in providing consulting, and scientific insights regarding local issues .
5. Keep pace with global developments in the affairs of education and scientific research , the development of educational programs and distinct colleges in various disciplines.
6. Support cooperation with universities and research centers at the local level , regional and international .

University of Algiers 1

University Algiers 1 Benyoucef Benkhedda results from the 2009 division of the University of Algiers, first university founded in Algeria in 1909.

It brings together the faculties from the 3 oldest schools or institutes:

- School of Medical Sciences, the first institution of higher education established on Algerian soil in 1833.
- Institute of Advanced Islamic Studies founded in 1845
- Law School in 1879

After the independence (1962), the University of Algiers was the main Algerian university. It covered the essential disciplines (exact sciences and technology, medical sciences, social sciences and humanities and letters). Despite the low number of Algerian teachers, it developed quickly. Its teaching and research structures have expanded rapidly. While pursuing its mission of education and research, the University also underwent changes in the plans of the organization, structuring, and orientation in pedagogy and research.

The University has gradually integrated into the international environment. Besides the many existing cooperation agreements between her and the other Algerian universities, the University has concluded and initiated in recent years of cooperation and partnership agreements with universities and international organizations.

Sciences of nursing have recently been integrated into the university as LMD system. Since the reform of the statutes and the establishment of the LMD, paramedical training institutes in Algeria are divided in;

- **National Institutes of Paramedical Superior Training** in partnership with Algerian Universities for License organized, in three years, in 4 Sectors

- * Nursing sector: Public Health Nursing
- * Reeducation sector - rehabilitation: physical therapists, occupational therapists
- * Medical technology sector: manipulator in medical imaging, laboratory technicians
- * Healthcare sector: medical secretaries, public health social service assistant.

For each of these sectors, specializations will be introduced later

- **National Institutes of Advanced Training of Midwives** in partnership with Algerian Universities to obtain Midwife Diploma over a period of 5 years.

2. Process followed at the beginning to define a proposal for generic competencies from SGA perspective

- Nursing is one of four disciplines included in Tuning Middle East and North Africa project. It was included because nursing is one of the professions that are required worldwide and it

should contain academic reference standards that fit for any graduate from various Middle East and North Africa countries.

- The group members from the area of nursing participated actively during year 2014 , 2014 in four different meeting:

During the first meeting of MEDA , the group members of each subject area negotiated and debated on the generic competencies that should be present for the graduate in the four subject area (low- architecture, nursing and tourism) these generic competencies should be included in the profile of the graduate in the previously mentioned 4 areas in the Middle East and North Africa countries . 38 generic competencies were developed then the 4 coordinators of each subject area met together and agreed upon 27 generic competencies that are considered crucial for the four subject areas.

Generic competencies defined as skills, and values as those which should be acquired by all graduates regardless of their discipline or field of study.

Generic competencies that were developed considered some aspects as the core such as personal attributes, ethical aspects, respect of cultural diversity, communication, critical thinking and leadership abilities.

Generic competencies developed were as follows:

- GC1. Ability to manage time effectively.
- GC2. Ability for oral and written communication to different audiences.
- GC3. Ability to maintain continuous education.
- GC4. Ability to have critical thinking, analysis, and synthesis.
- GC5. Ability to identify and resolve problems
- GC6. Ability to make logical decisions
- GC7. Ability to work in an interdisciplinary team
- GC8. Ability to lead effectively.
- GC9. Respect for diversity and multiculturalism.
- GC10. Ability to work autonomously.
- GC11. Ability to maintain quality of work
- GC12. Ability to act ethically with social responsibility.
- GC13. Ability to apply knowledge in practical situations.
- GC14. Ability to communicate in a second language.
- GC15. Skills in the use of information and communication technologies.
- GC16. Commitment to protect and preserve the environment.
- GC17. Commitment to human rights.
- GC18. Ability to be innovative and creative.
- GC19. Ability to be flexible and adapt to different situations.
- GC20 . Commitment to health and safety procedures
- GC 21. Being initiative.
- GC 22. Commitment to preserve cultural heritage and values
- GC 23. Having organizational skills.
- GC 24. Having a sense of dedication
- GC 25. Being self-motivated.
- GC 26. Ability to empower others.
- GC27. Being assertive

Results of the survey illustrated that correspondents had better achievement, rating and importance in relation to certain competencies such as manage time effectively, ability to have critical thinking, analysis, and synthesis, ability to identify and resolve problems, Ability

to maintain quality of work, while the lowest rating, achievement and importance was in relation to ability to be innovative and creative, having sense of dedication, ability to empower others and being assertive.

Aspects that were considered in the final list of generic competencies for MEDA

The quality of higher education as it should be judged in terms of graduate quality, rather than by other criteria such as the quality of the facilities offered by different institutions. It was argued further that, graduate quality should be judged by the extent to which these graduates demonstrate high levels of generic skills, attributes and value. Also, generic skills would enhance students' employability nationally, regionally and internationally.

3. Identification of specific competencies

Process followed to achieve the list of subject specific competencies

An intensive group work and discussion was carried out among representatives of each institution from different countries to determine the specific competencies for a nursing graduate. We generated a list of 60 specific competencies during the first general meeting, then the group members clustered and categorized them and reduced the number to become 38 competencies that are agreed upon by every member in the group. The subject specific competencies are as shown in the list

A. Competencies associated with the professional and attitudinal values

- Sc1. Provide holistic care
- Sc2. Deliver Individual centered care
- Sc3. Maintain Patient safety
- Sc4. Practice within the respective code of ethics and legal codes
- Sc5. Culturally sensitive and respect for dignity
- Sc5. Promote life and quality of life at all stages

B. Competencies associated with the skills and role of the nurse

- Sc1. Work under pressure
- Sc2. Use the Nursing process effectively
- Sc3. Meet individual, family and community needs
- Sc4. Work in an interdisciplinary team
- Sc5. Act as an educator
- Sc6. Act as an advocate of the individual, family, community as well as profession
- Sc7. Provide quality patient, family and community care
- Sc8. Provide life support measures across life span
- Sc9. Apply coping strategies
- Sc10. Ability to decide when to refer to other professionals
- Sc11. Perform basic nursing procedures
- Sc12. Apply universal precautions of Infection control measures

C. Competencies associated with communication

- Sc1. Maintain therapeutic nurse patient relationship
- Sc2. Communicate effectively with individuals, families and communities
- Sc3. Provide counseling
- Sc4. Document and report accurately and effectively
- S5. Mentor other nurses and student nurses
- Sc5. Manage challenging behavior of patient with special needs
- Sc6. Utilize new technology in communication

D. Knowledge and cognitive competencies

- Sc1. Apply knowledge and theories into practice

- Sc2. Apply critical thinking and clinical judgment
- Sc3. Utilize research findings and evidence based in practice
- Sc4. Utilize health informatics

E. Leadership and management competencies

- Sc1. Ability to work in a team either as a member or a leader
- Sc2. Ability to make and take decisions
- Sc3. Ability to delegate work
- Sc4. Accept constructive feedback and criticism
- Sc5. Ability to plan for future actions
- Sc5. Develop self and others
- Sc6. Risk, crisis and disaster management
- Sc7. Ability to appraise others objectively
- Sc8. Adhere to organizational policies and regulations

Institutional / national / subregional / international references with SGA that has been taken into account to achieve the list of specific competencies

The following aspects were considered to achieve the list of specific competencies :

- 1- The most important qualifications and competencies that should be present in all nursing graduates enrolled in higher education in any area of knowledge , attitude and skills more specifically , in Middle east and North Africa region
- 2- The specific competencies determined by other Tuning profile as Latin America and Europe
- 3- The requirements of higher education

4 – Consultation and reflection

Presentation and analysis of the results of generic competencies survey (in relation to SGA perspective)

As for Consultation, 761 respondents from 9 countries (Algeria, Egypt , Jordan , Lebanon, Libya , Syria, Tunisia and Palestine participated in the survey that was developed by the administrative personal in Tuning MEDA . It included academics, students, graduates and employers. They were asked about rating, importance, ranking and achievement of each generic competency. From 28 generic competencies that were developed by SGA , the highest rating , ranking and importance among the four categories was given to manage time effectively, communicate orally and in writing with different audiences , maintain continuous education, have critical thinking, analysis and synthesis and identify and resolve problems while the lowest rating , ranking and importance among the four categories was given to self – motivated , initiative , being assertive and sense of dedication and respect for diversity and multiculturalism , there is also a gap between rating and achievement in relation to manage time effectively , have critical thinking, analysis and synthesis , work autonomously and communicate orally and in writing with different audiences among the academics , students, employers and graduates .

GRADUATES

Ratings

#	Description	Importance	Achievement
10	Maintain quality of work	3,56	2,69
27	Self-motivated	3,54	2,69
20	Health and safety procedures	3,53	2,81
19	Human rights	3,52	2,85
11	Act ethically with social responsibility	3,49	2,72
5	Identify and resolve problems	3,46	2,65
1	Manage time effectively	3,46	2,73
28	Assertive	3,45	2,66
3	Maintain continuous education	3,43	2,84
12	Apply knowledge in practical situations	3,43	2,74
26	Initiative	3,43	2,64
22	Organizational skills	3,42	2,68
17	Search for information from a variety of sources	3,42	2,70
14	Be innovative and creative	3,40	2,61
4	Have critical thinking, analysis and synthesis	3,39	2,63
15	Be flexible and adapt to different situations.	3,37	2,61
6	Make logical decisions	3,37	2,60
8	Lead effectively	3,37	2,58
18	The protection and preservation of the environment	3,34	2,49
24	Respect for diversity and multiculturalism	3,34	2,70
2	Communicate orally and in writing with different audiences	3,33	2,59
21	The preservation of cultural heritage and values	3,32	2,63
23	Sense of dedication	3,31	2,60
25	Skills in the use of information and communication technologies	3,30	2,67
7	Work in an interdisciplinary team	3,27	2,65
9	Work autonomously	3,24	2,57
16	Empower others	3,22	2,39
13	Communicate in a second language	3,20	2,61

STUDENTS

Ratings

#	Description	Importance	Achievement
20	Health and safety procedures	3,56	3,05
11	Act ethically with social responsibility	3,54	2,97
19	Human rights	3,54	2,90
27	Self-motivated	3,53	2,90
10	Maintain quality of work	3,51	2,94
28	Assertive	3,50	2,90
5	Identify and resolve problems	3,45	2,75
12	Apply knowledge in practical situations	3,44	2,95
1	Manage time effectively	3,42	2,73
26	Initiative	3,39	2,88
15	Be flexible and adapt to different situations.	3,39	2,73
6	Make logical decisions	3,39	2,79
22	Organizational skills	3,37	2,72
7	Work in an interdisciplinary team	3,33	2,74
24	Respect for diversity and multiculturalism	3,33	2,83
25	Skills in the use of information and communication technologies	3,32	2,78
8	Lead effectively	3,30	2,67
2	Communicate orally and in writing with different audiences	3,30	2,67
4	Have critical thinking, analysis and synthesis	3,29	2,74
3	Maintain continuous education	3,29	2,68
18	The protection and preservation of the environment	3,28	2,69
17	Search for information from a variety of sources	3,26	2,74
21	The preservation of cultural heritage and values	3,24	2,72
23	Sense of dedication	3,23	2,72
13	Communicate in a second language	3,11	2,63
14	Be innovative and creative	3,10	2,60
9	Work autonomously	3,07	2,64
16	Empower others	3,07	2,52

EMPLOYERS

Ratings

#	Description	Importance	Achievement
10	Maintain quality of work	3,57	2,63
20	Health and safety procedures	3,53	2,72
11	Act ethically with social responsibility	3,49	2,69
1	Manage time effectively	3,49	2,48
19	Human rights	3,48	2,65
7	Work in an interdisciplinary team	3,46	2,57
5	Identify and resolve problems	3,43	2,53
3	Maintain continuous education	3,39	2,45
12	Apply knowledge in practical situations	3,37	2,62
18	The protection and preservation of the environment	3,33	2,46
15	Be flexible and adapt to different situations.	3,32	2,46
2	Communicate orally and in writing with different audiences	3,32	2,48
8	Lead effectively	3,31	2,44
17	Search for information from a variety a sources	3,30	2,56
6	Make logical decisions	3,29	2,42
24	Respect for diversity and multiculturalism	3,29	2,51
25	Skills in the use of information and communication technologies	3,26	2,51
27	Self-motivated	3,26	2,34
23	Sense of dedication	3,25	2,29
21	The preservation of cultural heritage and values	3,24	2,47
22	Organizational skills	3,23	2,51
26	Initiative	3,23	2,38
28	Assertive	3,21	2,40
14	Be innovative and creative	3,14	2,21
13	Communicate in a second language	3,13	2,60
4	Have critical thinking, analysis and synthesis	3,12	2,32
9	Work autonomously	3,05	2,39
16	Empower others	3,00	2,17

ACADEMICS

Ratings

#	Description	Importance	Achievement
12	Apply knowledge in practical situations	3,72	2,84
10	Maintain quality of work	3,70	2,89
11	Act ethically with social responsibility	3,68	2,90
19	Human rights	3,67	2,86
20	Health and safety procedures	3,64	2,88
7	Work in an interdisciplinary team	3,62	2,83
5	Identify and resolve problems	3,62	2,78
28	Assertive	3,58	2,69
2	Communicate orally and in writing with different audiences	3,55	2,61
3	Maintain continuous education	3,54	2,72
6	Make logical decisions	3,53	2,71
17	Search for information from a variety a sources	3,52	2,72
1	Manage time effectively	3,51	2,63
26	Initiative	3,48	2,69
4	Have critical thinking, analysis and synthesis	3,48	2,68
18	The protection and preservation of the environment	3,47	2,56
25	Skills in the use of information and communication technologies	3,46	2,80
21	The preservation of cultural heritage and values	3,44	2,66
24	Respect for diversity and multiculturalism	3,44	2,72
27	Self-motivated	3,42	2,55
22	Oganizational skills	3,35	2,61
15	Be flexible and adapt to different situations.	3,33	2,48
13	Communicate in a second language	3,32	2,65
23	Sense of dedication	3,32	2,60
8	Lead effectively	3,23	2,57
14	Be innovative and creative	3,18	2,52
9	Work autonomously	3,17	2,59
16	Empower others	3,15	2,41

CORRELATIONS AMONG GROUPS

IMPORTANCE

	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,7898	1,0000		
<i>Students</i>	0,7830	0,7573	1,0000	
<i>Graduates</i>	0,6100	0,6533	0,8358	1,0000

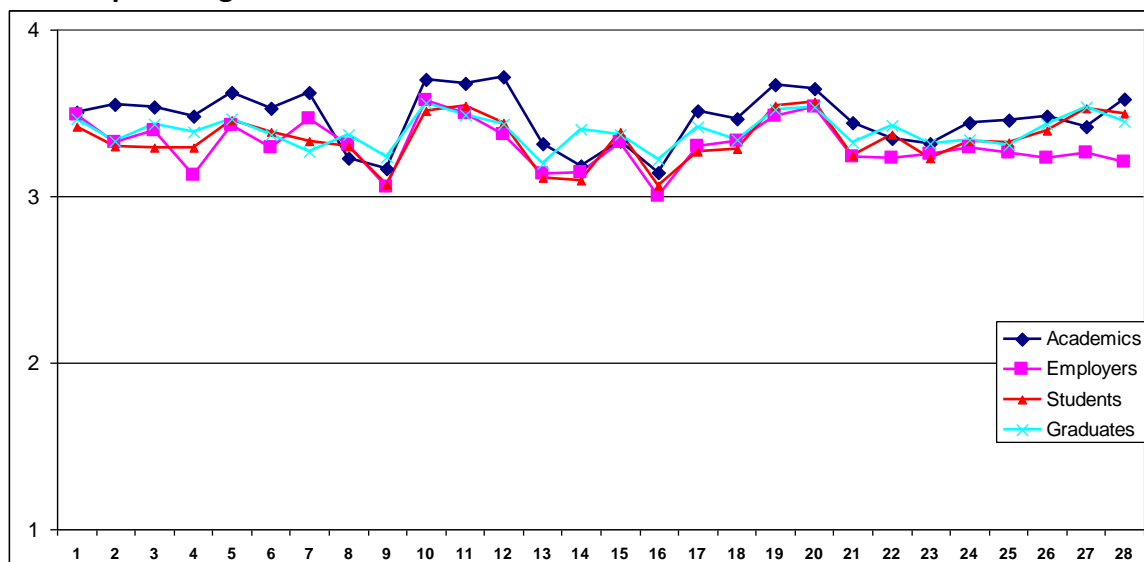
	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,7978	1,0000		
<i>Students</i>	0,7366	0,6116	1,0000	
<i>Graduates</i>	0,7020	0,6227	0,6640	1,0000

ACHIEVEMENT

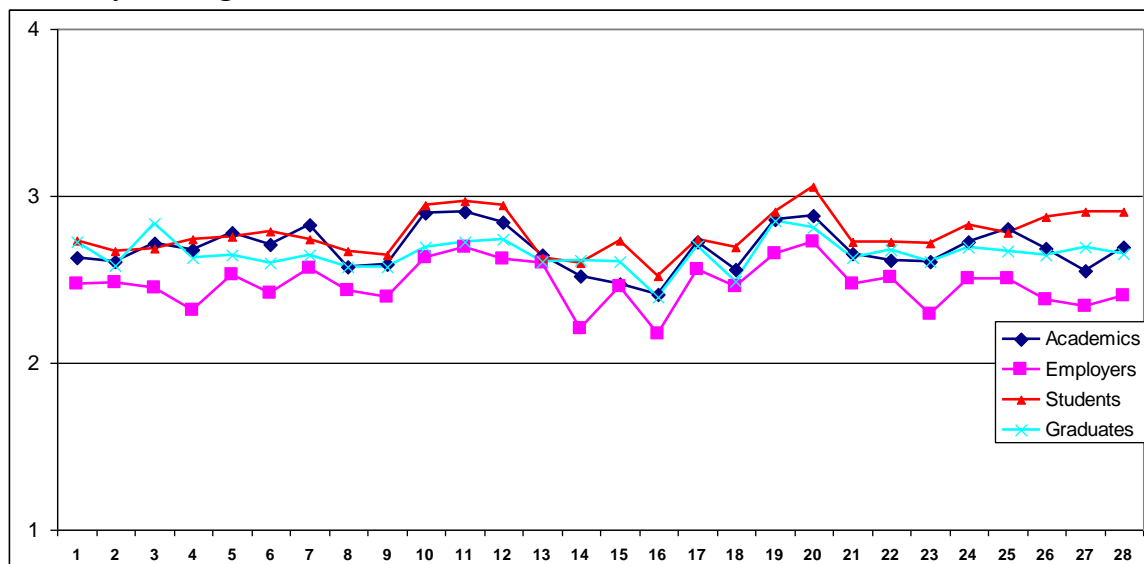
RANKING

	Academics	Employers	Students	Graduates
Academics	1,0000			
Employers	0,8725	1,0000		
Students	0,8309	0,8629	1,0000	
Graduates	0,9153	0,8420	0,8346	1,0000

All Groups Ratings of IMPORTANCE



All Groups Ratings of ACHIEVEMENT



Presentation and analysis of the results of subject specific competencies survey

As shown in the table below , 414 respondents from 9 countries ; Algeria, Egypt , Jordan , Lebanon, Libya , Syria, Tunisia and Palestine participated in the survey related to Nursing

SCA, the highest number of respondents was from Egypt (156). Validation and consistency by the four groups for the results of the survey guided the production of the Meta profile of nursing.

NUMBER OF RESPONDENTS: SPECIFIC COMPETENCES

	Academics	Employers	Students	Graduates	Total
ARCHITECTURE	137	112	190	123	562
LAW	101	82	166	105	454
NURSING	103	117	120	74	414
TOURISM	110	93	125	116	444
Total	451	404	601	418	1874

	ALGERIA	EGYPT	JORDAN	LEBANON	LIBYA	MOROCCO	SYRIA	TUNISIA	PALESTINA	Total
ARCHITECTURE	119	63	46	16	122	-	180	-	16	562
LAW	69	23	94	104	64	-	5	5	90	454
NURSING	-	156	3	22	69	-	1	77	86	414
TOURISM	-	14	145	223	5	16	-	41	-	444
Total	188	256	288	365	260	16	186	123	192	1874

Overview of the importance of the competencias

- There is a general consensus among most of the groups included in the survey on the importance of
 - patient safety
 - Promoting life and quality of life
 - Provide holistic care
 - Practice within the respective code of ethics and legal codes
 - Provide quality patient, family and community care

Table 1 illustrates the highest competencies as importance from the perspective of academics, students, employers and graduates

Academics	Students	employers	Graduates
SC3 Maintain patient safety	SC3 Maintain patient safety	SC3 Maintain patient safety	SC3 Maintain patient safety
SC13 Provide quality patient, family and community care	SC6 Promote life and quality of life at all stages	Sc1 Provide holistic care	SC4 Practice within the respective code of ethics and legal codes
SC6 Promote life and quality of life at all stages	Sc4 Practice within the respective code of ethics and legal codes	SC6 Promote life and quality of life at all stages	Provide holistic care

SC22 Document and report accurately and effectively	SC17 Perform basic nursing procedures	C4 Practice within the respective code of ethics and legal codes	SC6 Promote life and quality of life at all stages
SC4 Practice within the respective code of ethics and legal codes	SC36 Risk, crisis and disaster management	SC13 Provide quality patient, family and community care	C21 Provide counselling

Achievement

As for achievement the highest competencies from the perspective of all categories were ; Perform basic nursing procedure, Maintain patient safety, Practice within the respective codes of ethics and legal codes, Provide quality patient, family and community care and Apply universal precautions of infection control measures. There is congruency between achievement and importance among the academic , graduates and employer in relation to maintain patient safety , provide holistic care and meet individual , family and community needs while there is a gap between importance and achievement in relation to deliver individual centered care and risk, crisis and disaster management.

Table 2 illustrates the highest competencies in achievement from the perspective of academics, students, employers and graduates

Academics	Students	employers	Graduates
1. Perform basic nursing procedure	.1 Perform basic nursing procedure	.1 Maintain patient safety	Practice within the respective codes of ethics and legal codes
2. Practice within the respective codes of ethics and legal codes	. Deliver individual centered care	Perform basic nursing procedure	Provide holistic care
3. Maintain patient safety	3. Maintain patient safety	Promote life and quality of life at all stages.	Maintain patient safety
. Provide holistic care	Promote life and quality of life at all stages.	Provide holistic care	Perform basic nursing procedure
. Culture sensitive and respect of dignity	. Practice within the respective codes of ethics and legal codes	Apply universal precautions of infection control measures	Provide quality patient, family and community care

Table3 illustrates the lowest competencies in achievement from the perspective of academics, students, employers and graduates

Academics	Students	employers	Graduates
SC32Ability to delegate work	SC28Utilize research findings	SC37Ability to appraise others objectively	C35Develop self and others
SC29 Utilize health informatics	SC35 Develop self and others	SC34Ability to plan future actions	SC28Utilize research findings and evidence based
SC37 Ability to appraise others objectively	SC29 Utilize health informatics	SC33Accept constructive feedback and criticism	SC15 Applying coping strategies
SC24Manage challenging behaviors of patient with special needs	SC154 Applying coping strategies	SC32 Ability to delegate work	SC33 Accept constructive feedback and criticism
SC28 Utilize research findings.	SC37Ability to appraise others objectively	C16Ability to decide when to refer to other professionals	SC36Risk crises and disaster management

CORRELATIONS AMONG GROUPS IMPORTANCE

	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,7080	1,0000		
<i>Students</i>	0,7306	0,7093	1,0000	
<i>Graduates</i>	0,6880	0,6749	0,6186	1,0000

ACHIEVEMENT

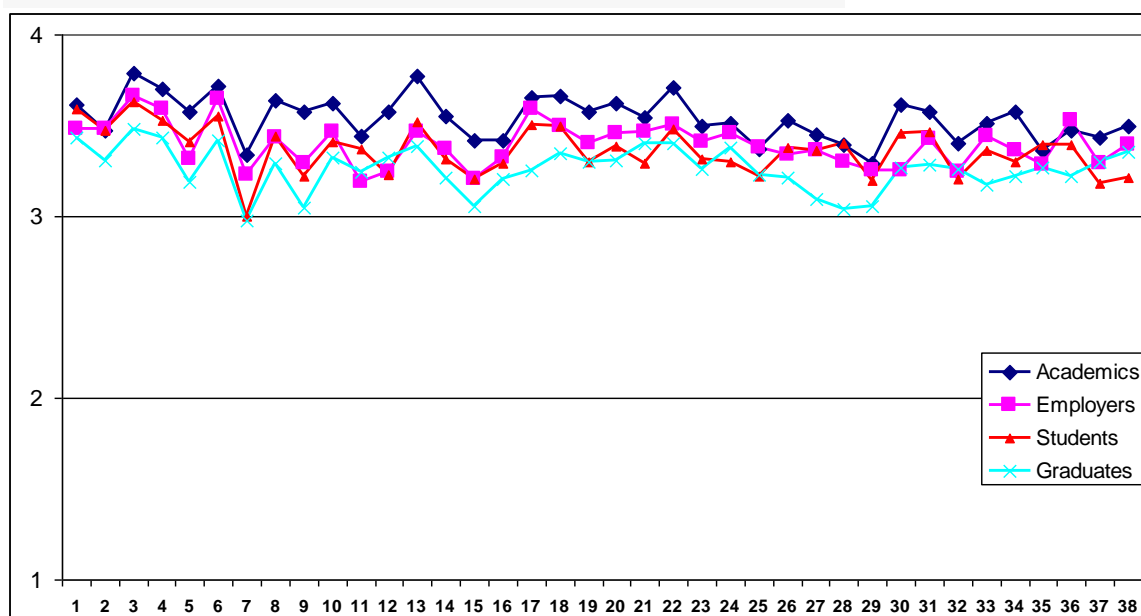
	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,8309	1,0000		
<i>Students</i>	0,7447	0,6272	1,0000	
<i>Graduates</i>	0,6906	0,7879	0,6463	1,0000

RANKING

	<i>Academics</i>	<i>Employers</i>	<i>Students</i>	<i>Graduates</i>
<i>Academics</i>	1,0000			
<i>Employers</i>	0,9792	1,0000		
<i>Students</i>	0,9278	0,9588	1,0000	
<i>Graduates</i>	0,9564	0,9811	0,9740	1,0000

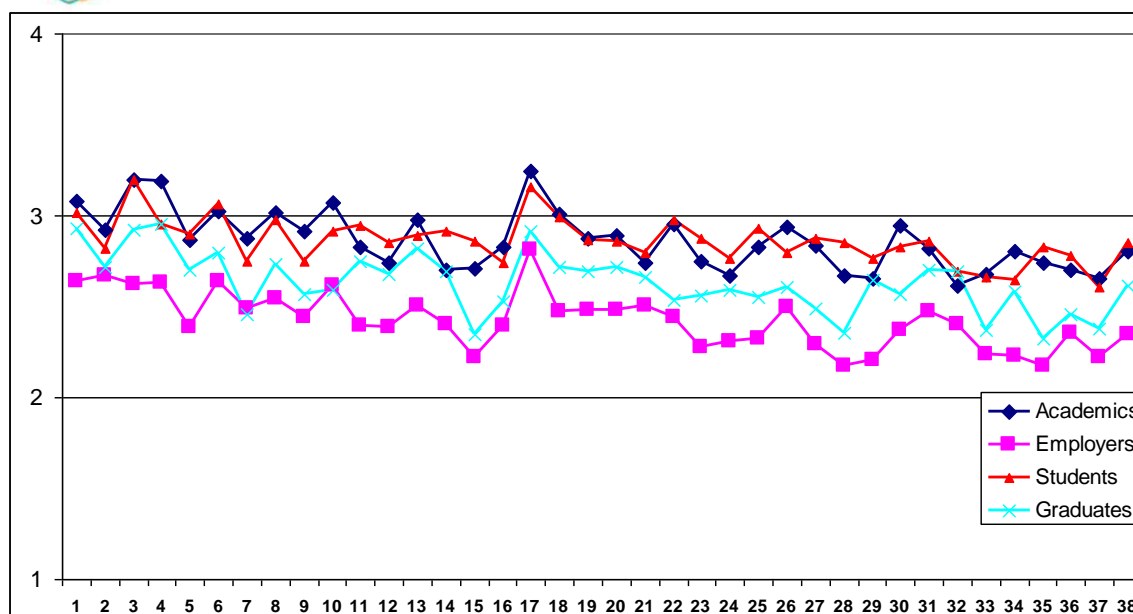
ALL GROUPS

RATINGS OF IMPORTANCE



ALL GROUPS

RATINGS OF ACHIEVEMENTS



In conclusion, there were similarities in the competencies identified as highest and lowest achievement in the four groups. Although there are similarities, the differences between competences were achievement is low and high is very small. There is general consensus on the achievement.

As for ranking, all competences that were ranked '0' may have been considered as repetition of the competency as for example providing counseling, could be a replicate of communicating effectively.

Elaboration of Nursing Meta- Profile

Meta- Profile is a representations of structures of the different combinations of competences that are very specific to subject area. They are mental constructions that categorize structure and organize components into recognizable components and illustrate their inter-relations. Meta-profile explain the relationship between generic and specific competences that are essential for a nursing graduate in the Middle East and North Africa

The Meta Profile was developed followingthe follwing steps

The Meta Profile of nursing group was constructed based on the generic and specific competences' lists developed by its members; the final list of these competences came out to be as follows (after rephrasing renumbering and deleting competences with the least ranking .

- Generated a list of generic and nursing specific competencies
- Categorized and clusteredthese competencies
- Reduced the listto be comprehensive, precise and concise
- Consultedacademic, students, employers, and graduates on the importance, achievement and ranking of competencies
- Developed the final core competencies including the Macro and Micro competencies (genereic and specific) based on the survey analysis.

- developed a framework diagram that represents the core competencies
- Constructed a clear definition of each competency
- Analyzing the gap between meta-profile that was developed by subject area group and what is already existing in each institution.

The following competencies were identified as a core for nursing meta-Profile

Generic Competencies

- Communicate in proper manner verbally and non-verbally with different audiences
- Manage time effectively
- Have critical thinking, analysis, and synthesis
- Act ethically with social responsibility
- Culturally sensitive and respect for dignity
- Maintaining quality of work
- Identify and resolve problems
- Maintain continuous education

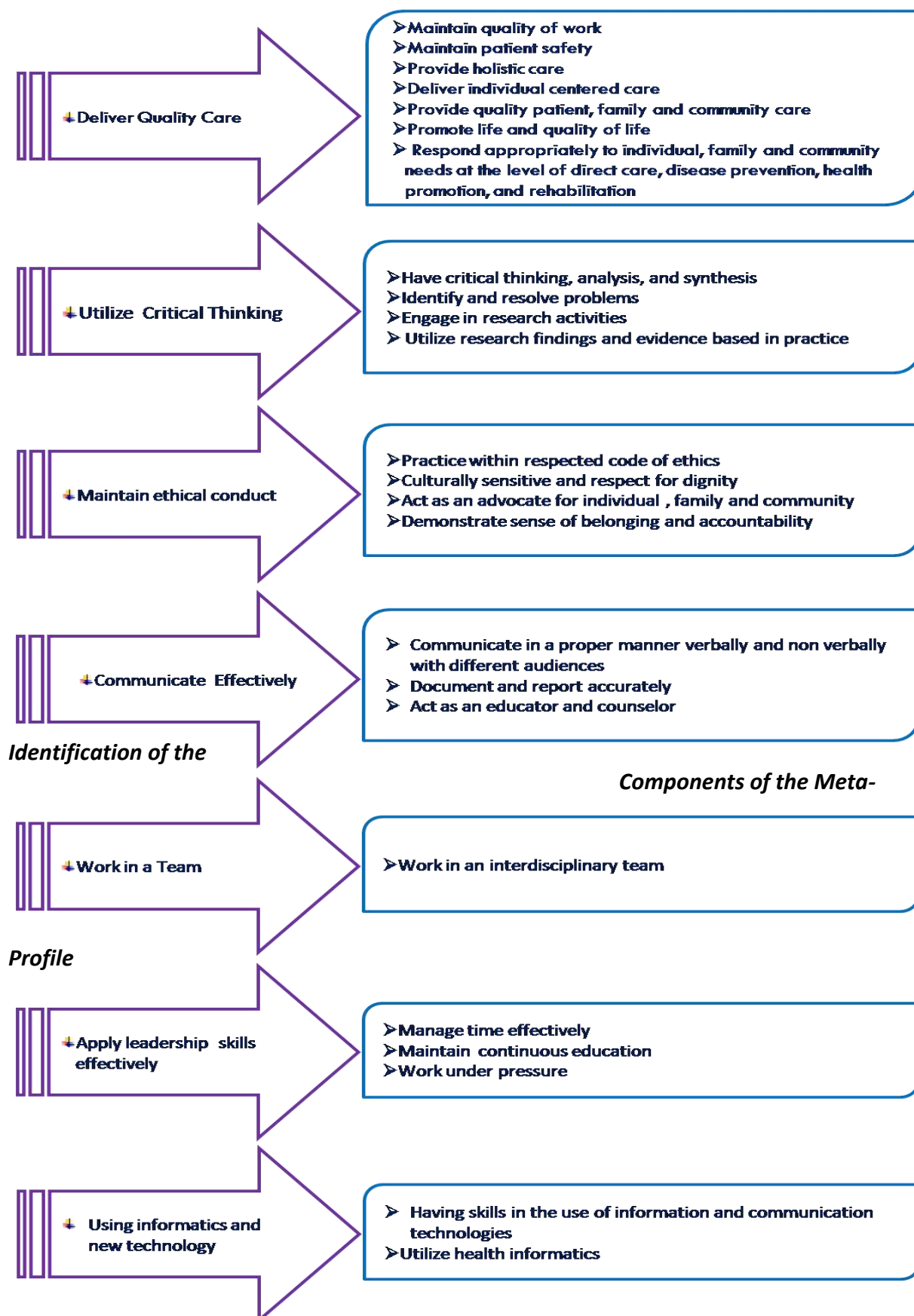
Specific Competencies

- Maintain patient safety
- Practice within the respective code of ethics and legal codes
- Provide holistic care
- Deliver individual centered care
- Promote life and quality of life
- Work in an interdisciplinary team
- Working under pressure
- Culturally sensitive and respect for dignity
- Act as an advocate of the individual, family, community as well as profession
- Act as an educator and counselor
- Provide quality patient, family and community care

*Promote life and quality of life

- Utilize research findings and evidence based in practice.

Nursing Meta- Profile Core Competencies



Components of Meta- Profile	Definition
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Deliver Quality Care	The ability to provide evidence based, person centered care that takes into consideration the holistic needs of the individual, family and the community.
Critical thinking	'The ability to think critically through the application of knowledge and experience, problem solving and decision making " (Potter & Perry's 2004)
Ethical conduct	Being accountable in the delivery of care in line with socially accepted values, beliefs, customs and norms.
Communication	a process of reaching mutual understanding, in which individuals not only share information but also create and share meaning, a means of connecting people and places
Team Work	"a dynamic process involving two or more healthcare professionals with complementary backgrounds and skills, sharing common health goals and exercising concerted physical and mental effort in assessing, planning, or evaluating patient care" (Wikipedia, the free encyclopedia)
Leadership	The ability to guide, direct, influence and support the others in the accomplishment of a common task. Also, coordinating and balancing the conflicting interests of all members and stakeholders
Using informatics and technology	Nursing skills related to informatics and technology to deliver health care and professional development

References :

1. *Potter PA, Perry AG (2004) Fundamentals of Nursing, 6ed . St Louis, Mosby*
2. *Wikipedia, the free encyclopedia)*
3. *Luz Angelica et al (2014) Higher Education in Latin America : Reflection and Perspectives on Nursing, University of Deusto - Bilbao*

REFERENCE POINTS FOR THE DESIGN AND DELIVERY OF DEGREE PROGRAMMES IN TOURISM

Content:

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Appendix 3: Tourism Job Descriptions in MENA Countries (Legislations & Profession Codes) and Competences developed by Tourism SAG of Tuning Middle East and North Africa (T-MEDA) Project

Introduction

The Tuning Middle East and North Africa (T-MEDA) project aims to bring about more clarity and understanding regarding university qualifications, facilitating comparability and compatibility between different universities in the Middle East and North Africa. This is to be achieved by forming of subject area groups (Architectural Engineering, Law, Nursing and Tourism) from different partner universities in the MENA region. These groups are in charge of defining general and specific competences that will be the focus of a survey, which will serve to consult with the four targeted categories of stakeholders (students, employers, graduates and faculty members). Based on the results of this survey, profiles of subject areas were designated and new curricula will be developed, the result will be implementation and assessment of new programs that will take place in the partner universities, this will be followed by continuous improvement and enhancement for them to assure quality of educational outcomes. All these stages took place in general meetings conducted by the project, where all partner universities had the opportunity to meet and work on planned activities. (Source: **Tuning Middle East and North Africa- First General Meeting Book**; distributed during the 1st General Meeting May 2nd to 6th 2014)

Tourism Subject Area Group (SAG) Members

For the subject area of tourism, a group of universities offering different programs of tourism and hospitality in the MENA region were selected, these are as follows:

Table 1: The partner universities participating in MEDA Tuning Project/ Tourism Subject Area, and offered the programs

University	Country	The Program(s) Offered by the University	Length of the Program
Suez Canal University	Egypt	Tourism Studies/B.Sc. Hotel Management/B.Sc. Tourism Guidance/B.Sc. Diploma in Tourism Studies Diploma in Hotel Management Diploma in Tourism Guiding Tourism Studies/M.Sc. Hotel Management/M.Sc. Tourism Guidance/M.Sc. Tourism Studies/Ph.D.	4 years for B.Sc. programs (35 credits per year) 2 years for Diploma, M.Sc., and Ph.D.

		Hotel Management/Ph.D. Tourism Guidance/Ph.D.	
Hashemite University	Jordan	Tourism Management/B.A.	4 years for B.A. program (132 credit hours)
Yarmouk University		Tourism Management/B.A. Hotel Management/B.A. Tourism/M.A.	4 years for B.A. programs (132 credit hours) 2 years for M.A. (33 credit hours)
Modern University for Business and Science	Lebanon	Master degree in Hospitality (Double degree) Tourism/B.A. Hospitality/B.A.	3 years program (94 credits) A four year option that entail a one year of experience
University of Balamand	Lebanon	Tourism and Hotel Management/B.B.A.	3 years for B.B.A. program (99 credits)
University of Omar Al mukhtar	Libya	Tourism Studies/B.A.	4 years for B.A. program (6 to 11 Subjects Each Year).
Université Moulay Ismail	Morocco	Hotel and Tourism Management/B.A.	2-3 years for B.A. program 1800 contact hours/2 years 2160 contact hours/3 years
University Mohammed First		Diploma of Technology Tourism and Heritage/M.A.	2 years for Diploma and M.A. program 1800 contact hours/2 years 2160 contact hours/3 years M.A. 1400
Palestine Ahliyah University College /	Palestine	Medical Tourism/B.Sc. Medical Tourism/Diploma	4 years for B.Sc. program (135 credits) 1 year for

Bethlehem			Diploma (30 credits)
University of Monastir	Tunisia	Licence in Tourism Management Licence in Tourism Marketing Licence in Tourism Animation Hospitality and Tourism Management/M.A.	3 years for Licence program (180 credits) 3 years for licence
University of Tunis		Heritage Tourism Development/M.A.	2 years for M.A. program

The following is a brief summary about each of these establishments:

Suez Canal University

[\(http://tourism.scuegypt.edu.eg/\)](http://tourism.scuegypt.edu.eg/)

SCU was inaugurated in 1976 as a community-oriented public university in Egypt, to serve Suez Canal Region and Sinai,. The Faculty of Tourism & Hotels was first open in 1995 and graduated its first group of students in 1999. The faculty has three departments which are Tourism Studies, Hotel Management and Tourism guidance. The faculty is in the process of constructing a new educational building and a hotel inside Suez Canal University campus. The faculty has two other branches, one is located in Sharm Elshiekh and the other is in Elarish. Both have accommodation units and training centers for students and managed by the faculty staff.

Hashemite University

[\(http://www.hu.edu.jo/fac/Default.aspx?facid=69000000\)](http://www.hu.edu.jo/fac/Default.aspx?facid=69000000)

Queen Rania Faculty of Tourism & Heritage was established in September 2000 to assume an important role with collaborators within and outside the university to provide assistance and support to enhance sustainable management of natural, environmental and cultural resources throughout Jordan. The faculty started to accept students in the year 2001/2002, it offers 3 B.Sc. /B.A. degrees in Tourism Management, Conservation Science, & Cultural Resources Management and Museology; also a Masters degree in the field of Archaeology of Ancient Arab Civilizations

Yarmouk University

[\(http://www.yu.edu.jo/en/?option=com_k2&view=itemlist&layout=category&task=category&id=68&Itemid=530\)](http://www.yu.edu.jo/en/?option=com_k2&view=itemlist&layout=category&task=category&id=68&Itemid=530)

The faculty of Tourism and Hotel Management was established at Yarmouk University in the academic year 2011-2012 as part of the university orientation to make available the necessary qualified and specialized manpower that contributes to sustain the economic and social development in Jordan. The faculty encompasses two departments: The Tourism Department, and the Hotel Management Department. It offers a 4- year B.A. program in hotel management , a 4- year B.A. program in tourism management and a 2- year M. A program in tourism.

Modern University for Business and Science

(<http://www.mubs.edu.lb/en/main/academics/schools/international-school-of-business.aspx>)

School of Business Administration offers during the initial semesters a core curriculum for all business students. In the later semesters, when students have the knowledge to evaluate their business interests, students specialize in certain functional areas while still developing their overall business knowledge and transferable skills. The available concentrations are: Accounting, Banking & Finance, Business Administration, Business Information Systems, Human Resource Management, Management, Marketing, Tourism and Hospitality.

University of Balamand

(<http://www.balamand.edu.lb/Academics/Faculties/THM/Template/Pages/default.aspx>)

The University of Balamand, founded in 1988, is a private non-profit independent Lebanese institution of Higher Education licensed by the State of Lebanon. The School of Tourism and Hotel Management offer a 3-year BBA program of 99 credits majoring in Tourism and Hotel Management. The teaching language is English. The curriculum has three components: university required courses, business required courses and hospitality/tourism required courses.

University of Omar Almukhtar

(<http://www.omu.edu.ly/>)

The Faculty of Tourism & Archaeology was established in 2010, it offers B.Sc. in Tourism and Archaeology, which is a 4 year program where students take 6 to 11 subjects each year. The faculty encompasses three departments: Department of Tourism Studies, Department of Classical Archaeology, and Department of Islamic Archaeology.

Université Moulay Ismail

www.umi.ac.ma

University Moulay Ismail of Meknes was established on October 23rd 1989; it includes 6 schools; these are as follows: The School of Sciences (FS), The School of Arts and Humanities (FLSH), The School of Law, Economics and Social Sciences (FSJES), The School of Sciences and Technology – Errachidia (FST), The School of Engineering (ENSAM), The Graduate School of Technology (EST), The Polydisciplinary School – Errachidia (FP), in which tourism training programs are offered, and The (School of Teaching Training) Ecole Normale Supérieure (ENS)

University Mohammed First

www.univ-oujda.ac.ma

Mohamed the First University 'MFU' (Oujda, Morocco) was established in 1978 in Oujda. The University Mohamed First provides two degrees: a Master in Tourism and Heritage, and a University Diploma of Technology in Tourism Management. The 12 major modules for the Master degree program aim at training of mediation and communication for cultural tourism; they are centered on 2 aspects: knowledge and management of cultural heritage; and knowledge about activities and crafts of tourism. The University Diploma of Technology is directed to train on managerial skills related to tourism.

Palestine Ahliyah University College / Bethlehem

<http://www.paluniv.edu.ps/?p=main>

Palestine Ahliya University College (PAUC) is a higher education institution that was established in 2006 as a culmination of a joint venture between selective academics and

investors for social development and maintenance of national capital within the country. The college includes departments that offer the following bachelor degree programs: Department of Arts and Sciences, Department of Law, Department of Medical Sciences, Department of Information Technology, and the Department of Administrative and finance Sciences, which offers a bachelor degree in accounting, business administration, finance and banking, also the Medical Tourism Program.

University of Monastir

(www.um.rnu.tn)

The University of Monastir was founded in 2004 and is organized in 6 faculties and several institutions. One of these is the Higher Institute of Applied Studies in Humanities of Mahdia (ISEAH), which offers a BA in Tourism Marketing and a Master degree program in Hospitality and Tourism Management. There is also the Applied License in Tourism Animation, which focuses mainly on making students aware of different tourism potentials in the country, and to train them on communication and linguistics skills required to work in tourism facilities.

University of Tunis

(www.ens.rnu.tn)

University of Tunis was established in 1988, the university provides 113 degrees within sixteen higher education and scientific research institutions. One of these is the Higher Institution of Heritage Careers in Tunisia, which offers two professional Master programs, these are: Heritage Tourism Development and Applied Heritage on Traditional Crafts.

The Tuning methodology and approaches, as well as overall coordination and project management will be provided by University of Deusto. The tourism SAG includes also a number of experts/partners from EU universities who have extensive experience and international cooperation regarding educational expertise and technical capacity in project management, which are all required to carry out all aspects of the project stages, these members are:

Expert Name	The Institution	Role
Alvaro DE LA RICA	University of Deusto	Coordinator
Ana GOYTIA PRAT	University of Deusto	Coordinator
Gerold BEYER	Universite d'Angers	Coordinator
Pascal MISSIR	Universite d'Angers	Contact Person

To evaluate the current status of tourism and hospitality programs in participating universities, a SWOT analysis is presented here, which is a compilation of individual SWOT analysis submitted by the Tourism SAG members (The issues mentioned in the SWOT analysis were indirectly discussed during the first meeting, and they had a great influence in directing the group when suggesting different competences) :

Table 2: A SWOT Analysis Concerning Tourism and Hospitality Education in SAG Member Universities (Note: countries in MENA region vary in terms of offering tourism & hospitality programs; e.g. Syrian universities are not widely offering these programs, which is not the case of other countries as Egypt, Jordan, an Lebanon).

Strengths	Weaknesses	Opportunities	Threats

<ul style="list-style-type: none"> - The large number of hotels and travel agencies which are necessary for internship and practical training. - The excellence of entrepreneurs in F&B new concepts and their franchising which can be translated into a considerable number of job opportunities (mainly applies to Lebanon). -The big number of job opportunities offered by the private sector. 	<ul style="list-style-type: none"> - Lack of support from the Ministries of Education/Higher Education relation to admission standards and curricula at schools. - Negative perception of local communities about tourism jobs - Colleges are perceived as too academic, teaching skills and their application in an isolated context, but not the basic and potential skills of how to run a business. - Lack of coordination with private sector in different stages of developing curricula, training and recruitment - Many hospitality programs aim to prepare students for managerial positions without being really designed to develop students for such positions; there is so little focus on their problem identification skills, communication skills, and analytical skills, also the ability to synthesize information, creativity and leadership skills. - In many universities, there are no technical facilities such as laboratories and technology to support the curriculum. 	<ul style="list-style-type: none"> - Having some tourism schools involved in projects as Erasmus and T-MEDA, which will facilitate future development of the tourism education. - Affiliation of some tourism schools with well-known hospitality schools 	<ul style="list-style-type: none"> - Political instability affecting tourism sector performance - In some countries, hiring unqualified foreign workers with lower salary to take the place of qualified workers
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Developing the Lists of Generic & Specific Competences

During the First General Meeting (May 2nd to 6th, Jordan), several sessions were held where the following was done:

- The four (SAGs) were formed (including the tourism group)
- A SAG coordinator was elected for the group.
- An oral brief presentation was given by each member of the group about the program offered by the university he/she represents.

The following is a list of job opportunities available to tourism and hospitality graduates as stated by participating universities

- Tour Operators/ Travel Agents
 - Airlines (Boarding and Hosting)
 - Tour Guides and Escorts (Different Languages)
 - Tourism Marketing
 - Hotel/ F&B: Management and Operation (All Departments)
 - Tourism Governmental and Non-governmental Organisations (All Departments)
 - Tourism and Hospitality education and Training
 - Tourist Consultants
 - Cruise Couriers
 - Event Organizers
 - Regional Destination and Site Manager
 - Tourism Entrepreneur

(See Appendix 3 for job description for most of these careers based on legislations and profession codes in some MENA countries)

In order to define generic and specific competence, the tourism group members were asked in a brain storming session to list a number of key competences related to knowledge and skills needed in tourism employability, for example: management, work ethics, sustainability, leadership, multicultural scope, communication, innovation, ethics, problems solving... etc. These suggested competences were listed by the coordinator and EU experts/partners (as facilitators), where some were eliminated, others were rephrased.

Based on these concepts, a draft list of 12 general competences were generated and agreed on by the tourism group members, and these came out to be as follows:

1. Diversity & multicultural scope
2. Entrepreneurship
3. Leadership & managerial skills
4. Customer care and retention
5. Planning & time management
6. Research skills
7. Commitment to health and safety
8. Continuous professional development
9. Commitment & ability to lifelong learning
10. Ability to reflect and provide feedback
11. Ability to act with social responsibility & civic awareness
12. Commitment to social justice

All the proposed generic competences suggested by other SAG's, were put together and the following final list of competences was common among all groups:

Ability to:

- GC1. Manage time effectively
- GC2. Communicate orally and in writing with different audiences
- GC3. Maintain continuous education
- GC4. Have critical thinking, analysis and synthesis
- GC5. Identify and resolve problems
- GC6. Make logical decisions
- GC7. Work in an interdisciplinary team
- GC8. Lead effectively
- GC9. Work autonomously
- GC10. Maintain quality of work
- GC11. Act ethically with social responsibility
- GC12. Apply knowledge in practical situations
- GC13. Communicate in a second language
- GC14. Be innovative and creative
- GC15. Be flexible and adapt to different situations
- GC16. Empower others
- GC17. Search for information from a variety of sources
- GC18. Protect and preserve the environment

Commitment to:

- GC19. Human rights
- GC20. Health and safety procedures
- GC21. The preservation of cultural heritage and values

Having:

- GC22. Organizational skills
- GC23. Sense of dedication
- GC24. Respect for diversity and multiculturalism
- GC25. Skills in the use of information and communication technologies

Being:

- GC26. Initiative-driven
- GC27. Self-motivated
- GC28. Assertive

It is well known that all tourism and hospitality careers share the need to have the employees acquainted with some particular competences to professionally perform in different types of operations. These are: having good communication skills (verbal and non-verbal communication+ foreign languages), working in a team, mastering management knowledge and skills, working in a multi-cultural environment, using information technology skills, applying health and safety procedures and ethics. Though, it must be mentioned that such requirements are not equally covered in the programs offered by participating universities.

Therefore, a list of subject specific competences was developed by tourism SAG that covers knowledge areas and skills required in the previously mentioned jobs, these were:

Ability to:

- SC1. assess and understand the global and local tourism potentials
- SC2. demonstrate hands-on experience in real life environment
- SC3. apply knowledge and skills in tourism jobs
- SC4. understand different market segments for marketing, research and communication
- SC5. understand concepts such as carrying capacities and ecological footprint
- SC6. effectively operate tourism companies
- SC7. make effective identification and presentation of tourist environment
- SC8. manage customers and stakeholders in English/another foreign language
- SC9. coordinate and networking with stakeholders
- SC10. financially manage tourism services
- SC11. understand the current issues in tourism and other general knowledge
- SC12. have knowledge and capabilities of procurement techniques
- SC13. develop knowledge of key concepts, theories and practices in the tourism activities
- SC14. identify the natural and cultural tourism resources
- SC15. perform accounting and money transactions

The group members worked on translating the English version of the competences to Arabic and French in order to facilitate the consultation process. The project coordinators clarified the sampling technique and framework considered while reaching the stakeholders (employers, students, academics and graduates). The following sections show the results of this process and main conclusions.

The Consultation

The four categories of stakeholders, academics, students, graduates and employers, were asked to fill an online survey, where both generic and specific competences were to be evaluated on 4-point scale:

- 1: none,
- 2: weak,
- 3: considerable,
- 4: strong,

Each competence was rated for both importance and achievement. Moreover, respondents were asked to select the five most important competences, according to this, points were given in descending order from 5 points to 1.

Consequently, there will be a focus on 3 main indicators:

- Means of ratings,
- Rankings and
- Correlations between importance and achievement.

Each member in the SAG was requested to target at least 30 respondents for each category of stakeholders (i.e. a total of 11 SAG members × 4 categories × 30 = 1320 respondents for SAG).

The project management provided each SAG member with the following to reach respondents:

- A username,
- Letters of request to fill the survey and

A link and a password to access to the on-line survey.

The response to the survey by stakeholders took place during the period 16/06 to 17/07, after which the project management processed the data and came out with the final results of the consultation to be presented in the second general meeting.

Analysis and Results

Concerning the Generic Competences, 2687 respondents filled the related part of the survey in the 4 subject areas, out of which 645 were in the Tourism area. The distribution of these responses upon the four consulted categories is as follows:

Table 3: Number of respondents to consultation to Generic and Specific Competences lists

Stakeholders	Number of Respondents			
	Generic Competences		Specific Competences	
	N	%	N	%
Academics	148	22.95	110	24.77
Employers	130	20.16	93	20.95
Students	195	30.323	125	28.15
Graduates	172	26.67	116	26.13
Total	645	100	444	100

The above table shows that barely the half of the expected number on responses was reached since some countries were unable to contribute, or partially contributed, to the survey process for many reasons related to their local context.

Concerning the Specific Competences in tourism subject area, number of respondents was 444 out of the 1874 who responded to the specific competences of the four SAGs.

The country wise distribution was as table 3 shows:

Table 3: Number of respondents to consultation as distributed in countries of partner universities

Stakeholders	Number of Respondents			
	Generic Competences		Specific Competences	
	N	%	N	%
Egypt	19	2.95	14	3.15
Jordan	190	29.46	145	32.66
Lebanon	228	35.35	223	50.23
Libya	120	18.60	5	1.13
Morocco	29	4.50	16	3.60
Tunisia	59	9.15	41	9.23
Total	645	100	444	100

Generic Competences Results

By looking at the results of evaluation for generic competences, it is noticed that most of the means for the measured items in importance scale ranged from 3 (considerable) to 4 (strong), while all the means in the achievement scale ranged from 2 (weak) to 3 (considerable). The highest and lowest scores for the four groups of stakeholders were as follows:

Academics:

For importance, the 6 competences with highest mean scores were:

- GC10. Ability to maintain quality of work (3.41)
- GC1. Ability to manage time effectively (3.32)
- GC5. Ability to identify and resolve problems (3.30)
- GC2. Ability to communicate orally and in writing with different audiences (3.27)
- GC12. Ability to apply knowledge in practical situations (3.27)
- GC27. Being self-motivated (3.27)

The 5 competences with the least mean scores were:

- GC22. Having organizational skills (2.98)
- GC8. Ability to lead effectively (2.95)
- GC23. Having sense of dedication (2.94)
- GC16. Ability to empower others (2.93)
- GC9. Ability to work autonomously (2.71)

For achievement, the 5 competences with highest mean scores were:

- GC25. Having skills in the use of information and communication technologies (2.61)
- GC17. Ability to search for information from a variety a sources (2.59)
- GC2. Ability to communicate orally and in writing with different audiences (2.59)
- GC11. Ability to act ethically with social responsibility (2.58)
- GC12. Ability to apply knowledge in practical situations (2.54)

The 5 competences with the least mean scores were:

- GC4. Ability to have critical thinking, analysis, and synthesis (2.19)
- GC 27. Being self-motivated (2.23)
- GC23. Having sense of dedication (2.23)
- GC16. Ability to empower others (2.24)
- GC8. Ability to lead effectively (2.25)

The following can be noticed:

- GC12. was one of the highest five competences for importance, also for achievement
- GC27. was one of the highest five competences for importance, but was one of the five lowest for achievement
- GC16. was one of the of the lowest five competences for importance, also for achievement

For rankings, the following general competences were the highest (i.e. these were considered as the most important by this group of respondents):

- GC1. Ability to manage time effectively.
- GC2. Ability to communicate orally and in writing with different audiences
- GC12. Ability to apply knowledge in practical situations
- GC4. Ability to have critical thinking, analysis, and synthesis.
- GC3. Ability to maintain continuous education

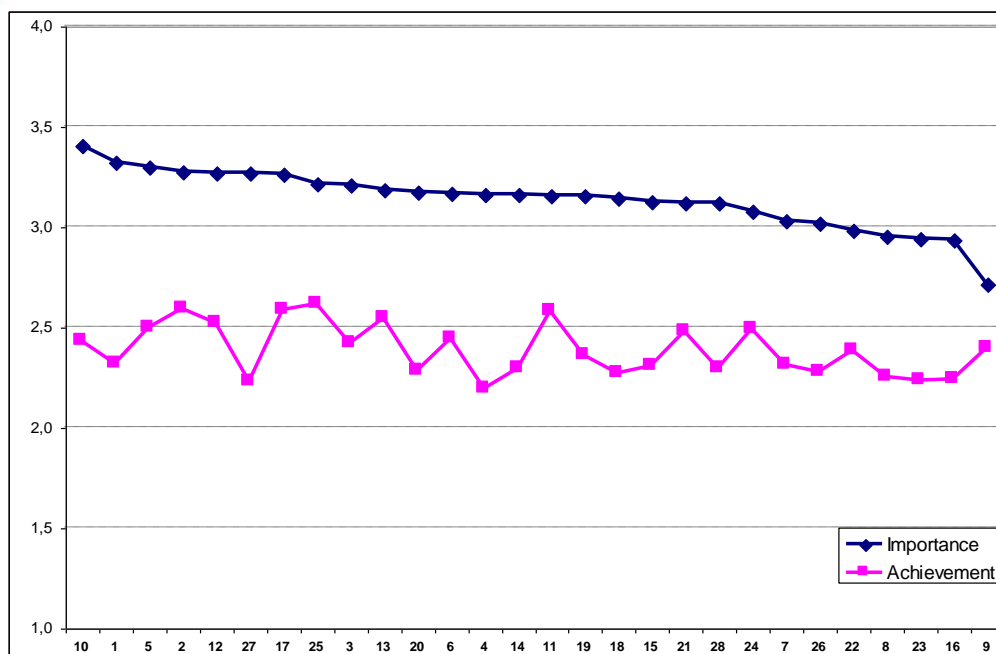


Figure 1: A line chart showing the means of evaluation of generic competences given by Academics for both importance and achievement

Employers

For importance, the 5 competences with highest mean scores were:

- GC10. Ability to maintain quality of work (3.34)
- GC5. Ability to identify and resolve problems (3.30)
- GC1. Ability to manage time effectively (3.25)
- GC19. Commitment to human rights (3.20)
- GC20. Commitment to health and safety procedures (3.20)

The 5 competences with the least mean scores were:

- GC7. Ability to work in an interdisciplinary team (2.94)
- GC23. Having sense of dedication (2.95)
- GC22. Having organizational skills (2.95)
- GC16. Ability to empower others (2.85)
- GC9. Ability to work autonomously (2.66)

For achievement, the 6 competences with highest mean scores were:

- GC3. Ability to maintain continuous education (2.55)
- GC21. Commitment to the preservation of cultural heritage and values (2.50)
- GC25. Having skills in the use of information and communication technologies (2.46)
- GC17. Ability to search for information from a variety a sources (2.43)
- GC2. Ability to communicate orally and in writing with different audiences (2.36)
- GC26. Being Initiative-driven (2.36)

The 5 competences with the least mean scores were:

- GC9. Ability to work autonomously (2.13)
- GC7. Ability to work in an interdisciplinary team (2.13)
- GC28. Being assertive (2.12)
- GC8. Ability to lead effectively (2.12)
- GC6. Ability to make logical decisions (2.11)

It can be noticed that GC9 was one of the lowest five competences for importance, also for achievement.

For rankings, the following general competences were the highest (i.e. these were considered as the most important by this group of respondents):

- GC1. Ability to manage time effectively.
- GC3. Ability to maintain continuous education
- GC5. Ability to identify and resolve problems
- GC10. Ability to maintain quality of work.
- GC11. Ability to act ethically with social responsibility

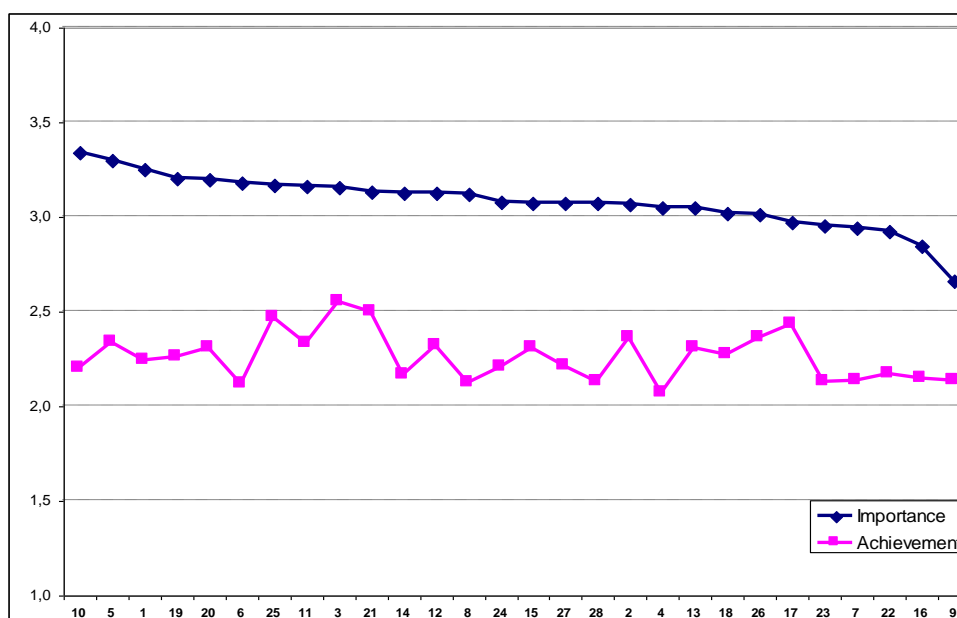


Figure 2: A line chart showing the means of evaluation of generic competences given by - Employers for both importance and achievement

Students

For importance, the 5 competences with highest mean scores were:

- GC10. Ability to maintain quality of work (3.16)
- GC1. Ability to manage time effectively (3.15)
- GC27. Being self-motivated (3.13)
- GC19. Commitment to human rights (3.12)

- GC20. Commitment to health and safety procedures (3.11)

The 5 competences with the least mean scores were:

- GC22. Having organizational skills (2.85)
- GC16. Ability to empower others (2.81)
- GC23. Having sense of dedication (2.78)
- GC7. Ability to work in an interdisciplinary team (2.73)
- GC9. Ability to work autonomously (2.58)

For achievement, the 5 competences with highest mean scores were:

- GC11. Ability to act ethically with social responsibility (2.73)
- GC10. Ability to maintain quality of work (2.72)
- GC21. Commitment to the preservation of cultural heritage and values (2.67)
- GC3. Ability to maintain continuous education (2.65)
- GC25. Having skills in the use of information and communication technologies (2.64)

The 5 competences with the least mean scores were:

- GC28. Being assertive (2.44)
- GC6. Ability to make logical decisions (2.44)
- GC14. Ability to be innovative and creative (2.41)
- GC9. Ability to work autonomously (2.35)
- GC23. Having sense of dedication (2.32)

The following is to be noticed:

- GC10. was one of the of the highest five competences for importance, also for achievement
- GC9. was one of the of the lowest five competences for importance, also for achievement

For rankings, the following general competences were the highest (i.e. these were considered as the most important by this group of respondents):

- GC1. Ability to manage time effectively.
- GC3. Ability to maintain continuous education
- GC2. Ability to communicate orally and in writing with different audiences
- GC5. Ability to identify and resolve problems
- GC27. Being self-motivated

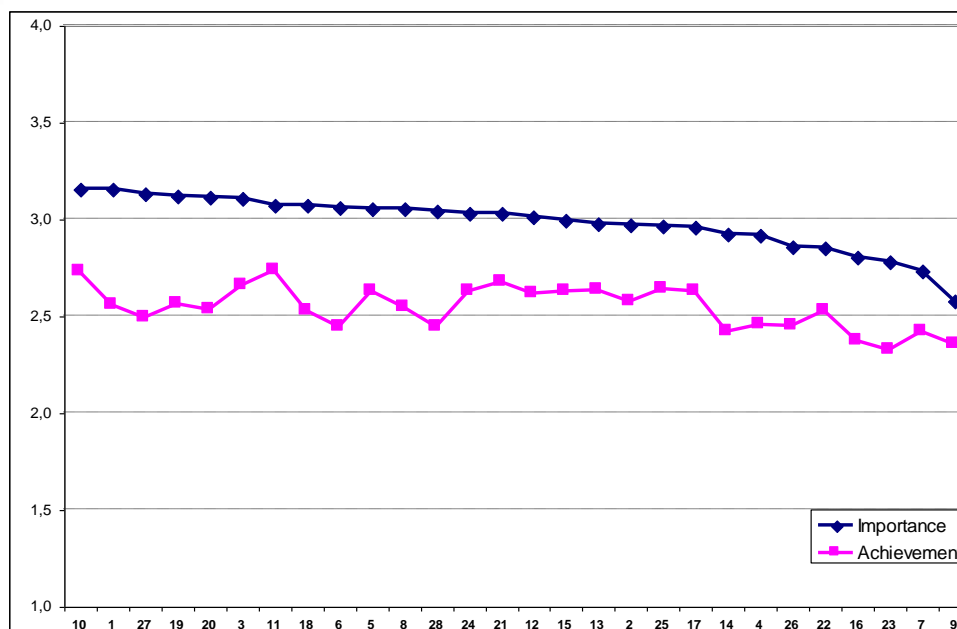


Figure 3: A line chart showing the means of evaluation of generic competences given by - Students for both importance and achievement

Graduates

For importance, the 5 competences with highest mean scores were:

- GC20. Commitment to health and safety procedures(3.36)
- GC6. Ability to make logical decisions(3.34)
- GC25. Having skills in the use of information and communication technologies (3.33)
- GC12. Ability to apply knowledge in practical situations (3.33)
- GC19. Commitment to human rights (3.32)

The 5 competences with the least mean scores were:

- GC24. Having respect for diversity and multiculturalism (3.12)
- GC4. Ability to have critical thinking, analysis, and synthesis. (3.12)
- GC16. Ability to empower others. (3.06)
- GC23. Having sense of dedication (3.02)
- GC9. Ability to work autonomously (2.75)

For achievement, the 5 competences with highest mean scores were:

- GC17. Ability to search for information from a variety a sources (2.70)
- GC13. Ability to communicate in a second language (2.67)
- GC25. Having skills in the use of information and communication technologies (2.66)
- GC11. Ability to act ethically with social responsibility (2.59)
- GC2. Ability to communicate orally and in writing with different audiences (2.58)

The 5 competences with the least mean scores were:

- GC27. Being self-motivated (2.33)
- GC7. Ability to work in an interdisciplinary team(2.28)
- GC8. Ability to lead effectively (2.26)
- GC22. Having organizational skills (2.23)
- GC24. Having respect for diversity and multiculturalism (2.16)

The following is to be noticed:

- GC24. was one of the of the lowest five competences for importance, also for achievement
- GC25. was one of the of the highest five competences for importance, also for achievement

For rankings, the following general competences were the highest (i.e. these were considered as the most important by this group of respondents):

- GC1. Ability to manage time effectively.
- GC10. Ability to maintain quality of work
- GC11. Ability to act ethically with social responsibility
- GC3. Ability to maintain continuous education
- GC14. Ability to be innovative and creative

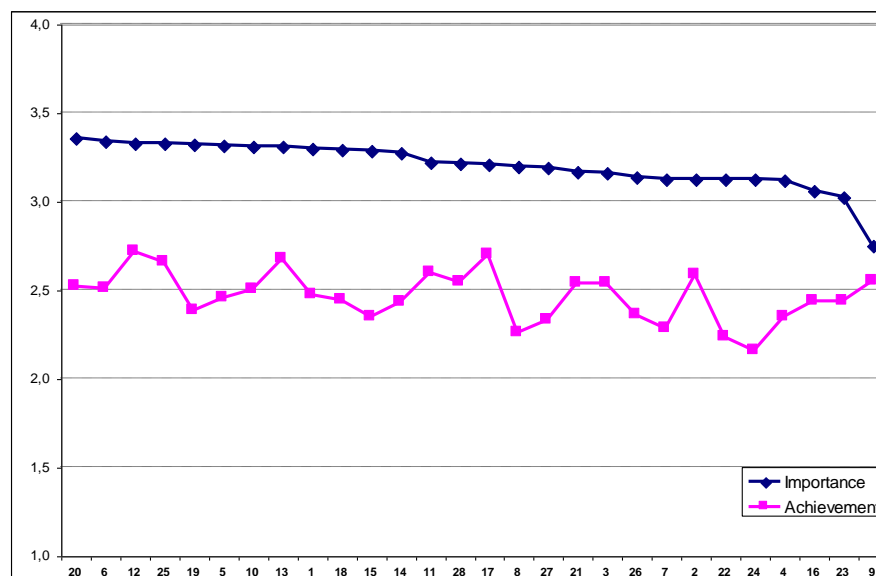


Figure 4: A line chart showing the means of evaluation of generic competences given by - Graduates for both importance and achievement

Specific Competences Results

For specific competences, the difference was clear between the mean scores for importance and achievement, where in the former, they were higher and most of the means were between 2 (weak) and 4 (strong), while all means for the latter were between 2 (weak) and 3

(considerable). The 3 highest and 3 lowest means for the competences in importance scale were as follows:

Table 5: The highest and lowest mean scores of responses by stakeholders for the generic and specific competences in importance scale

The Group	Competences with lowest means	Mean	Competences with highest means	Mean
Academics	SC12. Ability to have knowledge and capabilities of procurement techniques	2.85	SC2. Ability to demonstrate hands-on experience in real life environment	3.36
	SC14. Ability to identify the natural and cultural tourism resources.	2.85	SC8. Ability to manage customers and stakeholders in English/another foreign language	3.33
	SC15. Ability to perform accounting and money transactions	2.84	SC4. Ability to understand different market segments for marketing, research and communication	3.28
Employers	SC15. Ability to perform accounting and money transactions	2.93	SC8. Ability to manage customers and stakeholders in English/another foreign language	3.32
	SC14. Ability to identify the natural and cultural tourism resources	2.88	SC2. Ability to demonstrate hands-on experience in real life environment	3.25
	SC12. Ability to have knowledge and capabilities of procurement techniques	2.83	SC6. Ability to effectively operate tourism companies	3.24

Students	SC5. Ability to understand concepts such as carrying capacities and ecological footprint.	3.01	SC2. Ability to demonstrate hands-on experience in real life environment	3.29
	SC4. Ability to understand different market segments for marketing, research and communication	3.00	SC3. Ability to apply knowledge and skills in tourism jobs	3.26
	SC15. Ability to perform accounting and money transactions	2.95	SC8. Ability to manage customers and stakeholders in English/another foreign language	3.22
Graduates	SC14. Ability to identify the natural and cultural tourism resources	2.99	SC8. Ability to manage customers and stakeholders in English/another foreign language	3.35
	SC12. Ability to have knowledge and capabilities of procurement techniques	2.95	SC3. Ability to apply knowledge and skills in tourism jobs	3.34
	SC15. Ability to perform accounting and money transactions	2.81	SC2. Ability to demonstrate hands-on experience in real life environment	3.31

The 3 highest and 3 lowest means for the competences in achievement scale were as follows:

Table 6: The mean scores of responses by stakeholders for the generic and specific competences in achievement scale

The Group	Competences with lowest means	Mean	Competences with highest means	Mean
Academics	SC12. Ability to have knowledge and	2.21	SC8. Ability to manage customers and	2.67

	capabilities of procurement techniques		stakeholders in English/another foreign language	
	SC15. Ability to perform accounting and money transactions	2.33	SC4. Ability to understand different market segments for marketing, research and communication	2.57
	SC14. Ability to identify the natural and cultural tourism resources	2.38	SC3. Ability to apply knowledge and skills in tourism jobs	2.56
Employers	SC12. Ability to have knowledge and capabilities of procurement techniques	2.22	SC8. Ability to manage customers and stakeholders in English/another foreign language	2.57
	SC14. Ability to identify the natural and cultural tourism resources	2.31	SC4. Ability to understand different market segments for marketing, research and communication	2.49
	SC9. Ability to coordinate and with stakeholders.	2.31	SC11. Ability to understand the current issues in tourism and other general knowledge	2.49
Students	SC5. Ability to understand concepts such as carrying capacities and ecological footprint.	2.46	SC2. To demonstrate hands-on experience in real life environment	2.90
	SC9. Ability to coordinate and with stakeholders.	2.46	SC3. Ability to apply knowledge and skills in tourism jobs	2.88
	SC12. Ability to have knowledge and capabilities of procurement	2.60	SC13. To develop knowledge of key concepts, theories and practices in the tourism activities	2.80

	techniques			
Graduates	SC5. Ability to understand concepts such as carrying capacities and ecological footprint.	2.31	SC8. Ability to manage customers and stakeholders in English/another foreign language	2.97
	SC12. Ability to have knowledge and capabilities of procurement techniques	2.48	SC3. Ability to apply knowledge and skills in tourism jobs	2.80
	SC15. Ability to perform accounting and money transactions and	2.53	SC1. Ability to assess and understand the global and local tourism potentials.	2.80
	SC11. Ability to understand the current issues in tourism and other general knowledge.	2.53		

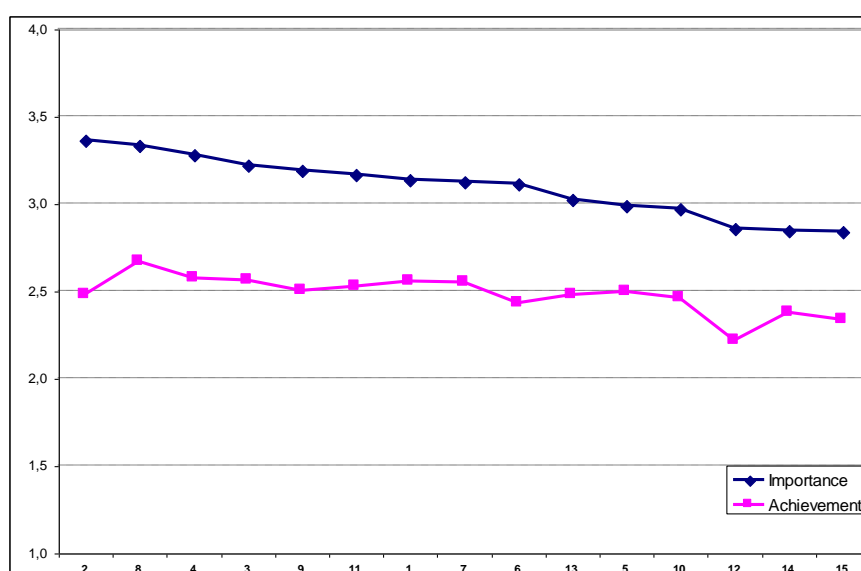


Figure 5: A line chart showing the means of evaluation of specific competences given by - Academics for both importance and achievement

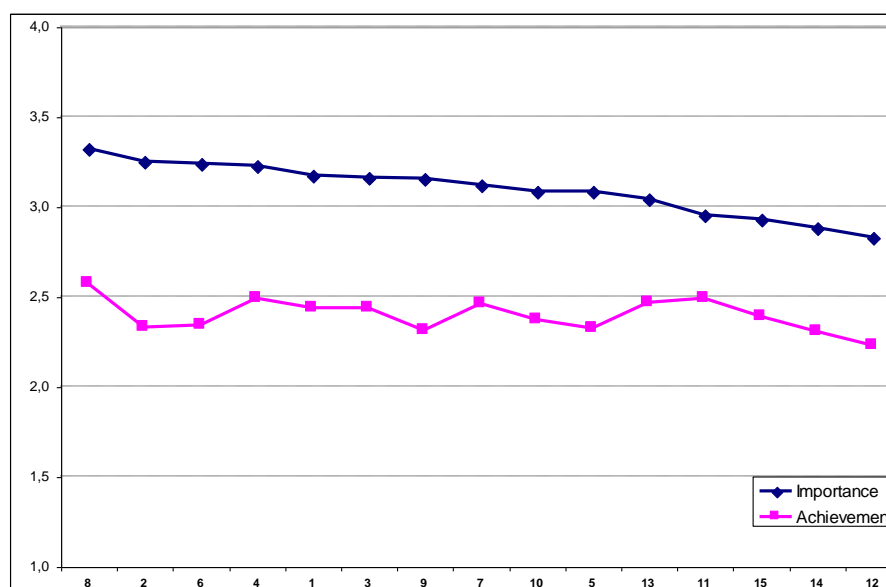


Figure 6: A line chart showing the means of evaluation of specific competences given by - Employers for both importance and achievement

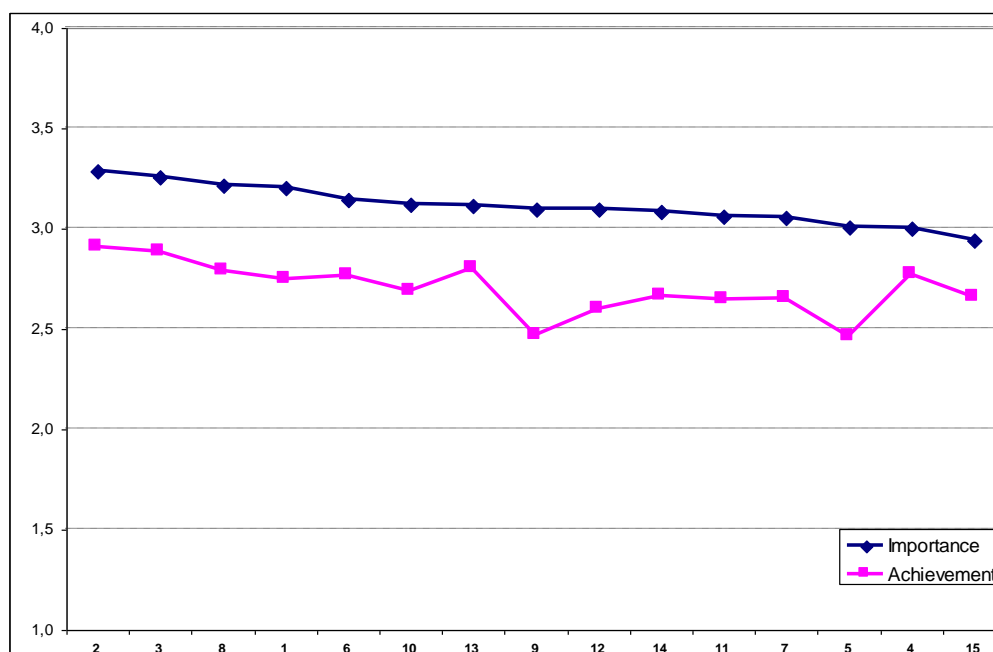


Figure 7: A line chart showing the means of evaluation of specific competences given by - Students for both importance and achievement

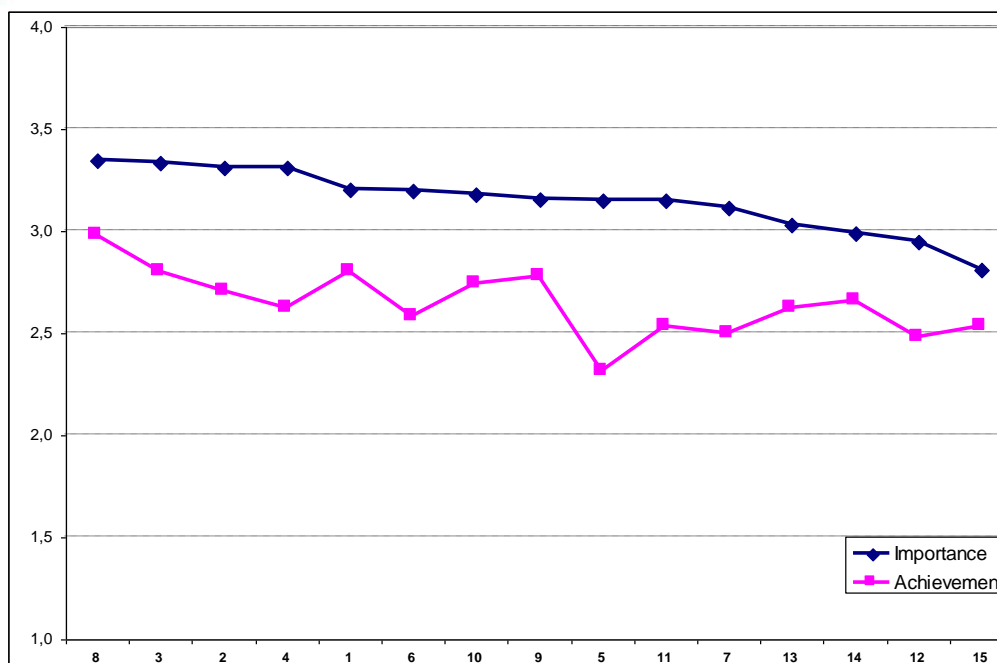


Figure 8: A line chart showing the means of evaluation of specific competences given by - Graduates for both importance and achievement

For rankings, the results were as follows:

Table 7: The lowest and highest rankings as given by stakeholders for the generic and specific competences

The Group	Competences with lowest rankings	Competences with highest rankings
Academics	<p>SC15. Ability to perform accounting and money transactions</p> <p>SC12. Ability to have knowledge and capabilities of procurement techniques</p> <p>SC14. Ability to identify the natural and cultural tourism resources</p>	<p>SC3. Ability to apply knowledge and skills in tourism jobs</p> <p>SC8. Ability to manage customers and stakeholders in English/another foreign language</p> <p>SC1. Ability to assess and understand the global and local tourism potentials.</p>
Employers	<p>SC12. Ability to have knowledge and capabilities of procurement techniques</p> <p>SC15. Ability to perform accounting and money</p>	<p>SC1. Ability to assess and understand the global and local tourism potentials.</p> <p>SC6. To effectively operate tourism companies.</p>

	transactions SC7. Ability to make effective identification and presentation of tourist environment	SC4. Ability to understand different market segments for marketing, research and communication
Students	SC12. Knowledge and capabilities of procurement techniques. SC15. Ability to perform accounting and money transactions SC11. Ability to understand the current issues in tourism and other general knowledge	SC1. Ability to assess and understand the global and local tourism potentials. SC2. Ability to demonstrate hands-on experience in real life environment SC8. Ability to manage customers and stakeholders in English/another foreign language
Graduates	SC12. Ability to have knowledge and capabilities of procurement techniques SC13. To develop knowledge of key concepts, theories and practices in the tourism activities SC15. Ability to perform accounting and money transactions	SC8. Ability to manage customers and stakeholders in English/another foreign language SC1. Ability to assess and understand the global and local tourism potentials. SC9. Ability to coordinate and networking with stakeholders.

Correlations

For correlation analyses results, it was noticed that in generic competences, Pearson's correlation coefficients were mostly between moderate and substantial (0.50- 0.70), except for the case of students vs. graduates where the coefficient was 0.3051 for the achievement scale indicating then a weak statistical relationship between the responses of these two groups. The results of correlation analyses are shown in the following tables:

Table 8: The correlation matrix of Generic Competences for the importance scale

Graduates	Students	Employers	Academics	Group
				Academics
			0.8011	Employers
		0.8608	0.7711	Students
	0.7788	0.8167	0.7610	Graduates

Table 9: The correlation matrix of Generic Competences for the achievement scale

Graduates	Students	Employers	Academics	Group
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				Academics
			0.5936	Employers
		0.6641	0.6699	Students
	0.3051	0.5110	0.6007	Graduates

The case was different though for specific competences where most of Pearson's correlation coefficients were mostly between minimal and moderate (0.30-0.50), the results of correlation analyses are shown in the following tables:

Table 10: The correlation matrix of Specific Competences for the Importance scale

Graduates	Students	Employers	Academics	Group
				Academics
			0.8481	Employers
		0.5215	0.5677	Students
	0.6440	0.8498	0.8825	Graduates

Table 11: The correlation matrix of Specific Competences for the achievement scale

Graduates	Students	Employers	Academics	Group
				Academics
			0.7998	Employers
		0.4265	0.3023	Students
	0.5112	0.4057	0.5033	Graduates

The following then can be concluded:

- There is somehow a strong linear relationship between the responses of stakeholders for importance scale for both generic & specific competences (the correlations coefficients are higher for generic competences)
- The linear relationship between the responses of stakeholders for achievement scale is weak if compared to the other scale for both generic & specific competences (the correlations coefficients are higher for generic competences)

Such results can be seen also in the following graphs:

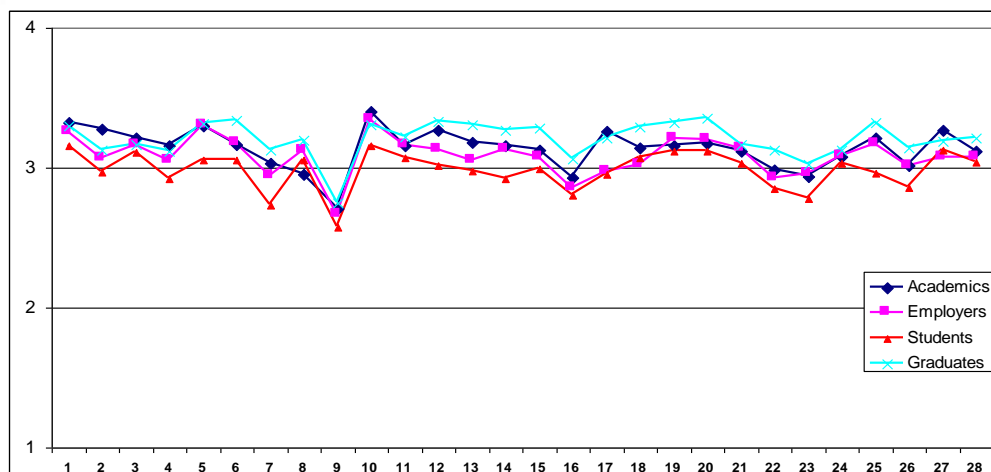


Figure 9: A line chart showing the means of evaluation of generic competences given by all stakeholders for importance

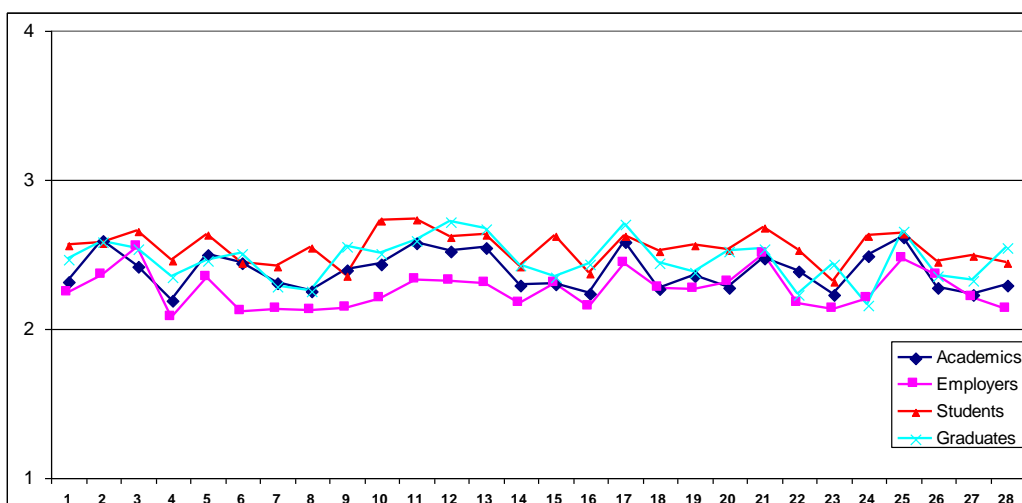


Figure 10: A line chart showing the means of evaluation of generic competences given by all stakeholders for achievement

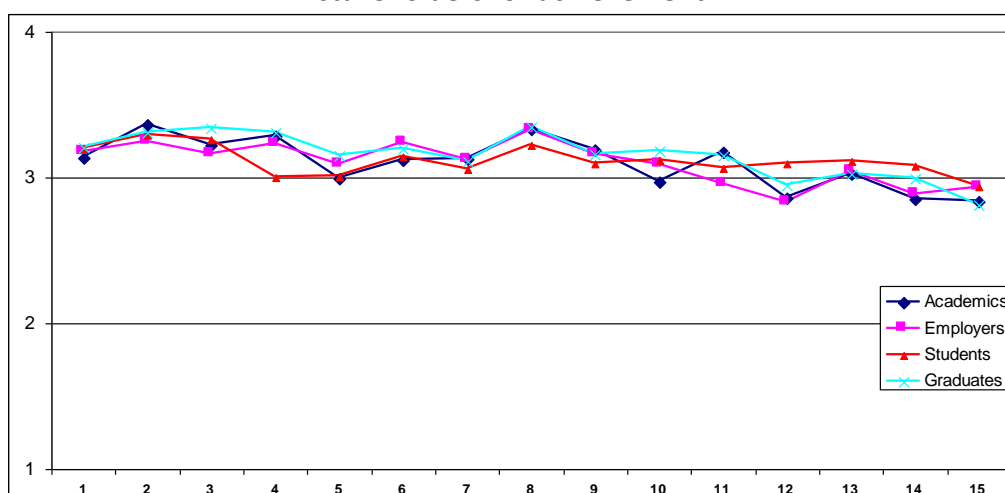


Figure 11: A line chart showing the means of evaluation of specific competences given by all stakeholders for importance

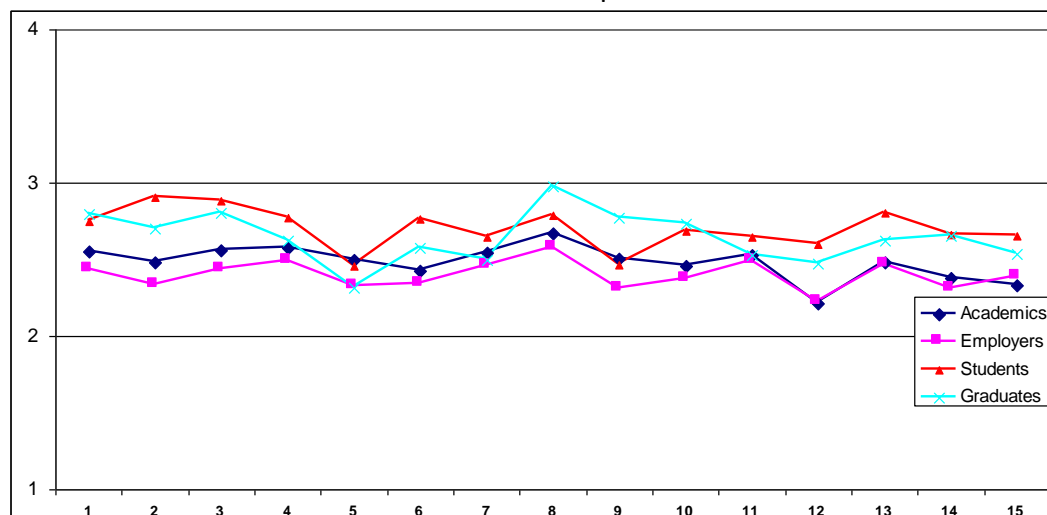


Figure 12: A line chart showing the means of evaluation of specific competences given by all stakeholders for achievement

Conclusions:

- There was a general agreement between the 4 stakeholders groups that the following generic competences are highly important if compared to others: maintaining quality of work, managing time effectively, identifying and solving problems, commitment to human rights and implementing health and safety procedures. On the other hand, the following generic competences were mostly considered as not being as important: working autonomously, empowering others, organizational skills and respect for diversity and multiculturalism.
- For achievement, it can be noticed that the 4 groups agreed on having the following generic competences mostly achieved: skills in the use of information and communication technologies, ability to maintain quality of work, commitment to human rights, ability to maintain continuous education, and ability for oral and written communication to different audiences. Whereas the following generic competences were the least in achievement: ability to lead effectively, having organizational skills, being self-motivated, making logical decisions, ability to work in an interdisciplinary team, and being assertive.
- For the importance scale of specific competences, some generic competences were considered by the 4 groups of stakeholders to be mostly needed: demonstrating hands-

on experience in real life environment, ability to apply knowledge and skills in tourism jobs and ability to manage customers and stakeholders in English/another foreign language.

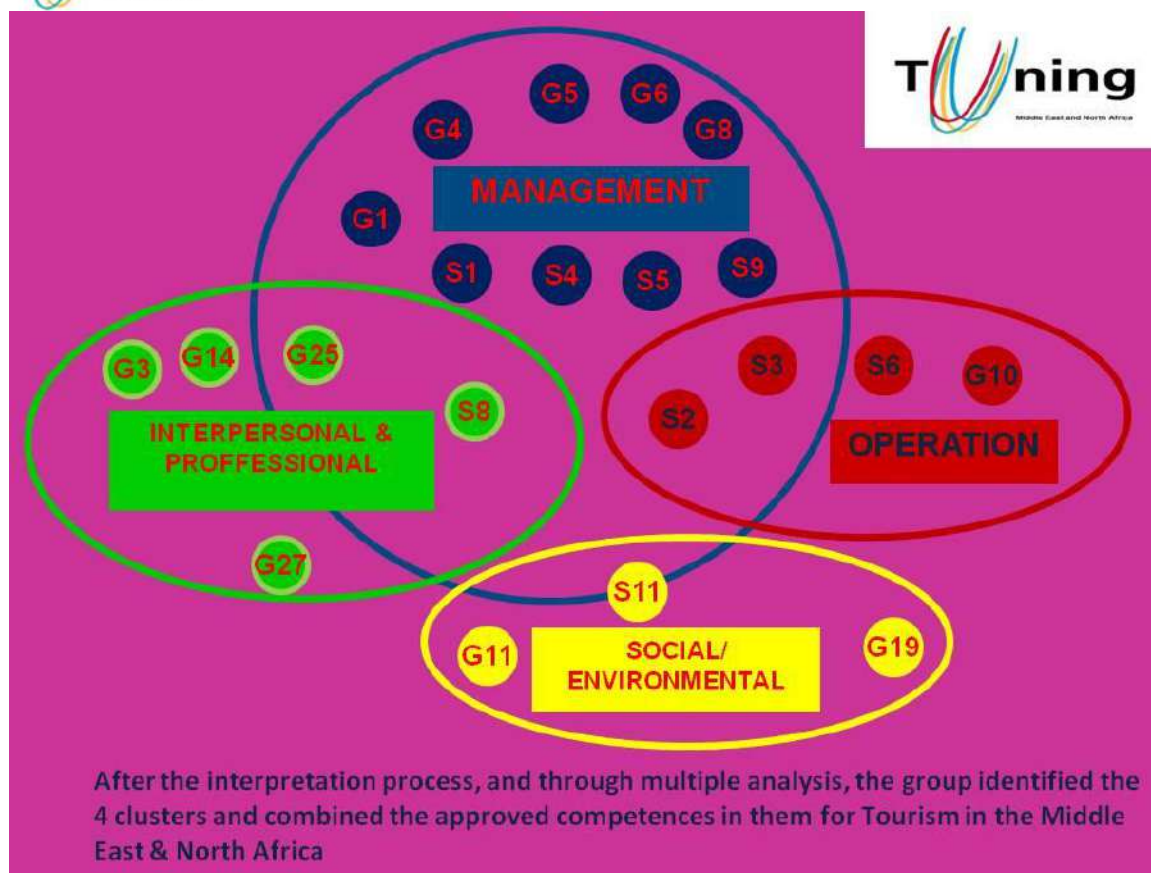
- For achievement scale, the following generic competences were perceived as being highly achieved: ability to apply knowledge and skills in tourism jobs, ability to understand different market segments for marketing, research and communication and ability to manage customers and stakeholders in English/another foreign language.
- The following competences were considered to be the least important and as being not well achieved: ability to perform accounting and money transactions, knowledge and capabilities of procurement techniques, and ability to identify the natural and cultural tourism resources.

The Meta Profile

Based on the results of the survey (ratings and rankings of competences for importance), some competences were eliminated since they had the lowest values (see previous tables of statistical results), these were:

- For Generic Competences: 7, 23, 16, 9, 22, 20, 24 and 26.
- For Specific Competences: 12, 14, 15, 13, 7, 11 and 10.

The rest of the competences were grouped into core clusters as following:



These core clusters are clarified as follows:

INTERPERSONAL & PROFESSIONAL: this core cluster focuses on the personal skills of student related to self advancement and communicating with work environment.

- G.C. 3. Maintain continuous education
- G.C. 27. Be self-motivated
- G.C. 14. Be creative and innovative
- G.C. 25. Apply information and communication technology skills
- S.C. 8. Deal with tourism stakeholders in English/another foreign language

MANAGEMENT: this core cluster includes competences related to management skills and mental activities, also different resources in the internal and external work environments

- G.C. 1. Manage time efficiently
- G.C.5. Identify and resolve problems
- G.C. 6. Make logical decisions
- G.C. 8. Lead effectively
- G.C. 4. Exercise critical thinking, analysis and synthesis
- S.C. 4. Understand different market segments
- S.C. 9. Coordinate and network with stakeholders
- S.C. 5 . Manage tourism activities in a sustainable way
- S.C. 1. Understand and assess the global and local tourism potentials

OPERATION: this core cluster deals with performance related different operations run by tourism activities

- G.C. 10. Maintain quality of work
- S.C. 2. Demonstrate hands-on experience in real life environment
- S.C. 3. Apply knowledge and skills to tourism jobs
- S.C. 6. Operate tourism organizations effectively

SOCIAL/ ENVIRONMENTAL: this core cluster focuses on social and environmental aspects affecting/affected by performance of tourism operations and activities.

- S.C. 11. Comprehend current issues in tourism
- G.C. 19. Commit to human rights
- G.C. 11. Act ethically with social responsibility

Bridging between Meta-Profile and Reality

Member universities' representatives were asked to compare their current degree programs with the final meta-profile, the results were provided through reports that included the results of these comparisons. In general, most of the competences were covered in these programs, but it was noticed that the following competences were not directly embedded if compared to others:

- Comprehending current issues in tourism
- Maintaining long life learning
- Being self-motivated
- Maintaining quality of work
- Managing time efficiently
- Dealing with tourism stakeholders in foreign language
- Making logical decisions

The following table shows the presence of meta-profile competences in the study programs mentioned above:

Table 12: Comparing Current Tourism Programs of Member Universities to Meta-Profile
(shadowed cells: the competence is embedded directly by courses of the plan; blank cells:
the competence is not directly embedded in courses of the plan)

COMPETENCES		JORDAN		LEBANON		EGYPT	Libya	PALESTINE	MOROCCO	TUNISIA
		Hashemite Uni	Yarmouk Uni	Modern Univ. for Science	Balmand Uni	Suez Canal Uni	Omar al-Mukhtar	Ahliyah Uni. College	Uni. Of Mohamed El-Bach	Univ. of Monastir
Generic Competences										
G.C. 1	Manage time efficiently									
G.C. 3	Maintain continuous education									
G.C. 5	Identify and resolve problems									
G.C. 6	Make logical decisions									
G.C.11	Act Ethically with Responsibility									
G.C. 10	Maintain quality of work									
G.C. 14	Be creative and innovative									
G.C. 19	Commit to human rights									
G.C. 27	Be self-motivated									
Specific Competences										
S.C.1	Understand and assess the global and local tourism potentials									
S.C.2	Demonstrate hands-on experience in real life environment									

S.C.4	Understand different market segments									
S.C.5	Manage tourism activities in a sustainable way									
S.C.6	Operate tourism organizations effectively									
S.C. 8.	Deal with tourism stakeholders in English/another foreign language									
S.C.9.	Coordinate and network with stakeholders									
S.C. 11.	Comprehend current issues in tourism									

Such results can be explained by the fact that MENA region (as other regions worldwide) is facing some problems concerning tourism and hospitality education:

- Tourism and hospitality are often offered by unrelated departments and unconnected courses, and in many institutions these professions are usually housed in diverse fields including geography, sociology, forestry, leisure and recreation studies, environmental studies, and development studies (Mayaka & Akama 2009). Moreover, many of the courses in hospitality and tourism programs are found in other professions and specializations within university programs (such as business and management), which makes professors in other disciplines are not aware of the scope of teaching involving tourism (Berger 2008).
- The lack of proper academic understanding and focused theoretical framework of most tourism studies, this engenders a lack of provision of clear directions in the teaching of tourism courses (Mayaka & Akama 2007).
- The lack of coordination between educational institutions and the industry; the fact that tourism and hospitality fields are applied subject areas that require the situation

where academics, students to have close links with tourism industry in the stages of curricula development, training and recruitment; we find that strategies for industry engagement in many education institutions are often haphazard and lack focus, commitment and resources (Solnet, Robinson, & Cooper 2007).

- Many tourism students (after they graduate) find themselves in tedious dead-end jobs, which do not require the education and training that they have received, and they do not see any prospects for advancement, this is due to the fact that many executives in the hospitality industry have not developed programs that help students move ahead in an orderly way (Berger 2008).
- Many tourism employers do not recognize the importance of academic education; they do not appreciate tourism education and underlying theories, framework and concepts that should guide tourism as a major social and economic global phenomenon (Zagonari 2009).
- The particular experiences that students have in their university tourism program is likely to have an effect on forming realistic expectations of careers in tourism, which is not the case on which to base their choice of studying tourism (Koyuncu et al 2008).
- The lack of both training facilities and staff in many educational institutions offering tourism and hospitality programs, most of the knowledge given to students is theoretical, while practical side is limited to field trips that are based on observation in the first place without real practicing.

After presenting the similarities and differences between the meta-profile and tourism programs by tourism SAG members, some modifications were done to this profile where its competences were renumbered and rephrased, and the final list came out to be as follows:

- G.C. 1. Manage time efficiently
- G.C. 2. Maintain long-life learning ("life-time" was rephrased)
- G.C. 3. Exercise critical thinking, analysis and synthesis
- G.C.4. Identify and solve problems
- G.C. 5. Make logical decisions
- G.C. 6. Lead effectively
- G.C. 7. Maintain quality of work
- G.C. 8. Act ethically with social responsibility
- G.C. 9. Be creative and innovative
- G.C. 10. Commit to human rights
- G.C. 11. Apply information and communication technology skills

- G.C. 12. Be self-motivated
- S.C. 1. Understand and assess the global and local tourism potentials
- S.C. 2. Demonstrate hands-on experience in tourism & hospitality activities
- S.C. 3. Apply knowledge and skills to tourism jobs
- S.C. 4. Understand different tourism market segments
- S.C. 5. Manage tourism activities in a sustainable way
- S.C. 6. Operate tourism organizations effectively
- S.C.7. Deal with tourism stakeholders in English/Foreign language
- S.C. 8. Coordinate and network with tourism stakeholders
- S.C. 9. Comprehend current issues in tourism (this one was added to other core clusters)

The tourism SAG members then worked on developing a new degree profile that is based on the new meta-profile, the followings were identified:

- Courses titles as fits competences
- Learning outcomes
- Levels

Part of the work was done in the third general meeting, the remaining part was assigned to Tourism SAG members, the learning outcomes were submitted by group members on 31st of March 2015, and the finishing of the program first draft by the coordinator was on 10th of April 2015 (This original degree profile is presented in Appendix1). There was an agreement by tourism SAG members on having this new 4 year program (2 semesters each year) to be implemented by Yarmouk University, where a workshop was conducted on May 19th & 20th to implement the Pilot Degree Programme. The first session of the workshop focused on introducing Tuning and its significance to higher education, this was followed by training on how to make and design a high quality degree program. The main task of the workshop was developing the main outline of a Tourism degree programme in Yarmouk University. This was achieved through a process where the results of the consultation and the Meta profile were discussed with faculty members, then writing tourism degree key competences and learning outcomes. The two lists of Generic and Specific competences were modified, some of these were eliminated and the final two lists became as follows:

Generic Competences of Degree Profile in Yarmouk University:

- G.C. 1. Manage time efficiently
- G.C. 2. Maintain long-life learning
- G.C. 3. Exercise critical thinking, analysis and synthesis

- G.C. 4. Identify and solve problems
- G.C. 5. Make logical decisions
- G.C. 6. Lead effectively
- G.C. 7. Maintain quality of work
- G.C. 8. Act ethically with social responsibility
- G.C. 9. Be creative and innovative
- G.C. 10. Commit to human rights
- G.C. 11. Apply information and communication technology skills
- G.C. 12. Be self-motivated

Specific Competences of Degree Profile in Yarmouk University:

- S.C.1. Understand and assess the global and local tourism potentials
- S.C.2. Demonstrate hands-on experience in tourism & hospitality activities
- S.C.3. Apply knowledge and skills to tourism jobs
- S.C.4. Understand different tourism market segments
- S.C.5. Manage tourism activities in a sustainable way
- S.C.6. Operate tourism organizations effectively
- S.C.7. Deal with tourism stakeholders in English/Foreign language
- S.C.8. Coordinate and network with tourism stakeholders
- S.C.9. Comprehend current issues in tourism

The current Yarmouk tourism degree profile was revised to accommodate the agreed competences, the levels of the agreed competences and learning outcomes were also defined (See Appendix 2).

Reflections

All universities involved in the T-MEDA project are keen to develop their tourism academic programs in a systematic manner. They realize the importance of adopting a scientific tool and technique that helps in improving the quality of tourism education in their institutions. All institutions realize that existing gap between their institutions on one part, and industry operators on the other part. Thus, the main aim of curricula development is lacking the vital contribution of stakeholders, particularly employers who better know what the industry needs.

Mostly, if not all study plans were not built based on competency analysis, however on what academic staff thinks will serve the purpose. Most of the study plans are based on

theoretical teaching with a clear lack of practical experiences on the part of teaching staff, as well as the mere absence of practical facilities and amenities. Admission procedures in some MENA region countries do not guarantee high quality candidates who are aware of the industry and willing to join its operations and build a future career (See Appendix 3).

Mutual trust between industry operators and academic institutions is missing. The importance and future perspectives of tourism education is still far below that of many other disciplines like medical science, engineering, and business administration/management. Availability of academic staff in tourism and hospitality is a major challenge facing all institutions participating in the project.

One last important thing to mention is the wide gap between performance and expected achievements. Throughout the past few years, many institutions were involved in many international projects and activities, as well as being represented in many international tourism events. This encourages many of them to learn from the global success stories and best experiences. Many individual (not institutional) attempts to modify tourism study plans to cover the main competences are witnessed, which involve industry operators in curriculum development and implementation, focusing more on developing practical skills, professional skills and foreign languages ,.....etc (See Appendix 3)

A new promising trend is the establishment of independent faculties of tourism and hospitality that gives them a better say in decisions that influence their good wills and the way they achieve the missions. The number of institutions involved in tourism and hospitality education is increasing, as well as the number of staff members joining these institutions. Competition is increasing, which is expected to improve the quality of their study plans, their implementation and quality of graduates.

Tourism SAG/ T-MEDA

April 30th 2015

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Last Modified in February, 2016

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Appendix 1: Original Degree Profile/ Developed by Tourism SAG

APPENDIX 1: NEW DEGREE PROFILE/ TOURISM SAG

Core Cluster	Generic Competence	Specific Competence	Course	Level			Learning Outcomes	Sem. & Year
				L1	L2	L3		
Social & Environmental		S.C. 9. Comprehend current issues in tourism	Contemporary Issues in Tourism & Hospitality	X			-To identify recent issues in tourism -To assess the impacts of such issues on tourism sector performance -To suggest a number of actions to deal with such issues	Y1S2
	G.C. 10. Commit to human rights		Human Rights	X			-To understand different aspects related to human rights -To relate human rights issues to the context of tourism development	Y1S1
	G.C. 8. Act ethically with social responsibility		Sustainable Tourism		X		-To understand the relationship between sustainable development and tourism -To identify different aims of sustainable tourism and policy areas required to achieve them -To understand the process of formulating a sustainable development strategy	Y2S2
			Social Responsibility	X			-To comprehend Corporate Social Responsibility (CSR) -To relate the concept of social responsibility to tourism businesses -To assess the contribution of CSR to organization performance	Y1S1

Core Cluster	Generic Competence	Specific Competence	Course	Level			Learning Outcomes	Sem. & Year
				L1	L2	L3		
Interpersonal and Professional	G.C. 2. Maintain long-life learning		Human Resources Management		X		-To identify the different responsibilities of human resources activities -To discuss different approaches to develop human resources in the organization -To understand the process of developing HR policies and procedures -To review main human resources training and development techniques	Y2S2
			Personal and Professional Project	X			-To construct a self- training and development according to selected project -To acquire the right tools to be recruited and to build professional project by the student	Y1S2

	G.C. 12. Be self-motivated		Entrepreneurship in Tourism	X			-To understand economic and social contribution of tourism enterprises. -To conceptualize and design a tourism enterprise -To illustrate the feasibility and implementation potential of the selected enterprise	Y1S2
			Internship		X		-To get practical experience in tourism enterprises -To apply professional skills in real life situations. -To demonstrate self-experience	Y2S2
			Leadership in Tourism & Hospitality			X	-To compare between leadership and management in regard to concept and skills -To recognize the traits of a leader - To differentiate between leadership theories and their influence on employee behavior	Y3S1
	G.C. 9. Be creative and innovative		Entrepreneurship in Tourism	X			-To understand economic and social contribution of tourism enterprises. -To conceptualize and design a tourism enterprise -To illustrate the feasibility and implementation potential of the selected enterprise	Y1S2
			Graduation Project			X	-To identify a research problem -To measure and analyze indicators related to research problem -To report how to deal with different aspects of a problem	Y3S2
			Internship		X		-To get practical experience in tourism enterprises -To apply professional skills in real life situations. -To demonstrate self-experience	Y2S2

			Events Management		X		-To Plan, design, and coordinate effective site and facility operations. - To apply the principles of professionalism and ethics to event management. -To create, plan, and implement effective programming for events. - To design a planning process that incorporates budgeting, project management, communication and evaluation tools.	Y2S1
	G.C. 11. Apply information and communication technology skills		Communication Skills		X		-To demonstrate effective written communication skills in tourism and hospitality. -To show effective oral communication skills. -To work effectively within groups or teams	Y2S1
			Information Technology for Tourism & Hospitality			X	-To demonstrate exceptional knowledge related to IT in hospitality and tourism business. -To demonstrate the ability to define, identify, and evaluate current IT practices in tourism and hospitality.	Y3S2
			Electronic Tourism		X		-To appreciate the role and functions of the internet and electronic distribution in tourism. -To optimize and manage tourism inventory online -To interpret various web measurement tools and their role in providing management information -To plan and implement search engine optimization and search engine marketing strategies	Y2S2
		S.C. 7. Communicating	Foreign Language (Different	X	X	X	- To understand and correctly use	Y1Y2Y

		professionally with tourism stakeholders	Levels) for Tourism & Hospitality				vocabulary/expressions used in tourism and hospitality - To demonstrate the four major skills of reading, writing, listening and speaking in these foreign languages - To correctly and professionally make conversations with different stakeholders and deal with complaints - To professionally respond to correspondences	3
			Cross-cultural Communication		X		- To use the essential principles of human communication to increase student's own effectiveness in interpersonal, small group and public speaking - To explain the importance of culture in communication and how we can communicate more effectively in a world that's becoming increasingly multicultural - To engage in a conversation that is satisfying and mutually productive - To take into consideration the existing cultural differences among stakeholders to communicate more effectively	Y2S2

Core Cluster	Generic Competence	Specific Competence	Course	Level			Learning Outcomes	Sem. & Year
				L1	L2	L3		
Management	G.C. 1. Manage time efficiently		Internship		X		<ul style="list-style-type: none"> - To respect basic time rules management and abide by them - To manage time effectively to perform assigned tasks with respect to due time. - To estimate the time needed to perform specific tasks 	Y2S2
			Graduation Project			X	<ul style="list-style-type: none"> -To identify a research problem -To measure and analyze indicators related to research problem -To report how to deal with different aspects of a problem 	Y3S2
	G.C.4. Identify and solve problems		Internship		X		<ul style="list-style-type: none"> - To identify operational problems and communicate them to the administration - To handle guest complaints and to find prompt solutions for them - To coordinate with the administration in order to solve differed problems -To get practical experience in tourism enterprises -To apply professional skills in real life situations. -To demonstrate self-experience 	Y2S2
			Research Methods		X		<ul style="list-style-type: none"> - To understand the significance of research, its types and different methods of acquiring 	Y2S1

							<ul style="list-style-type: none"> knowledge - To understand the relationship between theory and research - To prepare a research paper and make a presentation - To apply different methods of data collection - To understand ethics of scientific writing and publication 	
	G.C. 5. Make logical decisions		Financial Decision Making			X	<ul style="list-style-type: none"> -To evaluate financial and operating information for decision-making purposes. - To apply financial quantitative techniques to the analysis of financial data. - To communicate and present proposals that address financial and business issues. 	Y3S1
			Revenue Management			X	<ul style="list-style-type: none"> - To understand the multiple use of distribution channels and reservations system - To identify the business' pricing decisions and collect the market's information regarding customer behavior - To provide strategies to optimize product availability and price to maximize profit - To analyze collected data in order to make pricing decision 	Y3S1
			Human Resources Management		X		<ul style="list-style-type: none"> - To understand the employee performance management cycle & how 	Y2S2

						effective performance appraisals should be carried out - To identify various types of training methods and prepare an effective employees' training & development program based on Training Need Assessment(TNA) - To create a job description as an outcome job analysis - To establish employees' recruitment plan and apply the employee selection techniques - To assess the HR external and internal environment in order to establish the HR action plans. - To design a total compensation system as a way for retaining employees	
			Cost Control		X	- To understand methods of costing and analysis of results -To evaluate and apply cost control techniques	Y2S2
	G.C. 6. Lead effectively		Human Resources Management		X	- To understand and defend the role and value of strategic human resource management in the success of modern organizations; - To understand the process of developing HR policies and procedures - To review main human resources training and development techniques - To have the ability to formulate a recruitment and retention policy based on the	Y2S2

							<ul style="list-style-type: none"> strategic intent of a company - To Identify selection methods and design and capability to conduct a competency based interview - To conduct and evaluate performance appraisal interview 	
			Strategic Management			X	<ul style="list-style-type: none"> - To formulate a research problem and conduct the research in relationship with strategic management by combining theories and practices - To recognize the different stages of industry evolution and recommend strategies appropriate to each stage. - To appraise the resources and capabilities of the firm in terms of their ability to confer sustainable competitive advantage and formulate strategies that leverage a firm's core competencies. 	Y3S2
			Leadership in Tourism & Hospitality		X		<ul style="list-style-type: none"> - To demonstrate significant knowledge of effective leadership and teamwork strategies, management skills, and evaluation of service quality and consumer needs through investigation and practical experience. - To demonstrate techniques that contributes to a culture of 	Y3S1

							dignity and respect in the workplace. - To apply teamwork and leadership qualities in creating a productive work environment	
	G.C. 3. Exercise critical thinking, analysis and synthesis		Financial Decision Making			X	-To apply accounting techniques in dealing with uncertainty and risk in financial planning and decision-making. -To compare and contrast the main techniques used in determining cost behaviour. -To prepare, analyse and appraise key performance indicators within the hospitality/ tourism sector.	Y3S1
			Research Methods		X		- To understand the significance of research, its types and different methods of acquiring knowledge - To understand the relationship between theory and research - To prepare a research paper and make a presentation - To apply different methods of data collection - To understand ethics of scientific writing and publication	Y2S1
			Cost Control		X		- To understand methods of costing and analysis of results - To evaluate and apply cost control techniques	Y2S2
		S.C. 4. Understand different tourism market segments	Tourism Marketing		X		- To illustrate the importance of market research and	Y2S1

							marketing information systems to a market driven service organisation - To understand the basic characteristics of consumer and business buying behaviour in hospitality and tourism - To apply market segmentation, targeting and positioning techniques, creating competitive advantage	
			Consumer Behavior		X		- To understand behavior theories and the decision-making process by consumer when buying tourism product - To understand environmental factors and individual determinants affecting consumer behavior - To apply efficient marketing strategies to more effectively reach the consumer	Y2S2
		S.C. 8. Coordinate and network with tourism stakeholders	Internship		X		-To get practical experience in tourism enterprises -To apply professional skills in real life situations. -To demonstrate self-experience	Y2S2
			Graduation Project			X	-To identify a research problem -To measure and analyze indicators related to research problem -To report how to deal with different aspects of a problem	Y3S2

			Entrepreneurship in Tourism	X			-To understand economic and social contribution of tourism enterprises. -To conceptualize and design a tourism enterprise -To illustrate the feasibility and implementation potential of the selected enterprise	Y1S2
		S.C. 5. Manage tourism activities in a sustainable way	Tourism Operation Management		X		- To describe the role of operations management in the management of successful tourism organizations and destinations; - To understand the operational requirements of a range of tourism organizations; - To identify key areas of legislation and regulation that affect the tourism industry, in a range of international contexts; - To demonstrate operational planning skills of value to the tourism industry.	Y2S1
			Alternative Tourism	X			-To express the concept of sustainability in tourism. -To explain the concept alternative tourism and its types. -To distinguishes the differences and similarities between alternative tourism types and types of special interest tourism. - To assess sustainability measures in tourism	Y1S2

							activities.	
		S.C. 1. Understand and assess the global and local tourism potentials	Introduction to Tourism	X			<ul style="list-style-type: none"> - To understand different definitions of tourism and related concepts as leisure, recreation...etc - To understand evolution of tourism as a phenomenon, as well as progression of accommodations and transportation - To identify different impacts of tourism on economy, environment and societies - To identify different components of tourism systems also its different potentials - To understand different models and theories related to tourism, tourist motivation and behavior of both locals and tourists 	Y1S1
			World Tourism Geography	X			<ul style="list-style-type: none"> -To locate and identify the countries, main cities and physical features of the world continents and main regions. -To demonstrate an understanding of ethnic culture and religions of major tourism destinations. -Identify key tourism attractions from an international and global dimension. -To understand the major climatic elements that affect tourism and identify the world climatic zones and their significance for tourism 	Y1S1

			Tourism Resources and Trends	X			<ul style="list-style-type: none"> - To understand how to deal with the different available resources. - To illustrate the different new trends in the tourism industry - To understand how to plan and evaluate the plans related to resources - To construct a better knowledge of the contemporary issues in tourism 	Y1S2
			National Tourism & Heritage	X			<ul style="list-style-type: none"> - To understand the relationship between tourism, culture and heritage - To understand theories related to the consumption of heritage as a tourism attraction/product - To identify different impacts of tourism on culture and heritage - To identify different issues related to the management and development of heritage and cultural resources 	Y1S1
			Tourism Attractions Development and Management	X			<ul style="list-style-type: none"> - To highlight job specifications of the various positions within the resort departments - To emphasize the importance and need of team working amongst employees and management in different tourism attractions. - To describe the principles, methodology and practices of revenue management in 	Y1S2

							the hospitality industry	
			Hospitality Management	X			<ul style="list-style-type: none"> - To describe the composition, size, and growth of the international recreation, leisure, gaming, and conference and events sectors. -To identify the factors affecting the international recreation, leisure, gaming, and conference and events sectors. - To recognise the cohesive nature of international tourism, hospitality and the travel businesses. 	Y1S1
		S.C. 9. Comprehend current issues in tourism	Contemporary Issues in Tourism & Hospitality	X			<ul style="list-style-type: none"> -To identify contemporary issues in tourism and hospitality. -To assess the impacts of these issues on tourism and hospitality businesses. 	Y1S2

Core Cluster	Generic Competence	Specific Competence	Course	Level			Learning Outcomes	Sem. & Year
				L1	L2	L3		
Operation	G.C. 7. Maintain quality of work		Total Quality Management		X		-To understand and evaluate the main principles and practices of total quality management in a tourism and hospitality context. -To demonstrate the role of quality management in tourism and hospitality enterprises. -To evaluate and apply concepts associated with the integrated quality management of tourist and hospitality sectors.	Y2S2
			Material Management		X		- To understand different activities related to planning and administering different departments' budgets - To design and plan schedules of tasks for different departments - To administer and determine policies and actions related to purchasing - To prepare financial reports and records	Y2S2
		S.C. 2. Demonstrate hands-on experience in tourism & hospitality activities	Internship		X		-To get practical experience in tourism enterprises -To apply professional skills in real life situations. -To demonstrate self-experience	Y2S2
			Information Technology for Tourism & Hospitality			X	-To demonstrate exceptional knowledge related to IT in hospitality and tourism business. -To demonstrate the ability to define, identify, and evaluate Current IT practices in tourism and hospitality.	Y3S2
		S.C. 3. Apply knowledge and skills to tourism jobs	Internship		X		-To get practical experience in tourism enterprises -To apply professional skills in real life situations. -To demonstrate self-experience	Y2S2
			Information Technology			X	-To demonstrate exceptional knowledge	Y3S2

			for Tourism & Hospitality				related to IT in hospitality and tourism business. -To demonstrate the ability to define, identify, and evaluate current IT practices in tourism and hospitality.	
			Etiquette & Protocol for Tourism & Hospitality		X		-To understand the universal principles of protocol, etiquette, courtesy and manners, -To navigate and manage interpersonal dynamics in important encounters -To display appropriate international business etiquette in different contexts. -To interact respectfully with people from different cultures, nations and regions	Y2S1
		S.C. 6. Operate tourism organizations effectively	Tour Operations/ Travel Agencies Management		X		- To understand the role of travel and tour operators in tourism business - To design and prepare tour packages - To advise the clients about travel issue including required documentation and financial matters - To perform the price calculation with its corresponding payment policies	Y2S1
			Tourism Legislations		X		-To recognize the public organization of the tourism sector at the international and local level, together with the principles of the international laws regulating the tourism sector. -To evaluate the different administrative models of organization in the tourism sector at the local level. - To analyze general principles of tourism laws and legal regulations related to local tourism. - To describe the practical application of legislation within the tourism sector.	Y2S1
			Events Management		X		- To understand the structure of the conferences and conventions industry - To understand the dynamics, strategies, tactics of events management. - To identify different kinds of events - To define the different players, suppliers,	Y2S1

							and public of events. - To identify the different customers of the events products . - To organize a conference or a convention	
		S.C. 9. Comprehend current issues in tourism	Contemporary Issues in Tourism & Hospitality	X			-To identify recent issues in tourism -To assess the impacts of such issues on tourism sector performance -To suggest a number of actions to deal with such issues	Y1S2

Appendix 2: Implementation of Degree Profile of Yarmouk University

- **Overview about the faculty and Current Programs**
- **Course Plan and New Degree Profile**

Task 1

Yarmouk University – Jordan

Khalid Magablih

Faculty profile

The faculty of Tourism and Hotel Management was established at Yarmouk University in the academic year 2011-2012 as part of the university orientation to make available the necessary qualified and specialized manpower that contributes to enhance the economic and social development in the Kingdom. It also aims at supporting the tourism service quality locally and regionally through a qualified and well trained pool of staff in the tourism sector, as an attempt to help achieving the objectives of the national tourism successive strategies that mainly aim at strengthening the contribution of the tourism sector and its competitiveness. The Faculty encompasses two departments: The Tourism and Travel Department, and the Hotel Management Department.

Department of Travel and Tourism

The department of Travel & Tourism has been established in the academic year 2011-2012 within the faculty of Tourism and Hotel Management. The department offers two academic programs: A bachelor in tourism management and a master in tourism.

In accordance with the new vision and mission of the faculty, the Department of Tourism and Travel is fully aware to the fast development around us; therefore it works to revise and design its plans to meet the tourism labor market demands for qualified professionals.

The Tourism Department offers an M.A in tourism which is considered as the only tourism graduate program in Jordan. The department also offers a B.A in Tourism Management that aiming at qualifying young pioneers who are well qualified in theory and practice.

The first batch in Hotel Management was admitted in the academic year 2011-2012 as a response to the vertical and horizontal expansion in hotels and hospitality facilities locally and regionally. It aims at meeting the ever increasing needs of the tourism services and facilities and the derived need for qualified manpower in the different hospitality fields in an attempt to enhance the image of Jordan as an attractive tourist destination and enhance developing tourism orientation and growth in the neighboring countries. The study plan is unique in focusing on foreign languages, and the theoretical and practical knowledge and skills necessary for employees to ensure a competitive quality of services to local and international guests.

Our cutting-edge, innovative four- year curriculum offers a fine balance between academic knowledge and practical application. It provides a broad coverage of multi-dimensional hospitality education, including hospitality and restaurant management, food production and service, event management, catering, marketing and financial decision making in hospitality, just to name a few.

We offer students a variety of opportunities to get involved in faculty activities and events, therefore building a sense of pride among them. These opportunities allow our students to practice while learning. Students may choose to study away at one of our exchange partner institutions. We will continue to develop more exciting industry and international opportunities for our students. We take pride in serving the educational needs of our students and fulfilling the industry needs through a solid network of relations with esteemed educational institutions and industry professionals. We are dedicated to furthering our pride with our vision and mission to develop leaders of next generation. Thus, our faculty is probably unique in appointing an industry liaisons officer who's responsible for bridging the gap between the academic and industry needs.

Admission requirements

One of the main challenges facing the faculty is the uniform admission system imposed by the MOHE in Jordan, where the faculty has no say in selecting its candidates. Currently, there are no selection criteria for our students except their own choice of joining the offered programs, as well as their high school grades.

The faculty hosts 194 students in the BA in tourism and 164 students in the BA in hotel management, and 43 students at the MA in tourism program. (rolling numbers). This is nearly the maximum capacity allowed for the faculty in its existing programs and as per the regulations of the accreditation commission in the Kingdom.

The faculty has 13 academic staff members and 10 administrative and technical staff.

Employability

Most of our graduates get job opportunities in Jordan and in the neighboring gulf countries at the entry level, and move fast towards the supervisory and managerial levels in many cases. As most of the travel agencies in Jordan are small ones and represent family businesses, a few find managerial positions. Thus the withdrawal rate is high because of the less attractive jobs and low salaries in the industry.

Industry relation

One of the unique features of the faculty is the availability of industry relations officer, who is responsible for developing better professional relationship with stakeholders and enhancing it over time. That was simply interpreted in the career day the faculty organized for the first batch of its graduates and the many MoUs signed between the faculty and tourism stakeholders for training and hiring its students and graduates. The faculty organizes an international conference each year, where close partnership occurs between the faculty and the industry, whether public or private.

Program profile

The BA in tourism management is a four year program of 132 credit hours (one credit hour equals 48 contact hours). These are divided into five main themes: tourism operations, interpersonal and professional skills, managerial skills, local environment and ancillary subjects.

The study plan is divided mainly into three main categories: university requirements (20%), Faculty requirements (14%) and specialization requirements (66%). English is

the main teaching language. Practical courses compose around (35%) of the total tourism courses.

The study plan reflects the faculty mission of creating vertical and horizontal interaction and integration between the different programs, where you find any program is well represented in the other ones.

Link to the meta-profile

The program and study plan was established mainly to fulfill the industry need for qualified tourist guides and based on the understanding of the staff members of what a tourist guide should be and therefore what courses should be taught. In 2011, new regulations of the national accreditation commission that entails restricting the specialization fields in tourism and hospitality to: 1- Tourism managements, 2- hotel management and 3- events management. Thus the title of the program has been modified to become tourism management instead of tour guiding without any major changes in its contents.

Neither the main competences and learning outcomes were clearly stated, nor the main stakeholders were consulted.

Some of the general competences were highly focused and fully covered like identify and solve problems, make logical decisions, lead effectively, act ethically with social responsibility, and apply information and communication technology skills. On the other hand, many other general competences were not covered like manage time efficiently, maintain long-life learning, exercise critical thinking, analysis and synthesis, maintain quality of work, be creative and innovative, commit to human rights, and be self-motivated.

Likewise, specific competences like understand and assess the global and local tourism potentials, apply knowledge and skills to tourism jobs, manage tourism activities in a sustainable way, deal with tourism stakeholders in English/Foreign language, and understand different tourism market segments, and comprehend current issues in tourism were covered, while specific competences like demonstrate hands-on experience in tourism & hospitality activities, operate tourism organizations effectively, coordinate and network with tourism stakeholders were not dealt with. No doubt this created a gap between what the program aims to at one hand, and its output on the other hand.

New Degree Profile

After Yarmouk University was selected to implement the tourism program in the third general meeting, a workshop was organized by the project management to help staff members develop a new degree profile based on the Tuning process and Meta profile. The new degree profile was proposed by the Faculty staff members and committees to mainly include the following competences, learning outcomes and courses. This is expected to improve the quality of the program and its employability, its competitiveness and industry relations.

Proposed Study Plan

In order for students to graduate in BA tourism management, they should pass 132 credits. The programme is divided into the following requirements:

- University requirements: 27 credits (12 compulsory and 15 elective).
- Faculty requirements: 18 credits (compulsory).

- Major requirements: (87 credits of which 81 credits compulsory and 6 credits elective).

The old study plan was all theoretical , while the amended one includes both theoretical (65%) and practical courses (35%) to enhance the employability of our graduates

It includes the following courses:

A- Faculty Requirements : (15) credit hours

Course No.	Course title	Credit hours
TM 100	English for tourism and hospitality	3
TM 101	Introduction to int. tourism	3
HM 101	Introduction to int. hospitality	3
TM 102	Tourism in Jordan	3
TM 105	Research Methods	3

B- Compulsory courses (81 credit hours)

Course No.	Course title	Credit hours	
		Theoretical	Practical
TM 103	Jordan Archaeology over Ages	3	
TM 201	Advanced English for Tourism (1)	3	
TM 202	Managing Travel Agencies	3	
TM 250	Geography of Tourism	3	
TM 288	Alternative Tourism Patterns	3	

TM 293	Tourism Statistics	3	
TM 301	Advanced English for Tourism (2)		6
TM 305	Tourism Information System		6
TM 310	Tour Guiding	3	
TM 330	Tourism and Local Communities	3	
TM 350	Internship (1)		12
TM 353	E-Tourism	3	
TM 384	Destination Management	3	
TM 385	Marketing for Tourism & Hospitality	3	
TM 391	Tourism Legislations & Ethics	3	
TM 433	Strategic Tourism Planning	3	
TM 436	Sustainability in Tourism & Hospitality	3	
TM 450	Internship (2)		12
TM 485	Consumer Behaviour in Tourism & Hospitality		6

TM 495	Graduation Project		6
HM 382	HRM in Tourism and Hospitality	3	
HM 389	SMEs in Tourism and Hospitality	3	
HM 487	Financial Decisions in Tourism & Hospitality	3	
HM 489	Quality Management in Tourism & Hospitality	3	

C- Elective Courses (6 credit hours) to be selected among the following:

Course No.	Course title	Credit hours	
		Theoretical	Practical
TM 107	Principles of Tourism Management	3	
TM 209	Intercultural Communication in Tourism & Hospitality	3	
TM 230	Tourism and the Media	3	
TM 302	French for Tourism & Hospitality	3	
TM 303	French for Tourism & Hospitality		6
TM 380	Social Media in Tourism & Hospitality		6

TM 395	Marketing Communication in Tourism	3	
TM 401	Museum Studies	3	
TM 416	Managing Tourism Transportation	3	
TM 417	Airport Management	3	
TM 490	Special Topics in Tourism & Hospitality	3	
HM 220	Advanced Skills in Tourism & Hospitality	3	
HM 319	Events Management	3	
HM 488	Revenue Management	3	

This proposed study plan, which is expected to be implemented with effect from February 2016, covers all general and specific competences. Learning outcomes have been identified for each course in order to facilitate accomplishing its goals and evaluating its performance.

The New Degree Profile of Yarmouk University

GC	COMPETENCES	COURSES	C/E	CK LEVEL			LEARNING OUTCOMES
	S.C.1. Understand and assess the global and local tourism potentials	TM101Introduction to international tourism		1			<ul style="list-style-type: none"> - Understand different definitions of tourism and related concepts as leisure, recreation...etc - Understand evolution of tourism as a phenomenon, as well as progression of accommodations and transportation - Identify different impacts of tourism on economy, environment and societies - Identify different components of tourism systems also its different potentials
		HM101: Introduction to international hospitality industry		1			<ul style="list-style-type: none"> - Describe the composition, size, and growth of the international recreation, leisure, and events sectors. -Identify the factors affecting the international recreation, leisure, gaming, and conference and events sectors. - Recognise the cohesive nature of international tourism, hospitality and the travel businesses.
		TM 102: Tourism in Jordan		1			<ul style="list-style-type: none"> - Comprehend the tourism business environment in Jordan. - Understand the main elements of the national tourism product and its development. - Understand the national tourism planning and development strategies and policies. - Identify the main stakeholders in the sector and their roles.
		TM 103: Jordan archeology over ages		1			<ul style="list-style-type: none"> - Understand the archeological development in Jordan throughout the past periods and civilizations. - Identify the main archeological sites of each civilization. - Identify how to preserve and use the archeological and cultural resources for tourism
543948-TEMPUS-1-2013-1	ES-TEMPUS-JPCR						<ul style="list-style-type: none"> - Identify the main archeological sites of each civilization. - Identify how to preserve and use the archeological and cultural resources for tourism

						development.
		TM 250 Tourism geography			2	<ul style="list-style-type: none"> -Locate and identify the countries, main cities and physical features of the world continents and main regions. -Demonstrate and understand the ethnic culture and religions of major tourism destinations. -Identify key tourism attractions from an international and global dimension. -Understand the major climatic elements that affect tourism and identify the world climatic zones and their significance for tourism
		TM 401: Museum studies	E		2	<ul style="list-style-type: none"> - Comprehend the types and functions of museums. - Understand the role of museums in persevering the archaeology and heritage and promoting the socio-economic development of local citizens. - Learn the effective techniques of museum planning, development and marketing.
		TM 391: Tourism legislation & ethics				<ul style="list-style-type: none"> - Recognize the public organization of the tourism sector at the international and local level, together with the principles of the international laws regulating the tourism sector. -Evaluate the different administrative models of organization in the tourism sector at the local level. - Analyze general tourism laws and legal regulations related to local tourism activities. - Evaluate the influence of tourism legislation within the tourism sector.
	S.C.2. Demonstrate hands-on experience in tourism & hospitality activities	TM 495: Graduation project				<ul style="list-style-type: none"> -Identify a research problem and objectives, - Develop a research design appropriate to deal with a research problem. - Analyze data and report findings

		TM 350: Internship I					<ul style="list-style-type: none"> - Respect work rules and abide by them - Manage time effectively to perform assigned tasks with respect to due time. - Learn basic personal and professional skills in a real work life.
G.C. 4. Identify and solve problems		TM 450: Internship II					<ul style="list-style-type: none"> - Identify operational problems and communicate them to the administration - Handle guest complaints and to find prompt solutions for them - Coordinate with the administration in order to solve differed problems - Get practical experience in tourism enterprises - Apply professional skills in real life situations. - Demonstrate self-experience
G.C. 11. Apply information and communication technology skills		TM 305: Tourism information systems					<ul style="list-style-type: none"> - Demonstrate exceptional knowledge related to IT in hospitality and tourism business. - Demonstrate the ability to define, identify, and evaluate current IT practices in tourism and hospitality.
G.C. 6. Lead effectively		TM310: Tour guiding					<ul style="list-style-type: none"> - Realize the different cultures and needs. - Apply organazional and leadership skills. - Demonstrate professionalism in destination promotion.
G.C. 3. Exercise critical thinking, analysis and synthesis		TM 105: Research methods for tourism & hospitality					<ul style="list-style-type: none"> - understand the significance of research, its types and different methods of acquiring knowledge - understand the relationship between theory and research - prepare a research paper and make a presentation - apply different methods of data collection - understand ethics of scientific writing and publication

	S.C.3. Apply knowledge and skills to tourism jobs	TM 202: Managing travel agencies business					<ul style="list-style-type: none"> - Describe the role of operations management in the management of successful tourism organizations and destinations; - Understand the operational requirements of a range of tourism organizations; - Identify key areas of legislation and regulation that affect the tourism industry, in a range of international contexts; - Demonstrate operational planning skills of value to the tourism industry.
GG.C. 6. Lead effectively		TM 433: Strategic tourism planning					<ul style="list-style-type: none"> - Formulate a research problem and conduct the research in relationship with strategic management by combining theories and practices - Recognize the different stages of industry evolution and recommend strategies appropriate to each stage. - Appraise the resources and capabilities of the firm in terms of their ability to confer sustainable competitive advantage and formulate strategies that leverage a firm's core competencies.
G.C. 10. Commit to human rights		TM 382: HR in tourism & hospitality					<ul style="list-style-type: none"> - Understand the human resources functions and the process of developing HR policies and procedures. - Review main human resources training and development techniques <p>Have the ability to formulate a recruitment and retention policy based on the strategic intent of a company.</p>
G.C. 12. Be self-motivated		HM389: SMEs in tourism & hospitality					<ul style="list-style-type: none"> - Understand economic and social contribution of tourism enterprises. - Conceptualize and design a tourism enterprise. - Illustrate the feasibility and implementation

							potential of the selected enterprise. - Demonstrate the ability to promote tourism and hospitality enterprises.
		TM 417: Airport management	E				- Identify the functions and services of airports. - learn how to better deal with passengers. - Understand the ticketing and boarding process. - Understand the effective management of airports.
		HM 220: Advanced skills in tourism & hospitality	E				- Understand the universal principles of protocol, etiquette, courtesy and manners, - Navigate and manage interpersonal dynamics in important encounters - Display appropriate international business etiquette in different contexts. - Interact respectfully with people from different cultures, nations and regions
G.C. 7. Maintain quality of work		TM 110: Communication skills in tourism & hospitality					- Demonstrate effective written communication skills in tourism and hospitality. -Show effective oral communication skills. - Work effectively within groups or teams
G.C. 1. Manage time efficiently		TM310: Tour guiding					- Learn how to design and implement a tour. - demonstrate the effective time management of the tour.
G.C. 11. Apply information and communication technology skills		TM353: e- Tourism					-To appreciate the role and functions of the internet and electronic distribution in tourism. -To optimize and manage tourism inventory online - interpret various web measurement tools and their role in providing management information -plan and implement search engine optimization and search engine marketing strategies
		HM 487: Financial decisions in tourism & hospitality					- Apply accounting techniques in dealing with uncertainty and risk in financial planning and

							<p>decision-making.</p> <ul style="list-style-type: none"> - Compare and contrast the main techniques used in determining cost behaviour. - Prepare, analyse and appraise key performance indicators within the hospitality/ tourism sector.
G.C. 7. Maintain quality of work		HM 489: Quality management in tourism & hospitality					<ul style="list-style-type: none"> - comprehend the concept and development of TQM. - Understand the role of TQM in tourism and hospitality. - review how TQM contributes to maintaining quality of work in tourism and hospitality businesses.
G.C. 9. Be creative and innovative		HM 488: Revenue management	E				<ul style="list-style-type: none"> - Review the main applications and aspects of revenue management. - Apply the concept of revenue management to hospitality operations. - demonstrate how revenue management contribute to the competitiveness of hospitality businesses.
		TM395: Marketing communication in tourism	E				<ul style="list-style-type: none"> - Understand the concepts and development of marketing and marketing communications. - Understand the elements, tools and applications of communication in tourism and hospitality. - Ability to propose effective and competitive marketing communication plan.

**Appendix 3: Tourism Job Descriptions in MENA Countries
(Legislations & Profession Codes) and Competences
developed by Tourism SAG of Tuning Middle East and North
Africa (T-MEDA) Project**

Job Descriptions as Stated by Tourism & Hospitality Legislations and Profession Codes in Some MENA Region Countries+ Bridging between Competences and Jobs Requirements

As in many regions worldwide, the tourism and hospitality education in MENA region is facing the problem of mismatch between the outputs of tourism educational institutions and expectations of tourism employers. This is due to different factors such as: lack of qualified academic staff in tourism and hospitality as a new discipline in many countries, less independence of tourism and hospitality programs that are affiliated to administrative science, archaeology, geography, ...etc., having professions usually housed in diverse fields including geography, sociology, forestry, leisure and recreation studies, environmental studies, and development studies (Mayaka & Akama, 2007); teaching courses of hospitality and tourism programs by other professionals within university programs (as in business and management), who are not necessarily aware of the scope of teaching involving tourism (Berger, 2008); a lack of provision of clear directions in the teaching of tourism courses due to absence of focused theoretical framework of most tourism studies (Mayaka & Akama, 2007); the lack of coordination between educational institutions and the industry in the stages of curricula development, training and recruitment, strategies for industry engagement in many education institutions are often haphazard and lack focus, commitment and resources (Solnet et al, 2007); also not providing students with appropriate and sufficient training during study period, where in many cases practical side is limited to short lab/simulator sessions or field trips that are based on observation in the first place without real practicing in tourism enterprises. Mostly important, the lack of relevant measures of performance of tourism graduates in their careers, whether by educational institutions or public sectors is another major issue since the outcomes of educational programs are not evaluated for suitability and quality, lack of in campus training facilities, the seasonality of the tourism business and its influence of workforce stability, and the low attractiveness of tourism and hospitality jobs relating mainly to the work environment and low salaries. Such measures come usually in the form of job descriptions; the lack of clear job descriptions with definite occupational tasks in most of MENA countries is affecting

the quality of university programs; these are mostly found in the form of legislations' articles and/or profession codes in this region.

The countries of MENA regions vary in having formally declared tourism and hospitality employment legislations or profession codes, of which some are extensive (as in the case of Tunisia) where required knowledge and tasks are clearly stated, others focus mainly on experience required and manager duties (as in the case of Jordan, Lebanon and Egypt), and some do not have any of these jobs descriptions formally published, but a focus is given to other aspects as geographical distribution and obtaining permits (as in the case of Libya). It seems that the availability and enforcement of job descriptions depends to a great extent on the priority given to the tourism industry as well as its contribution to the local economy.

For those countries having profession codes or legislations, there is a concentration on some job opportunities as those in tour operating and travel agencies, hotels, restaurants, and tour guiding; while jobs in events management, handicrafts, sites and bureaus management and tourism transportation are not given the same concern. Some MENA countries have already developed higher education accreditation standards (as in the case of Jordan) where knowledge disciplines and training requirements are clearly stated. A job description is important since it identifies the physical and mental requirements necessary for and specific to the job, and is considered as a basic performance criteria. This written statement should include the following components: title, purpose, location, conditions, required knowledge, skills and qualifications, tasks, authority career path in the hierarchy and performance standards to be met (al-Hajji, 2011). When job descriptions are properly designed they then ensure individuals motivation and capability of performing jobs (Lawler, 1994). Though, job descriptions are criticized for several reasons; they focus more on the way job is done rather than how staff can contribute to the establishment, they are not flexible to change in work requirements, and they won't easily allow for comparison of creativity among staff (Hawkes, 2014). This initiated the use of competency-based approach by organizations where they can take the benefit of a more flexible workforce with the skills required for successful performance, especially with the high competitiveness witnessed among these organizations, moreover, since competency approach main focus is on individuals' skills and potential, then organizations following it would be highly attractive to individuals seeking out learning and growth opportunities (Lawler, 1993). According to Boyatzis (1982, 21) a

competency is “an underlying characteristic that could be a motive, trait, skill, an aspect of their self-image or social role, or body of knowledge which they use” (as cited by Izquierdo et al, 2005, P.3).

Since the main aim of **Tuning Middle East and North Africa (T-MEDA)** project is facilitating comparability and compatibility between different universities in the Middle East and North Africa by implementation and assessment of new programs based on developing competencies, followed then by continuous improvement and enhancement for them to assure quality of educational outcomes; it becomes important then to evaluate the significance and contribution of current job description in MENA countries to the creation and design of good quality educational tourism & hospitality programs, also the potential of benefiting from competences developed by the tourism SAG in the project. This will be achieved through a comparison between these two approaches for jobs of tour operators/ travel agents, hoteliers, and tour guides.

Job descriptions of tourism & hospitality careers are derived from the following sources:

1- Lebanon

- Decree 4216 of Travel Agencies (which was promulgated in 1972 and partially modified in 1996)
- Decree No 11576 of 27/12/1997; No.7 of Decree No 15598/70 of Tour Guides

2- Jordan

- Legislation (14/1996)+(11/2005) of Travel Agencies
- Legislation (34/1998) of Tour Guides

3- Egypt

- Legislation 38/1977 of Travel Agencies
- Legislation 121/1983 of Tour Guides

4- Tunisia

- Travel Agency Manager: Tourism Professions Code 1211.02:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code1211.02Ar.mht>
- Travel Agents Assistants: Tourism Professions Code 3414.01:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code3414.01Ar.mht>
- Ticket Travel Agents: Tourism Professions Code 3414.01:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code3414.01Ar.mht>

- Home Travel Agents: Tourism Professions Code 5111.02:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code5111.02Ar.mht>
- Tour Guides: Tourism Professions Code 5113.00:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code5113.00Ar.mht>
- Hotels/ Accommodations (large hotel unit) General Managers: Tourism Professions Code 1225.01:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code1225.01Ar.mht>
- Hotels/ Accommodations Assistant Managers: Tourism Professions Code 3439.00:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code3439.00Ar.mht>
- Accommodations Receptionists: Tourism Professions Code 4222.01:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code4222.01Ar.mht>
- Hotels/ Accommodations Hosting Directors (large hotels) : Tourism Professions Code 1225.03:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code1225.03Ar.mht>
- Restaurants/Bars/Cafes Owners+Agents: Tourism Professions Code 1315.01:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code1315.01Ar.mht>
- Hotel Reception Cashiers: Tourism Professions Code 4211.01:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code4211.01Ar.mht>
- Hotel Sales Managers: Tourism Professions Code 1225.02:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code1225.02Ar.mht>
- Small Hotel Managers/ Agents: Tourism Professions Code 1315.02:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code1315.02Ar.mht>
- General Hotel Housekeepers: Tourism Professions Code 5124.02:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code5124.02Ar.mht>
- Caretakers Hotels: Tourism Professions Code 4224.00:
<http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code4224.00Ar.mht>

A comparison between Job Descriptions in some MENA Countries (Legislations & Profession Codes) and Competences developed by Tourism SAG of Tuning Middle East and North Africa (T-MEDA) Project

Occupation	Source/ Country	Definition	Requirements /Conditions	Tasks	Competences of Project that are covered in the Job Description or Prof. Code
Travel Agencies Managers	Lebanon (Decree 4216 which was promulgated in 1972 and partially modified in 1996)	Travel agencies: These agencies are defined as commercial enterprises that sell tickets for individuals and groups on transport companies that work in Lebanon or abroad. These agencies are authorized to conduct the following operations: sale of tickets or vouchers, organizing trips for individual or groups. These are classified into 3 categories: Category 1: 1- Selling and obtaining travel tickets 2- Organizing individual and group (inbound & outbound)	For the owners or managers of these agencies, they should have the following: - For category 1 agencies: they should have a minimum work experience of 5 years in this agencies' category or a diploma in tourism from an approved establishment in addition to 2 years of work experience - For category 2 agencies: they should have a	1- Selling and issue of travel tickets 2- Organizing individual and group (inbound & outbound) trips 3- Renting Cars 4- Selling events tickets 5- Money exchange 6- Completing Insurance and Visa procedures 7- Reservations of hotels and other types of accommodations 8- Selling and buying memorial stamps + tourism publications	GC25. Skills in the use of information and communication technologies GC17. Search for information from a variety a sources SC10. financially manage tourism services SC9. coordinate and networking with stakeholders

		trips Category 2: Organizing individual and group (inbound & outbound) <u>land</u> trips Category 3: Renting Cars with no drivers	minimum work experience of 3 years in this agencies' category or a diploma in tourism from an approved establishment in addition to 2 years of work		
Travel Agencies Managers	Jordan Legislation (14/1996) (11/2005)	Types of Travel agencies in Jordan (Article 3): 1- Group A: Inbound, Outbound and Domestic Tours 2- Group B: Inbound Tours 3- Group C: outbound Tours and selling trips	1- Must be Jordanian 2- Does not have a criminal history record. 3- Should have a work experience in travel and tourism not less than: a. 4 years if he/she has a BA degree b. 6 years if	1- Selling trips and tickets to tourists and travelers in cooperation with transportation companies. 2- Working with rent a car offices and tourism transportation companies to offer services to tourists. 3- Reservation of hotels. 4- Selling cultural events tickets. 5- Obtaining visas to travelers. 6- Finalizing procedures of travelers insurances for luggage. 7- Supplying tourist and travelers with information about destinations and services.	GC25. Skills in the use of information and communication technologies GC17. Search for information from a variety a sources SC10. financially manage tourism services SC9. coordinate and networking with stakeholders SC8. manage customers and stakeholders in English/another foreign language GC13. Communicate in a second language

		organized by Group (A) Offices.	<p>he/she has community college diploma</p> <p>c. 8 years if he/she has a high school certificate</p> <p>d. Using fluently at least one foreign language</p> <p>e. Signing a work contract with the owner of the agency for one year minimum</p>		
Travel Agencies Managers	Egypt Travel agencies Legislation 38/1977	<p>Travel agencies are those establishments running all or some of the following activities:</p> <p>1- Organizing group or individual inbound or outbound Egypt</p>	Any travel agency general manager should have an experience not less than 10 years (if he/she has a diploma), worked during 4 of them as a director or manager in tourism	Not stated in the reference	Cannot be compared to competencies

		<p>according to planned programs including transportation , accommodati ons and other services (Type A agencies)</p> <p>2- Selling and issue of travel tickets as well as facilitating luggage movement, also booking of different means of transportation , also acting agents on behalf of different transportation companies (aviation, sailing... etc) (Type B agencies)</p> <p>3- Operating and using different means of</p>	<p>or civil aviation</p> <p>In the case of having no diploma, the work experience should not be less than 15 years, and worked during 6 of them as a director or manager in tourism or civil aviation</p> <p>For branch manager, he/she should have an experience not less than 2 years (if he has a diploma), if not: the work experience should not be less than 5 years</p> <p>For holders of BA degree in tourism, the work experience required can be 4 years less</p>		
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		transportation for the movement of tourists. (Type C agencies)			
Travel Agencies Managers	Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Cod e1211.02Ar.mht	Not stated in the reference	<ol style="list-style-type: none"> 1- Knowledge of all operations carried out by the staff as selling tickets, accounting,... etc 2- Knowledge of legislations and regulations of different tourism activities 3- Knowledge of administrative and financial management activities 4- Mastering 	<ol style="list-style-type: none"> 1- Managing and controlling different activities of the agency 2- Establishing and managing budgets 3- Supervising and managing staff 4- Promoting and marketing the different products of the agency 5- Sourcing and developing products by liaising/contracts with service providers as tour operators, accommodations, transport companies, insurance companies.....etc 6- Daily monitoring of revenues and expenditures 7- Ensuring the quality of services provided to clients 	<p>SC6. effectively operate tourism companies</p> <p>SC10. financially manage tourism services</p> <p>GC7. Work in an interdisciplinary team</p> <p>GC8. Lead effectively</p> <p>SC4. understand different market segments for marketing, research and communication</p> <p>SC1. assess and understand the global and local tourism potentials</p> <p>SC15. perform accounting and money transactions</p> <p>GC10. Maintain quality of work</p> <p>GC25. Skills in the use of information and communication technologies</p> <p>SC8. manage customers and stakeholders in English/another foreign language</p> <p>GC13. Communicate in a</p>

			information technology and relevant software 5- Knowledge of at least two foreign languages		second language
Travel Agents Assistants	Tunisia Jobs Tourism Professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Cod e3414.01Ar.mht	Not stated in the reference	1- Knowledge of the Traveler's Cycle of Service and different stages of travelers stay 2- Knowledge of all operations carried out by the staff 3- Knowledge of legislations of different tourism activities 4- Mastering information technology	1- Plan and organize trips. 2- Research and calculation of costs of travel/tour packages 3- Planning and organizing bookings in accommodations 4- Giving recommendations and travel advice to clients 5- Taking the responsibility of travelers during their stay. 6- Developing and designing travel packages to meet the demands of clients 7- Handling and maintaining files of different service providers (accommodations, restaurants, museums, destinations...etc)	SC10. financially manage tourism services GC7. Work in an interdisciplinary team GC8. Lead effectively SC4. understand different market segments for marketing, research and communication SC1. assess and understand the global and local tourism potentials SC15. perform accounting and money transactions GC10. Maintain quality of work SC8. manage customers and stakeholders in English/another foreign language SC6. effectively operate tourism companies GC25. Skills in the use of

			<p>and relevant software</p> <p>5- Knowledge of at least two foreign languages</p>	<p>8- Managing costs of offered services and products</p> <p>9- Negotiating and discussing contracts with service providers</p> <p>10- Ensuring quality of services provided to clients</p> <p>11- Supervising and training their staff</p>	<p>information and communication technologies</p> <p>GC13. Communicate in a second language</p>
Ticket Travel Agents	<p>Tunisia Jobs Tourism Professions Code:</p> <p>http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Cod e3414.01Ar.mht</p>	Not stated in the reference	<p>1- Depth knowledge of travel booking operations, hotel rooms and tourist stay.</p> <p>2- Knowledge of operating the agency equipment.</p> <p>3- Knowledge of air transport companies, rail and sea.</p> <p>4- Knowledge of fares, routes and</p>	<p>1- Welcoming and greeting clients</p> <p>2- Informing clients and selling to them travel products (air, rail and sea).</p> <p>3- Booking in accommodations</p> <p>4- Managing operation of a travel agency (personnel, equipment, hotel rooms and cash).</p> <p>5- Giving advice to clients on routes, fares, services provided by air transport companies, sea and rail</p> <p>6- Issue of the tickets and calculating the price;</p> <p>7- Controlling daily revenues and making up the schedule of daily receipts</p>	<p>SC10. financially manage tourism services</p> <p>GC7. Work in an interdisciplinary team</p> <p>GC8. Lead effectively</p> <p>SC4. understand different market segments for marketing, research and communication</p> <p>SC1. assess and understand the global and local tourism potentials</p> <p>SC15. perform accounting and money transactions</p> <p>GC10. Maintain quality of work</p> <p>SC8. manage customers and stakeholders in English/another foreign language</p> <p>GC25. Skills in the use of</p>

			<p>connections.</p> <p>5- Knowledge of aircraft types.</p> <p>6- Knowledge of national and international legislation concerning the transport and tourism.</p> <p>7- Mastering the use of computers and special software</p>	<p>8- Ensuring payment of airlines, sea and rail</p> <p>9- Doing research for new customers;</p> <p>10- Maintaining permanent relationship with airlines and shipping companies (customer service);</p> <p>11- Maintaining a record of regular customers</p> <p>12- Recruiting, training and supervising staff (ticket agent) under their command.</p>	<p>information and communication technologies</p> <p>- GC13. Communicate in a second language</p>
Home Travel Agents	<p>Tunisia Jobs Tourism Professions Code:</p> <p>http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Cod e5111.02Ar.mht</p>	Not stated in the reference	<p>1- Knowledge of the stages of stay of tourists.</p> <p>2- Knowledge of the Tunisian legislation related to tourism</p> <p>3- Knowledge of cultural differences of customers and</p>	<p>1-Ensuring the comfort of customers.</p> <p>2-Collecting reservations sent by the travel agent or tour operator abroad and planning itinerary</p> <p>3-To arrange bus transfer (-Hotel Airport) and return to hotels and other additional services</p>	<p>SC6. effectively operate tourism companies</p> <p>SC10. financially manage tourism services</p> <p>GC7. Work in an interdisciplinary team</p> <p>GC8. Lead effectively</p> <p>SC4. understand different market segments for marketing, research and communication</p> <p>SC1. assess and understand the global and local tourism</p>

			<p>main services to be offered to customers.</p> <p>4- Knowledge about accidents, hospitalization, repatriation and insurance.</p>	<p>4-The reception of guests upon arrival and departure at the airport</p> <p>5-Ensuring the smooth transportation of baggage</p> <p>6-Organizing an information meeting on the stay of customers and advising them;</p> <p>7-Collecting the tickets and ensuring the confirmation of returns;</p> <p>8-Receiving suggestions and complaints and finding appropriate solutions</p> <p>9-Maintaining their information board located in the hotel lobby for useful information to customers;</p> <p>10- Helping customers in accident or serious illness by getting them to be treated by a</p>	<p>potentials</p> <p>SC15. perform accounting and money transactions</p> <p>GC10. Maintain quality of work</p> <p>GC25. Skills in the use of information and communication technologies</p> <p>SC8. manage customers and stakeholders in English/another foreign language</p> <p>GC13. Communicate in a second language</p>
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				doctor in a clinic or be repatriated.	
Tour Guides	Lebanon: Decree No 11576 of 27/12/1997 ; No.7 of Decree No 15598/70:	Any Lebanese who performs for tourists, support and guidance in archaeological sites, museums and major tourist attractions is qualified as a guide. There are 2 types of tour guides in Lebanon: 1- Escorting Guide: guiding a group of maximum 45 tourists in all types of tourist attractions and trips 2- Local Guide: guiding a group of maximum 12 tourists in specific locations	1- Must be Lebanese and of an age not less than 18 years old. 2- Does not have a criminal history record. 3- He must have at least an undergraduate degree in a relevant profession. 4- Fluently using (in addition to Arabic) 2 foreign languages, one of them is English or French	1- Guiding tourists in archaeological sites and giving commentary 2- Escorting groups in different types of sites 3- Monitoring and protecting sites from any negative behaviors 4- Informing tourism ministry about any potential threats to tourist sites	GC8. Lead effectively SC1. assess and understand the global and local tourism potentials SC8. manage customers and stakeholders in English/another foreign language GC13. Communicate in a second language GC21. The preservation of cultural heritage and values GC17. Search for information from a variety of sources SC14. identify the natural and cultural tourism resources

			5- Passed the interviews and tests of obligatory training by Tour Guides Institute (belongs to Ministry of Tourism)		
Tour Guides	Jordan Legislation (34/1998)	(Article2): a tour guide is the person guiding and escorting tourists to different tourist sites and attractions, with giving interpretation about them. Types of tour guides in Jordan: (Article 4) 1- General Tour Guide (can do his duty in all Jordan's tourist sites) 2- Site Tour Guide (restricted to a specific	(Article 3) 1. Must be Jordanian and of an age not less than 20 years old. 2. Does not have a criminal history record. 3. He must have at least an undergraduate degree in a relevant profession. 4. Passed the English/foreign language test and other exams set by	Not stated in the reference	Cannot be compared to competences

		site)	<p>MOTA (Ministry of Tourism & Antiquities).</p> <p>5. Passed the training test set by MOTA.</p> <p>6. Fully committed to the career of tour guiding, no other jobs in public sector are allowed.</p>		
Tour Guides	<p>Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code5113.00Ar.mht</p>	Not stated in the reference	<p>1- A deep knowledge of geographical features of the country, also its distinguished climatic and geological characteristics, fauna, flora, and agricultural/fishing cultures.</p> <p>2- Knowledge of history, ancient</p>	<p>1- Escorting individual tourists or group during tours or site excursions</p> <p>2- Ensuring the smooth running of tours/trips</p> <p>3- Taking the responsibility of tourists and their safety during trips/tours</p> <p>4- Handling trips budgets/ budget pocket expenses</p> <p>5- Informing tourist about geographical, natural, economic, historical and cultural aspects of the areas/regions or sites they visit</p> <p>6- Committing to and running the program of</p>	<p>GC8. Lead effectively</p> <p>SC1. assess and understand the global and local tourism potentials</p> <p>SC8. manage customers and stakeholders in English/another foreign language</p> <p>GC13. Communicate in a second language</p> <p>GC17. Search for information from a variety of sources</p> <p>SC14. identify the natural and cultural tourism resources</p>

			<p>civilizations, cultural/artistic/architectural heritage, and different forms of urban settlements.</p> <p>3- Knowledge of different arts and traditions related to costumes, cuisine and crafts.</p> <p>4- Having knowledge of ways of living of different groups as well as traditions and customs of feasts and ceremonies.</p> <p>5- Having knowledge of different routes, sites</p>	<p>the itinerary put by the tour operator and selected by the clients</p> <p>7- Enlightening and advising tourists when buying traditional handicrafts</p> <p>8- Making payments to or providing vouchers to some service providers (museum entrance fees, restaurants, and accommodations).</p> <p>9- Satisfying different needs of tourists and ensuring the good image about the country</p>	
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			and entrance fees.		
Tour Guides	Egypt Tour Guides Legislation 121/1983	Article 1: A tour guide is a person who gives commentary and guides tourist in archaeological sites, museums or exhibitions for a remuneration	<ol style="list-style-type: none"> 1. Must be Egyptian and not less than 21 years old 2. Does not have a criminal history record. 3. Must be in a good health condition 4. He must have at least an undergraduate degree or diploma in a relevant profession. 5. Passed the tests held by Ministry of Tourism (holders of BA or diploma in tourism guidance are excluded) 	Not stated in the reference	Cannot be compared to competences

			6. Fully committed to the career of tour guiding, no other jobs in public sector are allowed unless he/she had a leave without pay		
Hotels/ Accommodations (large hotel unit) General Managers	Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Cod e1225.01Ar.mht	Not stated in the reference	1- A knowledge of different operations and functions carried out by different departments (marketing, rooms division, catering, accounting... etc) 2- A deep knowledge of different products offered by the	1- Being able to manage a (large hotel unit) with in collaboration with the heads of departments of the hotel 2- Supervising and directing the performance of the establishment 3- Representing the establishment for authorities and organizations 4- Preparing the budget in cooperation with the heads of departments, 5- Making necessary changes that enhance the performance of the hotel 6- Following up reports	SC6. effectively operate tourism companies SC10. financially manage tourism services GC7. Work in an interdisciplinary team GC8. Lead effectively SC4. understand different market segments for marketing, research and communication SC15. perform accounting and money transactions GC10. Maintain quality of work GC25. Skills in the use of information and communication technologies SC8. manage customers and

			<p>establishment and its competitors</p> <p>3- A deep knowledge of tourism trends</p> <p>4- A full knowledge of tourism legislations</p> <p>5- Proficiency at least two different languages</p>	<p>prepared by departments' heads, also revenues, expenses and forecasts</p> <p>7- Making decisions of purchasing and acquisitions</p> <p>8- Leading periodic meetings with departments' heads</p> <p>9- Ensuring the compliance with quality standards in providing services to clients</p> <p>10- Getting feedback of clients to improve performance of the hotel and services provided</p> <p>11- Maintaining the good image of the establishment</p>	<p>stakeholders in English/another foreign language</p> <p>GC13. Communicate in a second language</p> <p>GC5. Identify and resolve problems</p>
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Hotels/ Accommodations Assistant Managers	Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Cod e3439.00Ar.mht	Not stated in the reference	<ul style="list-style-type: none"> 1- A deep knowledge of different procedures related to different services 2- A full knowledge of clients needs and behaviors 3- A full knowledge of different activities and cultural events within and outside the establishment 4- Being able to use appropriate information technology systems and software 6- Using 	<ul style="list-style-type: none"> 1- Supervising the performance of and coordinating between directors in the establishment to provide the best service 2- Making up the budget with the assistance of departments directors 3- Making up the forecasts of occupancy with the assistance of sales manager 4- Maintaining the good performance of different functions and ensuring good safety practices 5- Committing to the budget 6- Being able to act as a general manager when necessary 	<ul style="list-style-type: none"> SC6. effectively operate tourism companies SC10. financially manage tourism services GC7. Work in an interdisciplinary team GC8. Lead effectively SC4. understand different market segments for marketing, research and communication SC15. perform accounting and money transactions GC10. Maintain quality of work GC25. Skills in the use of information and communication technologies SC8. manage customers and stakeholders in English/another foreign language GC13. Communicate in a second language GC20. Health and safety procedures
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			fluently at least two different languages		
Accommodations Receptionists	Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Cod e4222.01Ar	Not stated in the reference	<ul style="list-style-type: none"> 1- Knowledge of different departments of the hotel 2- A full knowledge of rooms and their types and running 	<ul style="list-style-type: none"> 1- Welcoming and registration of clients 2- Allocating guests to rooms/ managing room occupancy 3- Informing visitors about different types of rooms and their characteristics (layout, orientation, 	<ul style="list-style-type: none"> SC6. effectively operate tourism companies SC10. financially manage tourism services GC7. Work in an interdisciplinary team SC4. understand different market segments for marketing, research and communication

	mht		<p>their amenities/equipments</p> <p>3- Knowledge of events at and outside the hotel</p> <p>4- A full knowledge of legislations related to the stay of travelers</p> <p>5- A full knowledge of standards and practices of safety</p> <p>5- Mastering information technology and relevant software</p>	<p>equipment)</p> <p>4- Accompany of guests to their rooms and providing them with welcome booklet</p> <p>5- Informing guests with events at and outside the establishment</p> <p>6- Opening a guest folio/ customer record and billing/invoice (posting charges)</p> <p>7- Informing other divisions with the arrival of the client and necessary details</p> <p>8- Planning room occupancy and cooperating with staff to increase the sell outs</p> <p>9- Preparing price lists</p> <p>10- Monitoring the implementation of safety, sanitation and hygiene</p> <p>11- Ensure that the traveler sheet is completed by the client (and, if necessary, to assist)</p> <p>12- Inform other relevant services (standard, concierge, restoration) of</p>	<p>SC15. perform accounting and money transactions</p> <p>GC10. Maintain quality of work</p> <p>GC25. Skills in the use of information and communication technologies</p> <p>SC8. manage customers and stakeholders in English/another foreign language</p> <p>GC13. Communicate in a second language</p>
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				<p>the arrival of the client (room number, name, quality)</p> <p>13- Verify the report of the housekeeper and to establish the comparative statement in case of anomaly detected</p> <p>14- Plan room occupancy</p> <p>15- Collaborate with the housekeeper to maximize room occupancy</p> <p>16- Prepare lists special offers, VIP and arrivals</p>	
Hotels/ Accommodations Hosting Directors (large hotels)	<p>Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Cod e1225.03Ar.mht</p>	Not stated in the reference	<p>1- Having deep knowledge of techniques and practices related to welcoming of guests and reservation</p> <p>2- Having full knowledge of operating different amenities in front office</p> <p>3- Having full knowledge of</p>	<p>1- Managing and supervising front office</p> <p>2- Representing the general manager when welcoming guests and dealing with their complains and feedbacks</p> <p>3- Monitoring reservation</p> <p>4- Reviewing occupancy forecasts</p> <p>5- Welcoming VIP's and allocating them to their rooms or suites</p> <p>6- Contributing to the making of establishment budget</p>	<p>SC6. effectively operate tourism companies</p> <p>SC10. financially manage tourism services</p> <p>GC7. Work in an interdisciplinary team</p> <p>GC8. Lead effectively</p> <p>SC4. understand different market segments for marketing, research and communication</p> <p>SC15. perform accounting and money transactions</p> <p>GC10. Maintain quality of work</p> <p>GC25. Skills in the use of information and</p>

			<p>services provided to clients</p> <p>4- Having full knowledge of regulations concerning the stay of guests</p>	<p>17- Opening a guest folio and billing (posting charges)</p> <p>7- Monitoring and checking the quality of rooms and suites of VIP's</p> <p>8- Planning and organizing meetings with assistants to improve services as goes with clients' feedbacks</p> <p>9- Recruiting and training employees in front office division</p> <p>10- Monitoring the performance of different amenities in front office division</p> <p>11- Committing to safety procedures</p>	<p>communication technologies</p> <p>SC8. manage customers and stakeholders in English/another foreign language</p> <p>GC13. Communicate in a second language</p> <p>GC20. Health and safety procedures</p>
Restaurants /Bars/Cafes Owners+ Agents	<p>Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Cod e1315.01Ar.mht</p>	Not stated in the reference	<p>1- Knowledge of the operations and management of an establishment (restaurant, bar or cafe).</p> <p>2- Full knowledge of the laws governing this type of</p>	<p>1- Taking responsibility for the running of the establishment (restaurant, bar or coffee).</p> <p>2- Managing their own business or on behalf of others.</p> <p>3- Undertaking the necessary steps to obtain permits to open a business</p> <p>4- Accounting work</p>	<p>SC6. effectively operate tourism companies</p> <p>SC10. financially manage tourism services</p> <p>GC7. Work in an interdisciplinary team</p> <p>GC8. Lead effectively</p> <p>SC4. understand different market segments for marketing, research and communication</p>

			<p>business (accounting, taxation, labor laws, collective agreements, regulations and health and safety standards, authorization of drinking establishment).</p> <p>3- Knowledge of all the equipment of the establishment and their functioning.</p> <p>4- Knowledge of products necessary for the establishment and their acquisition.</p> <p>5- Knowledge of table and other types of services (room, bar, kitchen).</p>	<p>5- Ensuring the supply of products and their compliance with at the reception (quantity and quality);</p> <p>6- Managing cost ratios / food and beverages;</p> <p>7- Making and collecting invoices.</p> <p>8- Recruiting, training and supervising staff;</p> <p>9- Ensuring the proper functioning of equipment, their maintenance and renewal</p> <p>10- Ensuring good management of the budget</p> <p>11- Ensuring the customer satisfaction and the good image of the establishment</p> <p>12- Ensuring the implementation of health and safety rules and regulations</p> <p>13- Maintaining all administrative documents related to the property.</p>	<p>SC15. perform accounting and money transactions</p> <p>GC10. Maintain quality of work</p> <p>GC25. Skills in the use of information and communication technologies</p> <p>SC8. manage customers and stakeholders in English/another foreign language</p> <p>GC13. Communicate in a second language</p> <p>GC20. Health and safety procedures</p>
Hotel	Tunisia	Not stated in the	1- Knowledge	1- Taking responsibility for	SC10. financially manage

Reception Cashiers	Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code4211.01Ar.mht	reference	of different departments of the hotel. 2- Knowledge of different procedures for services rendered. 3- Knowledge of different methods of payment (checks, credit cards, foreign exchange, letters of support, purchase orders ...). 4- Knowledge of various foreign currencies. 5- Knowledge of the various charges to make the seizures relating to the different services	the collection of amounts due in exchange for services consumed. 2- Ensuring accountability of the fund and safes of the hotel. 3- Checking the conformity of the name, signature and room number on checks (spending) signed by customers and to charge their notes 4- Getting the receipt of invoices and justify expenditures if challenged by customers; 5- Checking the box to end service and submitting receipts to the Finance Department.	tourism services SC15. perform accounting and money transactions GC10. Maintain quality of work GC25. Skills in the use of information and communication technologies SC8. manage customers and stakeholders in English/another foreign language GC13. Communicate in a second language GC20. Health and safety procedures
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			provided. 6- Mastery of Information Technology and relevant software		
Hotel Sales Managers	Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code1225.02Ar.mht	Not stated in the reference	<ul style="list-style-type: none"> 1- Extensive knowledge of marketing techniques. 2- Knowledge of hotel products and competitors. 3- Knowledge of all events 4- Knowledge of foreign languages. 5- Mastering of Information Technology and using relevant software 	<ul style="list-style-type: none"> 1- Establishing the marketing budget 2- Establishing and forecasting occupancy rates for the year, in collaboration with other departments and have them approved by senior management 3- Coordinating the solicitation-planned program of their employees (sales representatives or lobbyists); 4- Carrying out advertising campaigns in both Tunisia and abroad through newspapers, media, brochures, calendars, pens, etc ...; 5- Carrying out promotions of the hotel's special offers for products as part of a 	<p>SC6. effectively operate tourism companies</p> <p>SC10. financially manage tourism services</p> <p>GC7. Work in an interdisciplinary team</p> <p>SC4. understand different market segments for marketing, research and communication</p> <p>SC15. perform accounting and money transactions</p> <p>GC10. Maintain quality of work</p> <p>GC25. Skills in the use of information and communication technologies</p> <p>SC8. manage customers and stakeholders in English/another foreign language</p> <p>GC13. Communicate in a second language</p>

				<p>budget;</p> <p>6- Exploring new markets and participate in fairs and events both in Tunisia and abroad;</p> <p>7- Negotiating collaboration agreements with travel agents, tour operators, public and private organizations, companies ...;</p> <p>8- Ensuring that the products conform to the hotel's brand image with being in compliance with standards;</p> <p>9- Monitoring the outcomes obtained, comparing them with the forecast and making the necessary corrections of forecasts to optimize performance</p>	
Small Hotel Managers/ Agents	<p>Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesP</p>	Not stated in the reference	<p>1- Knowledge of managing the operations of a hotel.</p> <p>2- Knowledge of legislation regulating this type of business (compatibility,</p>	<p>1- Managing the operation of a small hotel unit of their own or of others.</p> <p>2- Ensuring responsibility for the proper functioning of a hotel.</p> <p>3- Undertaking the necessary steps to obtain permits to open a</p>	<p>SC6. effectively operate tourism companies</p> <p>SC10. financially manage tourism services</p> <p>GC7. Work in an interdisciplinary team</p> <p>GC8. Lead effectively</p> <p>SC15. perform accounting and money transactions</p>

	rofession/Ar/Code1315.02Ar.mht		taxation, law, labor law, collective agreement, safety and hygiene standards). 3- Knowledge of equipment, products and supplies necessary for the proper functioning of the institution.	business; 4- Managing financial aspects of the institution; 5- Issue of invoices 6- Allocating tasks of staff; 7- Proceeding to purchases of equipment and materials necessary for the proper functioning of the establishment 8- Planning room occupancy; 9- Ensuring the proper preparation of rooms and maintenance of equipment and facilities of the hotel 10-	GC10. Maintain quality of work GC25. Skills in the use of information and communication technologies SC8. manage customers and stakeholders in English/another foreign language GC13. Communicate in a second language GC20. Health and safety procedures
General Hotel Housekeepers	Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code5124.02Ar.mht	Not stated in the reference	1- Thorough knowledge of cleaning products, qualities of linen and cleaning techniques. 2- Decoration skills.	1- Managing the team responsible of the cleanliness of rooms and common areas of the hotel. 2- Monitoring and supervising the tasks of their staff (cleaning, laundry, sewing, decoration); 3- Taking daily to the commissary products necessary for the operation of their department (home products, cleaning	GC7. Work in an interdisciplinary team GC8. Lead effectively SC4. understand different market segments for marketing, research and communication GC10. Maintain quality of work GC20. Health and safety procedures

				<p>products, soaps, shampoos, paper etc ...)</p> <p>4- Managing their stocks of linen, uniforms, cleaning products, materials and ensure their proper use;</p> <p>5- Advising on the purchases provided for their department;</p> <p>6- Testing the cleaning products</p> <p>7- Ensuring that the furniture, equipment and linens are in good condition in the rooms and common areas;</p> <p>8- -Ensure the smooth running of dirty linen exchange operation against clean cloth (staff - laundry);</p> <p>9- Ensuring the permanent cleanliness of rooms and common premises under their responsibility;</p> <p>10- Checking the VIP rooms;</p> <p>11- Organizing their work according to occupation forecasts (rooms, banquet, reception, conference ...) provided by the relevant departments</p>	
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				<p>12- Updating the table of scheduled events</p> <p>13- Ensuring that report of the housekeeper (room occupancy) delivered on time at the reception and financial control</p> <p>14- Checking work performed by the maintenance dept.</p> <p>15- Ensuring that the items left by clients in the rooms to be made available</p> <p>16- Ensuring the implementation of hygiene and safety rules;</p> <p>17- Running, testing and completing the training of the staff of their department.</p>	
Caretakers Hotels	<p>Tunisia Jobs Tourism professions Code: http://www.tourisme.gov.tn/fileadmin/FichesProfession/Ar/Code4224</p>	Not stated in the reference	<p>1-Knowledge of useful addresses and events held at the hotel and in the city and of interest</p>	<p>1-Ensuring the smooth running of luggage transport, distribution of cards/keys, mail, messages and any additional service requested by the client (information, entertainment bookings, train, boat, plane tickets, flowers)</p> <p>2-Monitoring activities taking place in the hotel lobby.</p>	<p>SC10. financially manage tourism services</p> <p>GC7. Work in an interdisciplinary team</p> <p>GC8. Lead effectively</p> <p>SC15. perform accounting and money transactions</p> <p>GC10. Maintain quality of work</p> <p>SC8. manage customers and stakeholders in</p>

	<u>.00Ar.mht</u>		to customer s.	<p>3-Managing their staff (mail clerk, janitor and porter) and ensuring their good behavior and conduct.</p> <p>4--Supervising the entry and exit of luggage;</p> <p>5-Reviewing atlases of cities and road maps and to plan trips requested by customers;</p> <p>6- Enforcing safety regulations.</p>	<p>English/another foreign language</p> <p>GC13. Communicate in a second language</p> <p>GC20. Health and safety procedures</p>
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General Conclusions:

- 1- It can be noticed from the above table that sources of job descriptions in MENA region are only covering the basic tasks of some careers in travel agencies, accommodations, F&B services and tour guiding.
- 2- Only few competences were covered in these job descriptions, the ones that appeared most frequently were:
 - SC6. Effectively operate tourism companies
 - SC10. Financially manage tourism services
 - GC7. Work in an interdisciplinary team
 - GC8. Lead effectively
 - SC4. Understand different market segments for marketing, research and communication
 - SC1. Assess and understand the global and local tourism potentials
 - SC15. Perform accounting and money transactions
 - GC10. Maintain quality of work
 - GC25. Skills in the use of information and communication technologies
 - SC8. Manage customers and stakeholders in English/another foreign languages
 - GC13. Communicate in a second language
 - GC20. Health and safety procedures

While other competencies were totally or mostly absent, these include:

For Generic Competencies

Ability to:

- GC1. Manage time effectively
- GC2. Communicate orally and in writing with different audiences
- GC3. Maintain continuous education
- GC4. Have critical thinking, analysis and synthesis
- GC5. Identify and resolve problems
- GC6. Make logical decisions
- GC9. Work autonomously
- GC11. Act ethically with social responsibility
- GC12. Apply knowledge in practical situations
- GC14. Be innovative and creative
- GC15. Be flexible and adapt to different situations
- GC16. Empower others
- GC17. Search for information from a variety of sources
- GC18. Protect and preserve the environment

Commitment to:

- GC19. Human rights
- GC21. The preservation of cultural heritage and values

Having:

- GC22. Organizational skills
- GC23. Sense of dedication
- GC24. Respect for diversity and multiculturalism

Being:

- GC26. Initiative-driven
- GC27. Self-motivated
- GC28. Assertive

For Specific Competencies

Ability to:

- SC2. Demonstrate hands-on experience in real life environment
 - SC3. Apply knowledge and skills in tourism jobs
 - SC5. Understand concepts such as carrying capacities and ecological footprint
 - SC7. Make effective identification and presentation of tourist environment
 - SC11. Understand the current issues in tourism and other general knowledge
 - SC12. Have knowledge and capabilities of procurement techniques
 - SC13. Develop knowledge of key concepts, theories and practices in the tourism activities
- 3- If we refer to the bridging between the meta-profile developed by the Tourism SAG and the current degree profiles of the partner universities, it can be noticed that some competences are not considered in these degree profiles as in the case of job descriptions discussed here, these are:
- Comprehending current issues in tourism
 - Maintaining long life learning
 - Being self-motivated
 - Managing time efficiently
 - Making logical decisions
- 4- The competences of "Dealing with tourism stakeholders in foreign language" and "Maintaining quality of work" were existing in job descriptions, but not in universities degree profile

Such conclusions signify the importance of considering competency-approach in developing tourism and hospitality educational programs in MENA, this becomes important since those current job descriptions (which are formally declared for few countries in this region) are not covering basic knowledge, skills and traits needed for high quality performance in tourism and hospitality careers.

Mairna Mustafa

July 23rd 2015

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STUDENTS' WORKLOAD SURVEY

Procedure and questionnaires

As a result of the Fourth General Meeting of the project held in Malta, a method has been defined for applying a questionnaire that will estimate the student workload. Thus, here are the steps proposed to carry out the survey.

A) WHAT TO CONSULT?

The survey aims to approximate the **real volume of work hours needed by a student to pass the unit/course/module** from the point of view of teachers' planning and perception and students' opinion. This requires that each participating university in each subject area defines an **ACADEMIC TERM** in the **PROGRAMME DEGREE**. An academic term consists of a semester the programme degree.

For example: the Bachelor in Agricultural Sciences from the University XYZ is structured in 6 semesters (3 years duration). The survey will be conducted with reference to the fifth semester of studies (i.e. people who studied and passed the first semester of the 3rd Year).

Year	Semester	Course/Module
1	1st Semester	Agricultural Chemistry and Soil Science
		Animal Production: Principles and Techniques
		Agromony and Horticultural Crop Production
		Applied Economics, Extension and Systems
	2nd Semester	Microbiology and Genetics I
		Agrometeorology and Climate Change
		Food Science and Technology
		Agricultural Engineering and Applications
2	3rd Semester	Statistical Methods for Agricultural Sciences
		Biochemistry and Biotechnology
		Pests, Diseases and Weeds Control
		Animal Production and Science I
	4th Semester	Botany and Crop Physiology
		Scientific Communication Skills
		Microbiology and Genetics II
		Animal Science and Production II
3	5th Semester	Crop Production Technologies
		Postharvest Management and Agricultural Produce Processing
		Project I
		Agricultural Management and Marketing
4	6th Semester	Entrepreneurship for Small and Medium Agribusiness
		Project II
		Practical Training

The semester marked in red is the academic period selected to implement the survey. In that semester according to this programme (used only as an example) there are 4 units/courses/module:

Year	Semester	Unit/Course/Module
3	5	Crop Production Technologies
		Postharvest Management and Agricultural Produce Processing
		Project I
		Agricultural Management and Marketing

The survey will be conducted for **students who have taken and passed the four or one of the four units/courses/modules provided under the semester**. Teachers who have taught the 4 units/courses/modules in the semester will also be surveyed.

The surveys will be conducted for **EACH UNIT/COURSE/MODULE**.

B) WHO TO CONSULT?

The universe of study are the teachers and students of **ALL units/courses/modules of the selected academic period just ended**. Returning to the example, and since the academic period selected is the fifth semester of the programme (first semester of the 3rd Year), the 4 units/courses/modules provided in the programme will be taken into account.

Each of the **participating universities in the different subject areas** in the Tuning MEDA project will conduct surveys to:

1) Teachers: teachers must be selected (main teachers of the unit/course/module, teaching assistants, etc.) who have taught these units/courses/modules in the academic period.

2) Students: Students must have passed the unit/course/module for which they will be surveyed. It is desirable that the student sample is composed of an equal number of students who have obtained very good grade, medium grade and low grade.

C) HOW MANY TO CONSULT?

1) Teachers: Each participating university must apply the survey to **ALL** teachers who have taught the units/courses/modules that are included in the selected academic period. In the case of the example, the 4 professors who teach the 4 units/courses/modules must be surveyed. If there are other teachers apart from the main ones, the survey should also apply to them. The minimum to survey is one teacher for each unit/course/module, and primarily the main teacher of the unit/course/module.

2) Students: Each participating university survey should be applied to **10 students who have passed each of the units/courses/modules included in the selected academic period** (where there are fewer students who passed the unit/course/course, the maximum number who have passed will be surveyed). Following the example, at least 40 students should be surveyed in total. It is important to note that the **survey is conducted PER**

UNIT/COURSE/MODULE. It can be given in many cases that one student who, having passed more than one of the units/courses/modules included in the selected academic term, answers several surveys.

Year	Semester	Unit/Course/Module	Minimum number of respondents (Teachers)	Minimum number of respondents (Students)
3	5	Crop Production Technologies	1	10
		Postharvest Management and Agricultural Produce Processing	1	10
		Project I	1	10
		Agricultural Management and Marketing	1	10
		Total	4	40

D) WHAT FORMAT TO USE FOR THE CONSULTATION?

The survey will be conducted for **EACH UNIT/COURSE/MODULE**, both for students and teachers. Annex I is the questionnaire for teachers and Annex II is the questionnaire for Students. Each questionnaire has **6 questions** to answer and the duration ranges from five to ten minutes. The questionnaires will be answered on paper and will be applied by the representative of the University in the Tuning MEDA project.

E) HOW TO BRING FORWARD THE CONSULTATION?

There are 3 steps to follow in relation to the consultation:

1) Preparation of the consultation

Survey is organized and supervised by Tuning representative of each participating University – member of project Subject Area Group. This person has to send to the Coordination of the project the following information:

1. **Name of the Programme in which the study will be conducted:** (eg Bachelor of Education.)
2. **Duration of the Programme in years** (eg 4 years.)
3. **Academic Period:** (eg 5th semester.)
4. **Number of calendar weeks in the semester:**
5. **Academic hour** in your university is _____ minutes.
5. **Name of the Units/Courses/Modules covered in that period:**
 - i. **Unit/Course/Module a:** (eg Crop Production Technologies.)
 - ii. **Unit/Course/Module b:** (eg Postharvest Management and Agricultural Produce Processing.)
 - iii. **Unit/Course/Module c:** (eg Project I.)
 - iv. **Unit/Course/Module d:** (eg Agricultural Management and Marketing.)
 - v. **Unit/Course/Module ...**

This information should be sent to the project coordinator **before 05 November 2015**.

Upon reception of the information on academic periods and units/courses/modules, the coordination of the project will prepare an on-line application of the two questionnaires. The questionnaires will be sent to each participating University in PDF format for organization of survey in printed-paper format. Same questionnaires will be available on a Web site and access will be possible with a user code that will be supplied. This access is only for Tuning representative of University who will introduce data from paper questionnaire into the system. **Each participating university will receive a user code to access the questionnaires.** Thus, each of the participating universities in each subject area will have one access code to the questionnaires of students and another access code for the teachers' questionnaires.

2) Conducting the surveys

Each Tuning representative in each participating University in each subject area should identify the professors and students undertaking the survey. Tuning representative can save online form as PDF file, print and distribute it to the professors and/or students participating in the survey.

Students and teachers should be convened to briefly explain them the project and the purpose of the survey. Once the objectives and characteristics of the survey are explained, the questionnaire should be distributed among the participants in printed form, so that they can complete it before leaving. This procedure facilitates the collection of information, since in a morning or afternoon the explanatory talk and data collection can be easily performed.

Fulfilled printed forms have to be finally collected by Tuning representative.

3) Loading surveys in the On-line application

The completed questionnaires on paper must be loaded into the on-line application. The Tuning representative in the subject area in each University, in accordance with codes provided by Coordinator, must upload all questionnaires one by one on the website. It must be kept in mind that when loading the questionnaires they need to be identified with the corresponding group code, for example, for loading students' questionnaires, in order to enter the site of on-line consultation, it will be necessary to use the user code supplied by the University for the student group. Once all students' questionnaires are loaded, the site must be left and then re-enter with the user code for teachers. **No printed questionnaires at all should be sent to the project coordination as everything will be entered in an on-line form.**

The deadline for receiving the processed information is **29 February 2016**. From that date on the information that has not been loaded into the Online Consultation will not be taken into account for the analysis.

E. WHAT IS THE WORK SCHEDULE FOR PARTICIPATING UNIVERSITIES?

05/11/2015 Delivery by participating universities of the information on the academic period and subjects to be considered in the survey.

15/01/2016 Start of the survey process (including paper format and uploading data into the online system)

29/02/2016 End of survey process.

With all the information gathered, the project coordination will create the corresponding statistical tables and charts that will be discussed at the Fifth General Meeting in 2016.

Questionnaire for Teachers (EXAMPLE)

Dear Colleague,

This study is part of the Tuning MEDA project. We are conducting a survey to define the actual workload of students by collecting information from **TEACHERS**. Please fill out the form and answer the questions in the unit/course/module, which was taught by you during the last academic year. The collected data will be totally anonymous and confidential.

The project Tuning MEDA appreciates your collaboration in providing us with this information.

Instructions for completion:

Please underline or circle one answer ("Yes" or "No"), if answer is "Yes" please specify the amount of time.

1. University: _____
2. Programme: _____
3. Unit/Course/Module _____

4.	How many CONTACT HOURS ²¹ are in total devoted to your unit/course/module along the SEMESTER?	..... hours
5.	Specify the types of INDEPENDENT WORK you promote in the unit/course/module along the SEMESTER . Enter the estimated number of hours which, in your opinion, should the student have in order to complete self-work on unit/course/module.	
a.	Reading texts or literature	Yes, ... hours No
b.	Fieldwork (site visits, etc. not supervised)	Yes, ... hours No

²¹ Contact hours - the amount of time spent on training in contact with the teacher or other staff of the university in the study of a particular unit/course/module. It includes lectures, seminars, clinical practices, labs, project work and field work (supervised).

c.	Laboratory work (not supervised)	Yes, ... hours	No
d.	Preparation and execution/presentation of written work (essays, reports, design work, modelling)	Yes, ... hours	No
e.	Working with Internet sources	Yes, ... hours	No
f.	Preparing for interim assessment, final examinations, tests, etc.	Yes, ... hours	No
g.	Other (specify):	..... hours	No
6.	How many hours does an <u>AVERAGE</u> student need to complete all the requirements of the unit/course/module in this SEMESTER (taking into account CONTACT HOURS and INDEPENDENT WORK)?	..... hours	
7.	How many hours per WEEK does an <u>AVERAGE</u> student study (both CONTACT HOURS AND INDEPENDENT WORK) to complete all the requirements of the unit/course/module?	..... hours	
8.	When planning the workload for your unit/course/module, do you consider necessary to include hours for independent work of students?	Yes	No
9.	Do you take students' expectations and evaluation into consideration when planning the workload for the course?	Yes	No

Thank you for participating in the survey.

Questionnaire for Students (EXAMPLE)

Dear,

This study is part of the Tuning MEDA project. We are conducting a survey to define the actual workload of students by collecting information from **STUDENTS**. Please fill out the form and answer the questions in the unit/course/module that you have studied, finalized and passed in the last academic year. The data collected will be totally anonymous and confidential.

The project Tuning MEDA appreciates your collaboration in providing us with this information.

Instructions for completion:

Please underline or circle one answer ("Yes" or "No"), if answer is "Yes" please specify the amount of time.

1. University: _____
2. Programme: _____
3. Unit/Course/Module _____

4.	How many CONTACT HOURS ²² in total were you given to study this unit/course/module along the SEMESTER?	..... hours	
5.	Specify the types of INDEPENDENT WORK you use to learn the unit/course/module along the SEMESTER . Enter the estimated number of hours that you needed to complete self-work on unit/course/module.	..... hours	
a.	Reading texts or literature	Yes, ... hours	No
b.	Fieldwork (site visits, etc.)	Yes, ... hours	No
c.	Laboratory work (not supervised)	Yes, ... hours	No
d.	Preparation and execution/presentation of written work (essays, reports, design work, modelling)	Yes, ... hours	No
e.	Working with Internet sources	Yes, ... hours	No
f.	Preparing for interim assessment, final examinations, tests, etc.	Yes, ... hours	No
g.	Other (specify):	..... hours	No
6.	How many hours did you spend in the SEMESTER to complete all the requirements of the unit/course/module (taking into account CONTACT HOURS and INDEPENDENT WORK)?	..... hours	
7.	How many hours per WEEK did you spend (both CONTACT HOURS AND INDEPENDENT WORK) to complete all the requirements of the unit/course/module?		
8.	Have you been aware of the number of hours planned for the students for independent work in the unit/course/module?	Yes	No
9.	Has the professor guided you at the beginning of the unit/course/module on the necessary work load of each part of the Independent work?	Yes	No

Thank you for participating in the survey.

Results

1. Data editing, cleaning & checking and consistency

The raw database went through the standard process of editing, cleaning and checking for extreme, invalid or inconsistent values.

Given the nature of the survey, where individuals were asked to give rough estimates referred to the number of hours devoted to different academic activities within different time periods (semester, week), some inconsistencies and errors were to be expected. At the same time, and as it happens in many surveys, some questions were left unanswered sometimes or individuals assigned values which could be considered as inconsistent.

In the process some respondents were discarded because of several reasons, like

- Respondents assigning zero values simultaneously to the number of contact hours per semester, number of hours for independent work and number of hours including contact hours and independent work per week.

²² Contact hours - the amount of time spent on training in contact with the teacher or other staff of the university in the study of a particular unit/course/module. It includes lectures, seminars, clinical practices, labs, project work and field work (supervised).

- Respondents assigning inconsistent values so their data could distort final results. Careful analysis was carried out observing the distribution of different variables to decide what could be considered as inconsistent within each variable. For example, one respondent was considered inconsistent when the total number of contact hours plus independent work per week was above 100 hours.

2. Calculating results

Results are displayed according to four different areas and divided into academics and students. The methodology implies that in order to include a given academic institution in the final results, at least one value was requested for all courses constituting one given semester.

3. Results of the survey

Academics

Students

01

How many CONTACT HOURS* in total were you given to study this unit/course/module along the SEMESTER?

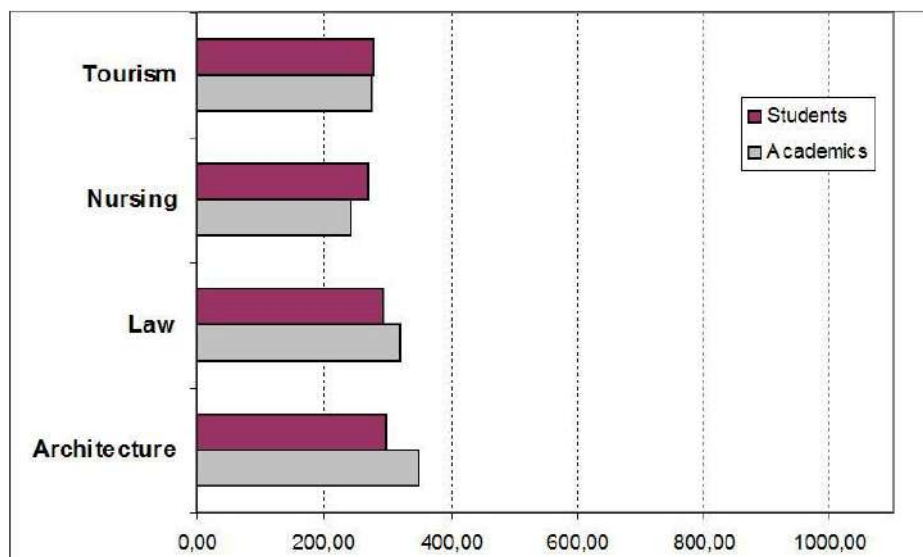
* Contact hours: the amount of time spent on training in contact with the teacher or other staff of the university in the study of a particular unit/course/module. It includes lectures, seminars, clinical practices, labs, project work and field work (supervised).

Total CONTACT HOURS to study this unit/course/module along the SEMESTER (1)		
	Academics	Students
Architecture	352,25	301,10
Law	321,67	294,04
Nursing	242,49	270,58
Tourism	276,36	279,67

Mean values for each area and group

02

How many CONTACT HOURS in total were you given to study this unit/course/module along the SEMESTER?



03

Academics

Specify the types of **INDEPENDENT WORK** you promote in the **unit/course/module along the SEMESTER**. Enter the estimated number of hours which, in your opinion, should the student have in order to complete self-work on unit/course/module.

Students

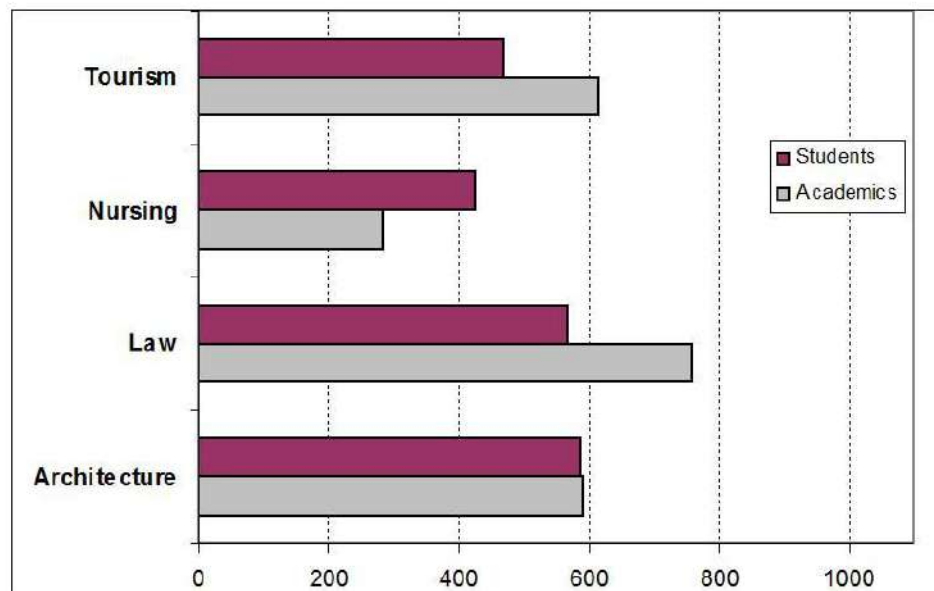
Specify the types of **INDEPENDENT WORK** you use to learn the **unit/course/module along the SEMESTER**. Enter the estimated number of hours that you needed to complete self-work on unit/course/module.

		INDEPENDENT WORK														TOTAL	
		Reading texts or literature		Fieldwork (site visits, etc. not supervised)		Laboratory work (not supervised)		Preparation and execution/ presentation of written work		Working with Internet sources		Preparing for interim assessment, final exam		Other			
		Academics	Students	Academics	Students	Academics	Students	Academics	Students	Academics	Students	Academics	Students	Academics	Students	Academics	Students
Architecture		89.63	92.32	46.00	34.02	36.00	71.24	234.60	158.02	68.38	96.62	117.26	120.22	0.00	7.36	590.75	580.40
Law		259.33	130.26	64.33	48.32	8.00	39.63	100.33	80.41	137.67	64.10	171.33	171.95	10.00	33.97	761.00	568.64
Nursing		88.10	90.74	26.51	72.10	14.60	40.72	35.63	56.93	48.47	52.42	88.67	110.34	1.67	3.60	283.54	425.94
Tourism		254.38	86.38	27.71	52.47	18.71	33.37	63.93	93.19	113.45	96.61	127.05	95.84	11.40	11.65	616.64	469.51

Mean values for each area and group. The final column containing the total is the sum of all previous columns

04

Total INDEPENDENT WORK to learn the unit/course/module along the SEMESTER



05

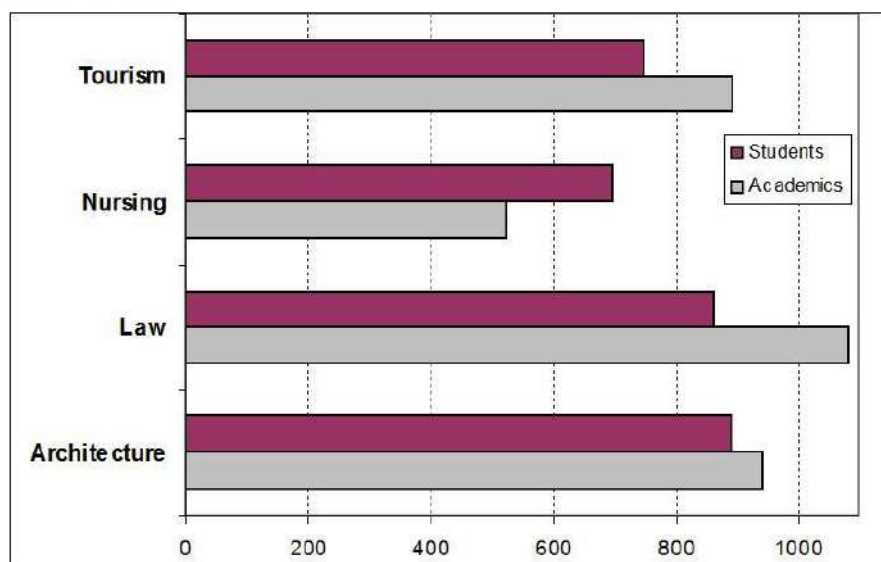
TOTAL NUMBER OF HOURS PER SEMESTER AS THE RESULT OF THE SUM OF THE PREVIOUS RESULTS

	How many CONTACT HOURS in total were you given to study this unit/course/module along the SEMESTER? (1)		Total INDEPENDENT WORK to learn the unit/course/module along the SEMESTER (2)		TOTAL (1) +(2)	
	Academics	Students	Academics	Students	Academics	Students
Architecture	352,25	301,10	590,75	589,49	943,00	890,58
Law	321,67	294,04	761,00	568,64	1082,67	862,68
Nursing	242,49	270,58	283,54	426,94	526,03	697,53
Tourism	276,36	279,67	616,64	489,51	893,00	749,18

(1) As shown on Slide 1
(2) As shown on Slide 3

Total CONTACT HOURS and INDEPENDENT WORK to learn the unit/course/module along the SEMESTER

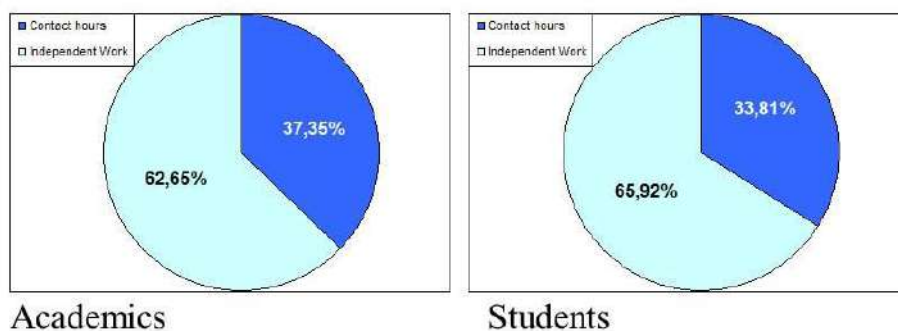
06



07

% Contact hours vs Independent Work

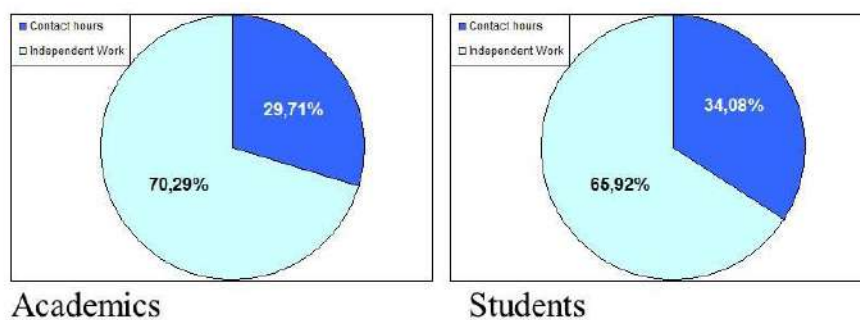
Architecture



08

% Contact hours vs Independent Work

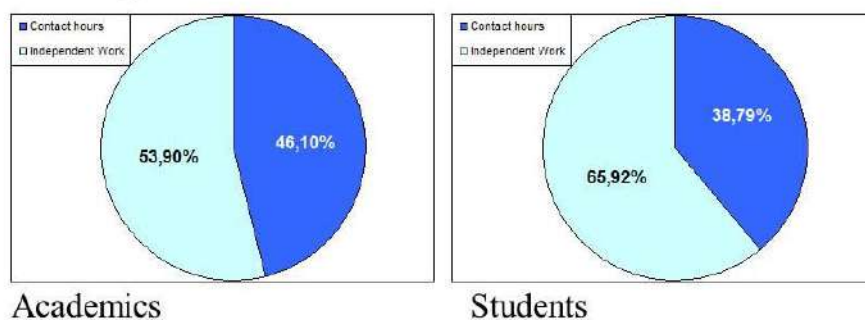
Law



09

% Contact hours vs Independent Work

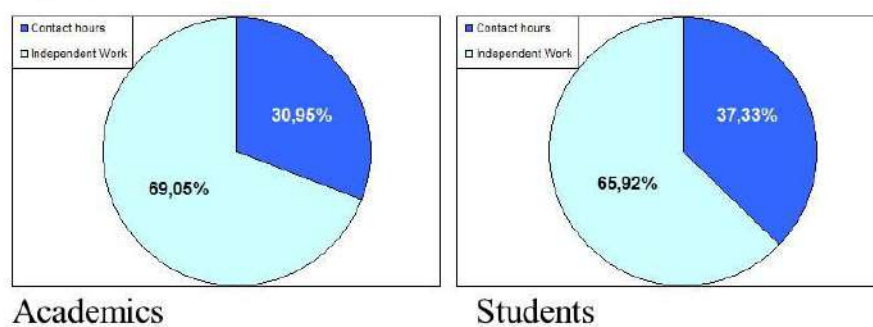
Nursing



10

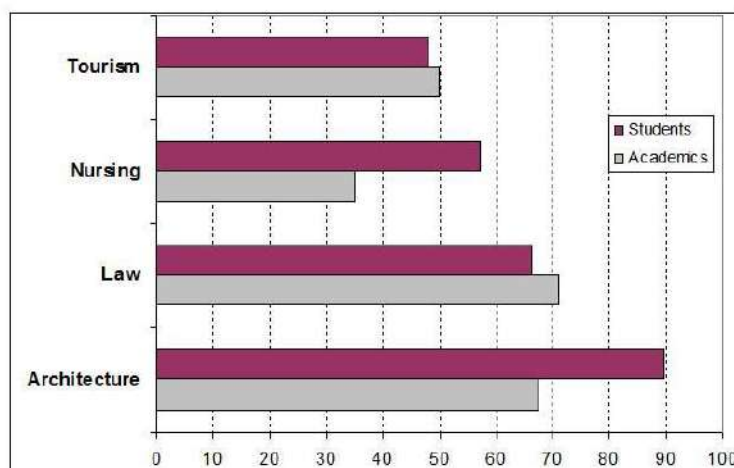
% Contact hours vs Independent Work

Tourism



14

Hours PER WEEK (both CONTACT HOURS AND INDEPENDENT WORK) to complete all the requirements of the unit/course/module



Academics

How many hours per WEEK does an AVERAGE student study (both CONTACT HOURS AND INDEPENDENT WORK) to complete all the requirements of the unit/course/module?

Students

How many hours per WEEK did you spend (both CONTACT HOURS AND INDEPENDENT WORK) to complete all the requirements of the unit/course/module?

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Hours PER WEEK (both CONTACT HOURS AND INDEPENDENT WORK) to complete all the requirements of the unit/course/module		
	Academics	Students
Architecture	67,63	89,76
Law	71,00	66,30
Nursing	34,99	57,25
Tourism	49,79	48,09

Respondent reported directly the total number of hours per week (both contact hours and independent work)

	%Academics saying yes to...		%Students saying yes to...	
	Planning the workload for your unit/course/module, consider necessary to include hours for independent work	Student's expectations and evaluation into consideration when planning the workload	Aware of the number of hours planned for the students for independent work	Professor guided you at the beginning of the unit/course /module on the necessary work load of each part of the Independent work
Architecture	97,56%	97,56%	60,19%	70,09%
Law	86,11%	83,33%	57,09%	86,94%
Nursing	75,81%	98,44%	60,00%	76,35%
Tourism	75,00%	86,36%	67,26%	82,32%