

Workshop on Dual Study Programs

01 September 2016 Industry – University Workshop on the Establishment of Dual Study Programs at GJU's main Campus in Mushaqqar



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1 EXECUTIVE SUMMARY

The German Jordanian University (GJU) intends to further strengthen its collaboration with the Industry. One important step on this way is to launch a Dual Study program, which responds to the needs of the Jordanian labor market, increases graduates' employability and boosts Jordan's economy. "Dual Studies" is an educational format inspired by the highly successful "Duales Studium" practiced in Germany. This was demonstrated by presenting different successful examples of Dual Studies from Germany (and from Palestine), which in various ways improved the regional economy. Being the second main event in the process of establishing this educational format at GJU and in Jordan, the workshop raised the interest of the Jordanian press and media, which were present throughout the gathering.

Dual Studies combine academic formation with intensive practical training at the workplace from a very early stage. GJU intends to start a pilot dual study program, giving the opportunity to a selected number of students to complete their Bachelor degree at GJU while at the same time being offered an apprenticeship, closely adapted to their degree, at one of the cooperating partner companies. The major advantages of this format are that this will not only largely enhance employability of graduates, but also trigger a mutual increase in quality for both the university and the industrial partners, as they can benefit from high quality teaching and research as well as mutual developed practical programs accustomed to the needs of the market.

To establish the prerequisites for a successful Dual Study program, GJU invited leading representatives from its partner companies to join a high-level workshop on 1st September on GJU's main Campus in Mushaqqar, in order to discuss the concept of Dual Studies and various aspects of their implementation at GJU. 44 company representatives, many of them CEOs, executive managers or members of their company's Board of Trustees, kindly accepted the invitation and engaged actively in plenary discussions and workgroups.

GJU aims at integrating the participating companies extensively in the set-up process of a pilot and potentially other dual programs, in order to ensure the success of this initiative. For this reason, industry partners were encouraged to share their ideas and concerns and to ask any question that might have been raised by the presentations given. In addition, a specific part of the workshop was dedicated to work in brainstorming groups and filling in a detailed questionnaire. The findings, and especially the recommendations in the participants' comments, will facilitate the establishment of a program that is truly adapted to the needs of the partner companies. Various participants from academia as well as from industry emphasized that such a project can only be successful, if both partners, companies and university show a clear and sustainable commitment. The overwhelmingly positive feedback, which the workshop received, encourages GJU to continue the chosen path towards the

creation of Dual Study programs with a distinct Jordanian flavor. GJU will follow up the recommendations and their implementation in due time.

2 BACKGROUND

The "University Industry Workshop on Dual Study Programs" took place on Thursday, the 1st of September, 2016 on GJU's main Campus in Mushaqqar.

It was the second main step on preparing for the implementation of such BA programs which are conducted in close cooperation with industry, i.e. large parts of the education take place in the facilities of the cooperating companies. Therefore, these programs are called "Dual Study Programs" This project is inspired by the guiding model of the successful German Dual Studies model ("Duales Studium") which integrates a traditional German apprenticeship with Bachelor Studies at a university.



The whole process is part of GJU's leitmotiv to enhance collaboration between local industry and the University, which pursues the aim of providing practically experienced and scientifically competent graduates qualified for the needs of the labor market.

"We are enthusiastic to cooperate!"

3 WORKSHOP OBJECTIVES AND METHODOLOGY

The workshops strived at establishing a communication platform between representatives of companies and GJU staff in order to present and discuss the potential of dual study programs by presenting success stories from other countries (Palestine, Germany) and including company's ideas, inspirations and concerns. The workshop's aims were the following:

- inform about the general idea behind "Dual Studies"
- present a possible structure for a pilot dual study BA program at GJU
- inquire which thematic fields would be most suitable for a pilot program
- get a better picture about companies' needs, desires and degree of involvement
- bring involved GJU academics and company representatives in touch
- discuss steps towards implementation.

The workshop was divided in two main parts. The first part consisted of a general overview, some examples and structures of a potential pilot program, and the second part asked the company representatives to take part more actively by uttering questions, participating in group discussions and filling in questionnaires.

After an overall introduction of Mrs. Britta Kähler, Director of GJU's Office for Industrial Links (OIL), GJU's President Prof. Natheer Abu Obeid highlighted in his welcome speech the importance of this project and GJU's readiness to support this innovative approach, Eng. Omar Maani, Chairman of Maani Ventures and representative for the industry section, underlined the importance of the execution of this initiative for Jordan and the whole region. In the following Randolph Galla, Dual Studies Advisor at GJU's Office for Industrial Links, gave the first part of his presentation about industrial and educational reasons to establish such kind of programs, followed by a general overview about their success in Germany, time frames, potential models and a range of probable benefits for Jordanian companies. Prof. Dorit Schumann, Vice President for International Affairs at GJU, took up Mr. Galla's aspect about the success of dual study programs in Germany by giving a deeper insight into its application and benefits, supporting her point by personal experiences. The last part of Mr. Galla's presentation was dedicated to presenting a similar initiative in Palestine, proposing potential study plans and preparing the audience for the second workshop part by introducing the main challenges that need to be responded to in cooperation with the industrial partners.

After a short coffee break, which offered the opportunity to socialize and network, the participants were given the opportunity to discuss their first ideas and concerns in the plenum. Then, "Brainstorming Tables" invited the participants to intensify the discussion in groups of 6 to 8 participants from different companies and university representatives. Proposed general features of the pilot program



helped the industry representatives to lead a deeper dialog and encouraged them to utter their needs and preferences. The last step was to fill in a questionnaire that served the purpose of getting an overall impression of the company's need, interest, perception and further steps to be taken for the establishment of a pilot program.

In total, the process can be described as offering an overview and a potential structure supported by successful examples from other countries, and enabling companies to take an active part in discussing and giving detailed feedback to encourage the cooperation in the creation of a dual study program, adapted to the industrial and educational needs of Jordan.

4 WORKSHOP AGENDA

| | AGENDA | | |
|--|--|--|--|
| 2:00 pm (15 min) | Welcome Prof. Natheer Abu Obeid, President GJU | | |
| 2:15 (5 min) | Introductory Note Eng. Omar Maani, Chairman, Maani Ventures | | |
| 2:20 (15 min) General Outline Dual Studies – Concepts, Challenges, Benefits Randolph Galla, Dual Studies Advisor, GJU | | | |
| 2:35 pm (10 min) | A Case Study from Germany Prof. Dorit Schumann, Vice President International Affairs, GJU | | |
| 2:45 pm (20 min) | Dual Study Programs at GJU (thematic fields for potential GJU programs, desirable structures) Randolph Galla, Dual Studies Advisor, GJU | | |
| 3:05 pm (15 min) | Coffee break | | |
| 3:20 pm (40 min) | Brainstorming Tables - Possible Shape of a Dual Study Program GJU+Companies Proposed General Features: 1) Duration min 4, max 5 years 2) App. 40% practical training in company, 40% theory at university, 20% soft skills/projects/thesis 3) Topics for study-projects and thesis provided by companies 4) Companies pay salary of 250JOD / month over entire duration of program 5) 6 month study and/or internship in Germany 6) Students to acquire good knowledge in German and English Discussion at Tables, based on short Questionnaire: A. Which elements of the proposed general structure meet consensus, which not? B. What would companies like to change or add? C. Do companies see the benefits in engaging in such dual study programs? D. Which thematic field would be most attractive for the present companies? E. How many students would each company probably accept per year in a Dual Study program? F. Further remarks and ideas | | |
| 4:00 pm (15 min) | Conclusions, Results and Continuation (follow-up on questionnaire) | | |
| 4:15 pm | Farewell | | |

5 PRESENTATIONS

5.1 Welcome Prof. Natheer Abu Obeid, President GJU

In his welcome speech, GJU's President Professor Natheer Abu Obeid explained the wider context of the workshop and stresses that the main mission of the German Jordanian University is to establish a model of intensive cooperation between academia and the Jordanian economy, following the model of applied academic education. This, he emphasized, is not an easy task in the given context in Jordan, and the German example cannot simply be copied, but has to be studied meticulously in order to adopt its suitable features and find



additional new solutions, which take the specific Jordanian context into account. GJU's German partner universities have been proven to be of great help in this respect, and GJU itself is motivated and eager to move ahead on this path, making it to not only an example of successful cooperation between university, industry and society at large (the President mentioned in this respect that GJU has

established a branch campus in a so far neglected area of Jabal Amman, which now is home to the School of Architecture and successfully helped to revitalize the surrounding neighbourhoods), but also establishing it as a real link between Jordan and Germany. One aspect of this strong connection is the fact that each student has to spend 20 working weeks as an intern in a company in Germany as a mandatory condition for graduation. The President further mentioned GJU's PIE program, which is geared to spread the spirit of entrepreneurship among GJU students. This program is unique among Jordanian universities, as is the newly-founded Industrial Relations Committee (IRC) of the University, whose task is to further develop the University's relation with the Jordanian economy and to advise the President on related strategic matters.

Having established important prerequisites, the University is now ready to enter a new stage: The establishment of dual study programs. This type of study programs will however only work if there is an intense collaboration with selected companies supporting the individual programs. The president expresses his expectation that GJU, together with its partners from industry, will be able to establish a new format in Jordanian higher education and probably for the region. Finalizing his introduction, he thanked the participants for attending this important workshop and especially Eng. Omar Maani for his great support in preparing the event.

5.2 Note by Eng. Omar Maani, Chairman, Maani Ventures

Engineer Omar Maani expressed his sincere thanks that the university is embarking on the topic of Dual Studies. Speaking from the point of view of the industry, he stressed that

companies are in need of better trained graduates and that involving the companies at an early point in students' education could deliver this kind of ready-for-the-job graduates industry is longing for. He is very convinced that the format of Dual Studies can generate students who upon graduation already possess all the skills and capabilities desired by the Jordanian industry. The success of the dual approach has been shown by the experiences made in Germany over several decades.

Eng. Maani also underlined that the enhancement of academic education is not only of interest for the companies, but also for the Jordanian society, as it is a means to fight youth unemployment, which is one of the biggest problems in contemporary Jordan. Companies and universities have a responsibility to educate young people in a way that they find easy access to employment and found new enterprises. In



the 1970s, 80s and 90s, Jordanian Engineers were really wanted in the Gulf area and in Saudi Arabia, but according to his experience, this has changed dramatically in the last decades. The current success of many companies in the Gulf and namely in Dubai nowadays is mainly owed to engineers recruited in Western countries. Thus, in order to regain competitiveness, the level of engineering education in Jordan has to be enhanced, and therefore, the students need to be exposed much stronger to the application of academic knowledge, and not only to theory like it is usually done in Jordanian universities. Dual study programs are a promising way to match this target because they make sure that students immediately understand how things work in the real work life environment through their inclusion the company's workflow on a consistent and regular basis. This is far more than usual internships can achieve.

"Graduates will be prepared directly to find a job and fit in it."

Of course, the realization of such a program does not deliver the desired results immediately. It has to be seen as an investment, which generates its full profit after some years. Therefore, Eng. Maani concluded, a long-term commitment of the involved companies is crucial for success.

5.3. General Outline Dual Studies – Concept, Challenges, Benefits Randolph Galla, Dual Studies Advisor, GJU

Mr. Galla's presentation, entitled "Dual Study Programs in general and at GJU. Why, How and What is in for us?" was divided in two parts, of which the first part will be covered in this section. The following statements refer to the information given by Mr. Galla during the presentation.

The presentation started with the aims of the workshop - informing about the concept of "Dual Studies", presenting a possible structure, getting an idea of companies' ideas,

participation and needs, providing a platform for a dialogue and discussing further steps. The first part referred to Jordan's industrial and educational needs and claimed that there is a gap between the academic education and the needs of the labor market. Therefore, it is necessary to develop educational formats that bridge this gap and suit the needs of the industry, pay more attention to innovation and



productivity and combat youth unemployment. One of the solutions would be to stronger link practical training in the industry with higher education, going beyond the format of internships. The expertise how to establish dual study programs is available and it has proven to be very successful in Germany, where, as in Jordan now, the needs of the labor market, especially a shortage of skilled employees in both theory and practice, were the trigger for the establishment of dual studies.

"Focus on what matters."

Dual Education is both geared to lower youth unemployment and enhance recruitment of qualified

In total, the experiences gained in Germany over the last two decades are very positive. Dual studies now are the fastest growing sector in German Higher Education, where Universities of Applied Sciences currently offer one quarter of their majors as dual studies. According to the companies, dual students are perceived to be highly motivated and ambitious. As the companies (and apparently the students as well) are very satisfied with the outcome, 73% of dual graduates still work in the sponsoring company after 3-5 years, and unemployment is almost non-existent among dual graduates.

staff. It also strengthens industry-university cooperation and makes it more effective.

After this first introductory part, a video with two examples was shown, depicting the opinion about dual studies by a leading representative of Cloos Welding Technologies and a leading representative of Siemens. The following part outlines the content of the video.

Klaus Arhelger, Head of Training Department CLOOS SCHWEISSTECHNIK:

We conduct very large training activities in our company and have students in dual study programs at the University of Technology (THM) Mittelhessen. We consider this as an excellent opportunity for young people, because already with the entry into professional training, we are following a path through which young people obtain academic degrees, in addition to their vocational qualification, fast and efficiently.

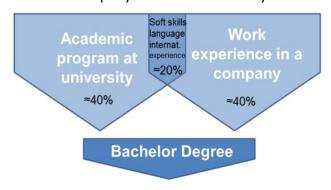
Johannes Amen, Head of Training Department, SIEMENS region central Hesse:
I manage the training of Siemens AG in central Germany. This region includes the federal states of Hesse, Rhineland-Palatinate, Saarland and Baden-Württemberg. Here

we train a total 220 young people in dual degree programs, in both commerce and technology. (...)

We could see clear win-win situations for universities, which receive pre-selected young people, steered by the companies, and for the students, who study and are trained in small or large companies. Concerning the dual study programs in Hesse, I wish that we manage to double the intake of students by 2020, as intended, and I gladly offer my support.

After the video testimonials, different models to integrate vocational and academic training were presented. There are basically two main models. One possibility is to combine the existing, well-developed training schedules at the company and the university and to

introduce a fully integrated program, which ends with two degrees. The more practical option is to launch a modified study program that is enriched with intensified practical phases in a company and follows the structure of e.g. 40% practice, 40% theory and 20% soft skills for the whole duration of the study program. This model would end with a single academic degree.



There are different possible time structures that can be adapted to the needs of higher education and industry in Jordan. The most common structure in Germany can be described as "alternating phases", which means that practice and theory change in three-months-shifts. Other options would be the "3+2 days model", where the students attend university for three days and then work for two days at the company, or the "practical semester/ semester breaks model", where practical semesters and theoretical semesters alternate to a certain extend and the students work in the company during the semester breaks additionally. Also mixed forms are thinkable.

The Dual Studies program entails multiple benefits for the companies. Dual students are directly and easily recruited and likely to be highly motivated and qualified, for which reason

"Companies engaged in designing of curricula."

it is easy to integrate them in the workflow. As they have an academic degree, with both practical experience in managing and problem solving and the ability to apply

theoretical knowledge, the reputation of the respective jobs, often regarded as being of a mainly blue collar type, will increase in comparison. Furthermore, companies would be enabled to become involved in the development of the curricula, which allows them to include current challenges and research interests into the academic training, e.g. though proposing projects or topics for theses. This would also provide access to innovations and their commercialization. Proposed research projects would also establish a new link between the university and the company, as new results trigger innovation in the industry. Secondly,

cooperating in research projects also have a cost advantage as it is cheaper to benefit from existing facilities at the university than establishing own research facilities.

This first part of the presentation aimed to provide a general overview. In the following, a short German case study was presented, before the second part of the presentation focused on the project to establish Dual Study programs at GJU.

5.4 A Case Study from Germany, Prof. Dorit Schumann, Vice President for **International Affairs, GJU**

GJU's Vice President for International Affairs, Prof. Dorit Schumann, who used to work on the development of Dual Study programs in her function as Vice President for Academic Affairs at Fulda University, Germany, introduced a case study from Germany to support GJU's ideas. She provided examples and presented a success story to the audience, starting with a broad introduction to Dual Studies in Germany and then focussing closer on Hesse and even closer on her former University of Applied Sciences in the town of Fulda.



She started by presenting a chart showing the number of students, dual study programs and companies involved in dual studies in Germany from 2004 to 2014. In all three domains the number has at least doubled. In 2014, there were almost 95.000 people studying in dual study programs in Germany, supported by more than 41.000 companies. Dual Study programs have more than tripled in these ten years and reached

a number of more than 1500. Prof. Schumann explained that this is still a relatively small figure in comparison with the total number of students in Germany, as dual students are mostly selected in a joint process by the companies and the universities, according to their qualification.

"Benefit from the German experience."

Dual education is said to be one of the fastest rising domains in Germany, which she also supported by a chart showing the rise of the number of Research Universities, "Fachhochschulen" (Universities of "Berufsakademien" (Universities Applied Sciences),

Cooperative Education), "DHBW" (Dual University of Baden-Württemberg) and further universities. According to a joint position paper issued by the DAAD (German Academic Exchange Service) and the Wissenschaftsrat (German Council of Science), the GJU is very likely to be a good starting point for spreading Dual Studies in the MENA region and worldwide, due to its focus on applied sciences.

Her second step was to narrow more on the federal state of Hesse, as in Germany educational questions are decided on the level of the federal states. One reason for the continuous improvement and success of Dual Studies is the cooperation between schools, higher education institutions and companies. To strengthen this cooperation, a "memorandum of understanding" was signed by the Chamber of Commerce, different universities and three involved Ministries of the federal state of Hesse, aiming to further focus on joint initiatives in higher education, trigger successful programs and to advance the definition of quality criteria. Prof. Schumann suggested a similar approach of defining quality criteria for Jordan.

In her last step, she focused on the university where she had been working before: the Fulda University of Applied Sciences. Dual Studies at Fulda university were established from 2012 onwards and are a great success story, because within only four years eight dual study programs could be launched (offering a place to study to 500 out of 8.000 students), partnerships with 100 companies have been established, which are constantly working also on other fields such as research. Out of the Dual Study programs that presently exist in Fulda, she chose Logistic Management to offer deeper insights, as she used to work in this field. She stressed that it is especially the combination of university and company, in this case in form of 3-months-alterning-phases, which make the program a unique success. This does not only apply to the traditional form of practical and academic work, but especially to blurring the

"Benefit from internship to solve problem or development."

boundaries. Students are encouraged to work on academic questions in their companies and on applied projects within their university.

Another point she presented to the audience referred to the nature of the partners. In contrast to the general perception, the Dual Study partner companies are mostly small and medium size companies in most federal states in Germany. In the case of her cooperation in the field of Logistics, cooperation with the House of Logistics and Mobility (HOLM) in Germany, there is however a link between all different sizes of companies in Germany. She stressed that GJU is already a partner of the House of Logistics and Mobility and aims at becoming a partner of similar different "Houses" in Germany. The Jordanian companies could also benefit from it as future Dual GJU students are likely to spend at least six months in a partner university in Germany and/or a company in Germany too, which would help the company to arrange an exchange with a cooperation partner or a branch.

In her conclusion, Prof. Schumann emphasized that the presented example is only a case study and not meant to be a blueprint for the GJU, but it was nevertheless crowned with success. She stressed that this example may give an idea how to launch a similar program in Jordan, but still the Jordanian model will be free to govern itself through the different possibilities according to its needs.

5.5 Dual Study Programs at GJU (thematic fields for potential GJU programs, desirable structures), Randolph Galla

The second part of the presentation introduced a case study from Palestine and offered a closer look at what a Dual Studies Program at GJU is aiming at. The Dual BA in Electrical Engineering at Al-Quds University in Palestine got very positive feedback according to an evaluation carried out during the first year of studies. In the evaluation, company representatives overwhelmingly stated that dual students are very motivated to learn, motivated to work hard, committed to team work and able to learn fast and perform well under pressure.



In the next part, Mr. Galla presented a potential structure and process for introducing a dual pilot program at GJU. GJU is aiming at a Dual Study program with a broad focus, offering possibilities for specialization through electives, and in industrial fields with a proven demand from the companies only. Another main point is to maintain GJU's high standards, as for example in respect to the

level of foreign language teaching and a continuation of the international exposure of all GJU students (German year). Finally, GJU is aiming at strengthening its partnership with the participating companies and therefore encourages them to take part in the set-up process from the very beginning. Concerning the curriculum, this would engender a slight reduction of the theoretical content in favour of the practical phases, which have to be included in the time schedule of the program, which should by no means exceed the usual duration of BA programs (5 years in Engineering, 4 years in most other specializations). A key point is to link

"Build up careers from scratch."

academic teaching closely with practical phases, so that recently gained knowledge can be applied immediately and effectively in the company and challenges experienced at the workplace be brought back to academia.

As it is of high importance to include the companies in the process of designing the Dual Study programs, developing the curriculum and evaluating the programs, they are invited to discuss which modules should be taught in any case, which need to be modified according to the practical phases and which ones can be left out or replaced by newly designed modules. Another main point is, according to the German dimension, a characteristic feature of GJU, to provide students with international experience. This does not only include language teaching in English and German and exposure to German academic staff on campus (flying faculty), but also a semester or a year abroad in Germany.

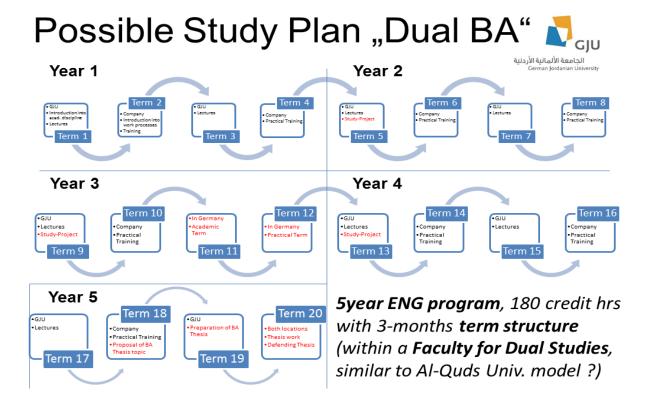
Mr. Galla then presented a possible study plan for five years, covering 180 credit hours, based on the structure of alternating phases with a duration of three months each, as illustrated below. Each semester starts with an academic term followed by a practical term so that every year is composed of two semesters including two academic and two practical phases (= terms).

The lectures in term one will be counted with app. 15 credit hours, and the students will be guided by their academic supervisors, but also be introduced to their vocational supervisors. This first term includes, apart from theoretical lectures, a general introduction to the university, its processes and structures and the academic discipline as such. During term two at the company, students will be guided by their company supervisors, and the training will be counted with app. five credit hours. In this term, the students will be introduced to the company and into the work practices and processes.

"Proposed balance between theory and practical and key/soft skills is great!"

In general, this structure applies to all other terms except the last semester (term 19 and 20), which is mostly

dedicated to thesis writing. There are some peculiarities though: The fifth, the ninth and 13th term for example include additional study projects carried out at GJU. As also the dual students should acquire international experience, they shall spend some time in Germany. In the presented draft study plan, this shall be realized in year three, of which term eleven could be used as an academic term at a partner university and term twelve could be carried out at a partner company in Germany. The last two terms mainly focus on the BA thesis. In the 19th term, the students would prepare their BA theses, which shall be worked on at both locations and eventually defended in term 20. (Please compare below graph "Proposed entry and exit phase for details".)



Year 1 with 4 terms



- Introduction to University and into the academic discipline
- Lectures (e.g. 15 credit hours)
- Meeting of acad. and voc. Supervisors

Term 1 at GJU

Term 2 at Company

- Introduction to Company and into work processes
- Training (credited with e.g. 5 credit hours)
- Meeting academic and vocational Supervisors

- Lectures (e.g. 15 credit hours)
- Meeting academic and vocational Supervisors

Term 3 at GJU

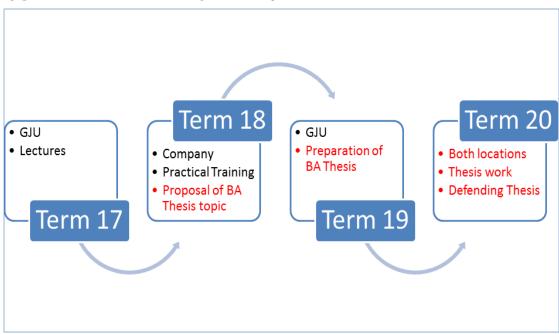
Term 4 at Company

- Practical Training (credited with e.g. 5 credit hours)
- Meeting academic and vocational Supervisors

etc.

Year 5 with 4 terms (graduation year)





Employment

Alternatively, the study phases could be modelled closer along the usual semester times. This would lead to a modified time structure and a slight reduction of the time students spend in the companies, but leave the content mainly unchanged.

Alternative Study Plan - along semesters



subsequent years

| 30.09. – | <u>Introduction</u> to company and university: | 2 days at GJU, |
|----------|--|--|
| 03.10. | Structures & processes, rules & | 3 in company |
| | regulations, Introduction of Advisors | |
| 04.10. – | Academic study phase I | In line with normal |
| 28.01. | (4 months) | GJU semester time |
| 05.02. – | Practical training phase A | Second semester |
| 31.05. | (4 months) | |
| | | |
| 03.06. – | Academic study phase II | GJU summer |
| 29.08. | (3 months) | semester (shorter) |
| | | |
| 01.09. – | Practical training phase B | Maybe at later stage |
| 28.09. | (1 month) | project (in company) |
| | | Same structure (except introduction week) in |

After an introduction to both university and company (1st week, only in year 1), each year would be composed of 4 months (spring semester) of academic studies (= phases I to X), followed by 4 months of practical training (= phases A – i), plus a study phase with a duration of three months (summer semester) and a practical training phase with a duration of one month. This schedule would have the advantage to be in accordance with the normal lecture times at GJU.

In order to illustrate how such a structure could be filled with content, Mr. Galla also presented an idea for a possible dual BA program called "International Manufacturing". This draft and the proposed courses (see the attached presentation for details) only served as an example to further illustrate the concept of dual studies. Topic and lectures are by no means meant to indicate a preference of the university – the topic for a pilot program shall be determined in cooperation with the partner companies.

The last part of the presentation was dedicated to lessons learnt from the Dual Study programs established at Al-Quds University (AQU) and main challenges that GJU and the companies in Jordan will probably have to tackle when embarking on the set-up of dual study

programs. In order to launch a successful pilot program in Jordan, it is important to consider Al-Quds' evaluation results, pointing at the need to provide companies sufficiently with information about taught courses and that individual educational plans for each student were considered by the companies to be very useful for the practical phases. Furthermore, there should be a greater focus on non-technical / soft skill courses, such as "Communication Skills", "English for Business", "Research methodologies", "Documentation", "Professional Organization, Attitudes and Ethics" or "Business Etiquette". It was furthermore underlined that it is crucial to provide the students with excellent guidance and a salary from the company throughout the program, and that a sound basis for continuous exchange between academics and companies has to be provided.

Taking these and other challenges into account, there naturally is a need to formalize relations between the main stakeholders, i.e. university, companies and students. Therefore, contracts between each company and the GJU and between the concerned company and each student

"We don't want students to join for the wrong reasons - Selection of students is very important!" have to be drafted and signed. It was stressed in this respect, that overall regulations should allow for individualized solutions between the concerned company and the student where

deemed appropriate. In any case, partners have to be aware that Dual Study programs are a long-term investment that needs continuous commitment with regard to time, money and staff.

6 BRAINSTORMING SESSION AND QUESTIONNAIRES

The second part of the workshop was dedicated to group discussions, which encouraged the industry partners to voice questions, concerns and ideas. For this end, participants were given appropriate time to discuss the presented ideas and to bring up new thoughts and suggestions

at 10 tables, at which participants merged in interdisciplinary groups of company representatives, members of GJU's Industrial Relations Committee (IRC), Deans and other GJU academics. To secure the findings of the brainstorming discussions and to enable GJU to work more effectively on the set-up process, the company representatives were asked to fill in the following questionnaire:

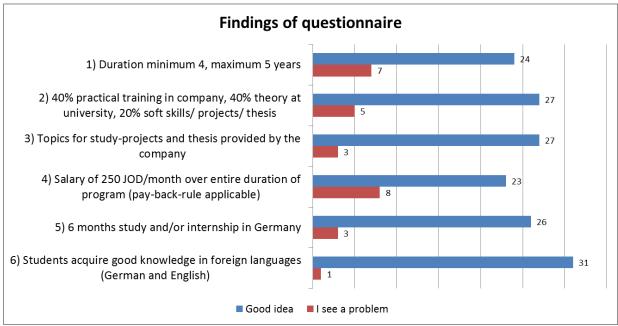


Brainstorming at Tables Please mark and fill in your comments, suggestions, critique, ideas

| Name, Company: | | | | | |
|---|-----------------|----------------------|--------|-------------------------------|---------------------|
| A. Which elements of the structure of a Dual Study program proposed below meet your consensus, which not? Why? Please mark and comment. | | | | | |
| 1) Duration mi | nimum 4, max | imum 5 year | s (de | pending on Schoo | l / topic) |
| Good | I see a | Comme | nts: | | |
| Idea | problem | | | | |
| 2) Approximately 40% practical training in company, 40% theory at university, 20% soft skills / projects / thesis | | | | | |
| Good | I see a | Comme | nts: | | |
| Idea | problem | | | | |
| 3) Topics for st | udy-projects a | nd thesis usu | ually | provided by comp | panies |
| Good | I see a | Comme | nts: | | |
| Idea | problem | | | | |
| 4) Companies pay a salary of 250 JOD / month over entire duration of program (which students pay back if they refuse an appropriate job offer from the company) | | | | | |
| Good | I see a | Comme | nts: | | |
| Idea | problem | | | | |
| 5) 6 month study and/or internship in Germany | | | | | |
| Good | I see a | Comments: | | | |
| Idea | problem | | | | |
| 6) Students to acquire good knowledge of foreign languages (German + English) | | | | | |
| Good | I see a | Comme | nts: | | |
| Idea | problem | | | | |
| B. What would you like to add? | | | | | |
| C. Do you see benefits for your company to engage in a dual study program as outlined above? | | | | | |
| Yes! Why? | | | No! | Why? | |
| D. Which them | atic field woul | ld be most at | tracti | ive for your comp | any? Please mark. |
| Manufacturing | Logistics | IT for Businesses | | Pharmaceutical Engineering | Other (please name) |
| | | | | | |
| E. In a suitable | Dual Study pi | rogram, my c | отро | any would probab | ly accept |
| students per year. | | | | | |
| F. Further remarks / ideas | | | | | |

The first couple of questions (A) asked for the company's statement on characteristics of proposed general structure of a potential "Dual Study program @ GJU" by either marking "Good Idea" or "I see a problem" and by giving further comments. The following points B and C gave the industry partners the opportunity to comment on the questions individually and become an active part in the creation process. Furthermore, companies indicated in which thematic fields they would be most interested in (D) and how many students they would potentially accept (E).

It should be mentioned that the input gained mainly serves to better steer the set-up process and is not meant to be binding for GJU or the companies. The final structure of a Dual Study pilot program will be decided upon jointly by the (group of) companies involved and the university. Taking into account that some questions weren't answered by a few companies, findings are as follows:



The table shows that GJU's suggestions meet the overall approval of the companies (A1). A large majority of the companies underlined the importance of the duration between four and five years and is even tending towards five years (in accordance with the legal regulations concerning the degree to be awarded). A few industry representatives preferred a shorter duration of two to three years though or a practical phase that starts at a more advanced point in time of the study program. Concerns were that it might be a challenge to integrate the student into the company already at the beginning of the study program and finding suitable tasks.

More than 80% of the industry representatives supported the model of a Dual Studies program consisting of 40% academic studies, 40% work experience and 20% soft skills/projects and thesis (A2). Especially the focus on soft skills and a sufficient amount of practical experience was approved by the vast majority of the companies, as they regard it as crucial for career success and for good performance of their employees. However, many argued as well that 30% practical training might be sufficient, also with a view on the necessity

to obtain the accreditation of the degree by the respective Jordanian authorities. A further criterion that needs to be taken into account in some of the companies' opinions is the accordance of the lessons at university and the application of the taught contents at the company.



More than 90% of the companies agreed that topics for study-projects and theses should be provided by the companies (A3), emphasizing their benefit for the company and the whole market. Nevertheless, some would have liked the university to take a more active part in defining topics and even more would prefer to involve the students in this process.

Whereas it was not controversial that students should receive a general remuneration, it was debated whether this remuneration should be paid continuously over the entire duration of the program or only during the practical phases at the company (A4). Also, some proposed an amount lower than the suggested 250 JOD/month, and some added that there should be an additional bonus for excellent performance. Concerns were for example the degree of loyalty or commitment by the student, relation of the amount in question towards the salaries of other employees and the amount in general. Nevertheless, many companies approved the idea by stressing that a clear contract stating the student's commitment and loyalty during and after graduation is crucial.

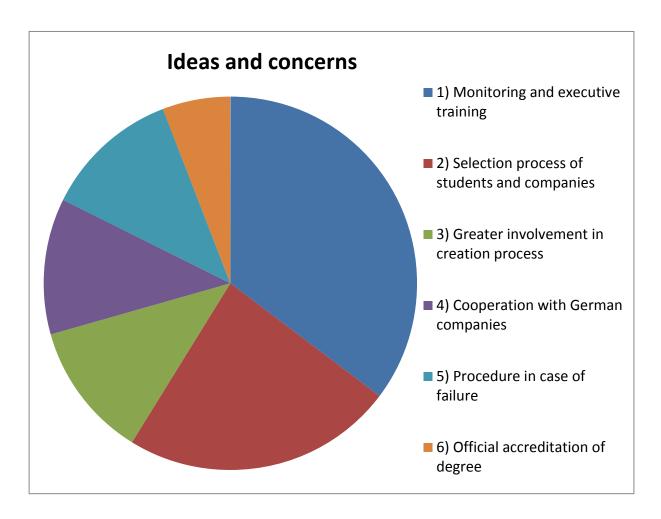
"Adjust the mindset of students. Will be an eye opener!"

The last two questions, which refer to GJU's German dimension, met with overall approval (A5). Almost 90% of the companies support the

idea of a six-month study and/or internship period in Germany. Even though most stressed its general importance, reasons were diverse. Some emphasized the need of the time abroad to realize a benefit for the company and even wanted to establish a partnership with the German company providing the internship or let students stay up to one year. Only few company representatives saw problems integrating the time abroad in the workflow of the company and the academic studies.

Acquiring knowledge in foreign languages, especially English and German, was considered essential by more than 95% (A6). Most companies focused on the importance of English as the international language of business.

The second, more general part of the questionnaire gave companies the opportunity to give further information on their ideas about Dual Study programs. The first question of the second part (B.) was named "What would you like to add?" The answers were multiple and not all answers can be covered in this report. The most frequent answers, however, are visualized in the following chart.



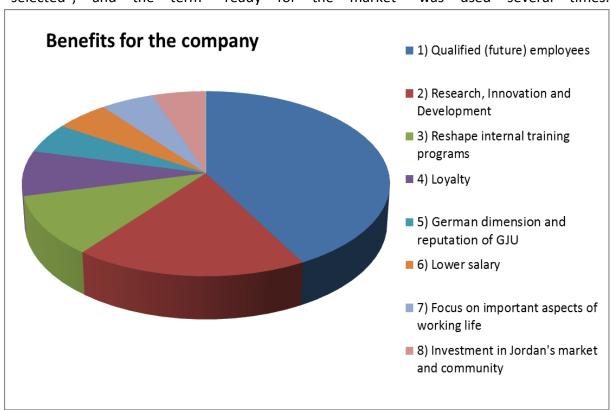
(B1) Most comments dealt with monitoring and executive training. The industry representatives were for example concerned about necessary structural developments and improvements within the companies in order to be able to provide good guidance for the students. Providing capacity building measures / executive training for companies was regarded by some representatives from industry as an area where GJU should be responsible to offer support or to acquire respective assistance from third sides. Others just demanded for a close partnership and possible assistance from GJU's side to ensure a benefit for all participating parties. The second most frequent idea and concern dealt with the selection process of students and companies (B2). Most comments were about introducing a strict selection process according to a number of agreed criteria, including interviews and providing evaluations. One company representative even demanded a selection process to choose qualified companies. Some company representatives also asked for greater involvement of the companies' demands in the set-up process and for more information (B3), e.g. through follow up workshops, about the Dual Studies initiative in order to ensure its success, as they perceive themselves to have a closer overview over the needs of the market.



Another idea was to collaborate closer with German companies (B4), as "it would be of immense value to guide the student to integrate the dual study program with the oversea module where she/he would do the overseas program in a mother company/ affiliate/ supplier in Germany and part of her/his work would entail bringing best practices and catalyzing change" (Petra Drug Store). A different concern that was dealt

with in multiple ways was the question of compatibility between the student and the company and procedures / consequences in the case of failure (B5). The "official accreditation of the degree" was another request that was uttered (B6). It was commonly agreed upon that the accreditation by both the Higher Education Council and the Jordanian Engineering Association (JEA) has to be ensured.

Part C of the questionnaire asked whether the company representatives see a benefit for their company to engage in a dual study program as outlined above. 100% of the companies agreed on this and substantiated this by mentioning a large number of advantages and positive outcomes of a dual study program. The majority of the companies saw their benefit in the nurturing and recruitment of "qualified future employees" and in increased capacity for innovation and development. Students were mostly described as "distinguished" and "selected", and the term "ready for the market" was used several times.



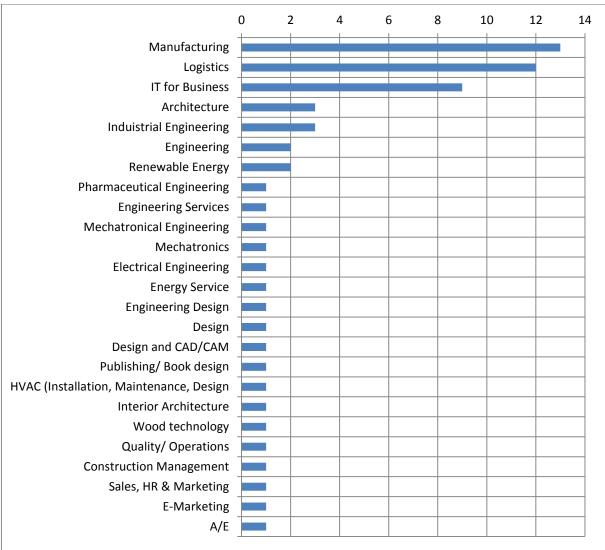
Industry representatives consider dual study programs an investment in improving their company by introducing innovative practices and systems learnt by the student, benefiting from research marketing and bringing new energy into the company ("research, innovation and development").

Another benefit was the possibility to reshape the internal training programs of the company. Furthermore, the employee's "loyalty", gained through the close contact between student and company over several years, was named as a major advantage.

Some companies also mentioned GJU's reputation as a very good university and the German year as major benefits.

Last not least, the comparatively modest remuneration of the students seems to be a benefit for some companies, as it is lower as the salary of full employees.

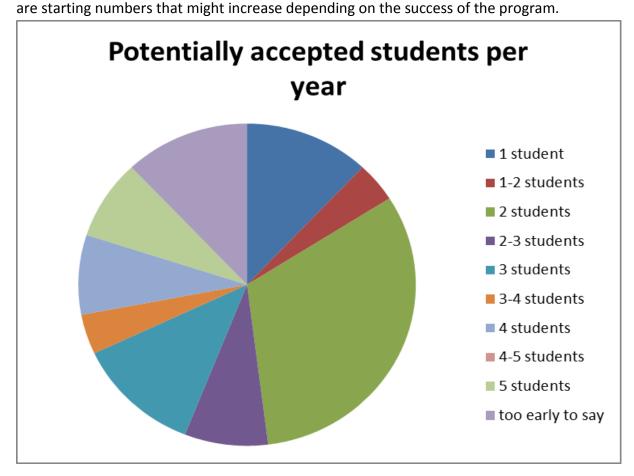
Part D of the questionnaire dealt with the thematic fields that would be most attractive for the company. The following chart depicts the findings.



Most companies were clearly interested in the options "Manufacturing", "Logistics" and "IT for Business". Interestingly, many companies added further ideas, showing that there is a demand in more than one field. 13 representatives of the participating companies would be

interested in Manufacturing, 12 in Logistics and 9 in IT for Business. The other answers were multiple according to the different branches of the companies and rank from Design, Engineering (with a notably broad array of specializations) and Architecture to Marketing.

Question E asked the company representatives to indicate (in a non-binding way) how many students their company would possibly accept, presupposing a suitable Dual Study program. The following chart depicts the answers. Relatively few companies indicated that they could accommodate only one student per year. Approximately one third of the company representatives would like to accept two students per year and even more could imagine accepting more, in some cases even up to 5 students annually. Some participants also added that the numbers they indicated



Finally, the questionnaire gave room for further remarks and ideas (F). Many representatives from industry indicated gratitude for GJU's initiative and stressed the need for this kind of study programs for their companies and for the region, as well as their strong intention to be part of it. Some of the answers were concerned about students not respecting the rules of the company, the official accreditation of the degree, special lectures to prepare for the practical training, a stronger cooperation between the university and the companies and ways to monitor / evaluate the progress of the students. Other remarks where about the duration of the establishment process and the need for further information about the program and follow-up workshops.

7 CONCLUSIONS

Summing up, it may be said that the Dual Study initiative was perceived very positively. A majority of the company representatives agreed with the key points of the program as proposed by GJU (summarized in the first part of the questionnaire) about the length, the relation of academic and practical parts, the focus of study and graduation projects, the German semester/year and the need for sound competencies in foreign languages. The one question that was more controversial was about the amount of remuneration. As the remuneration students should receive is as such a strong binding element between company and student, it was not questioned as such, but the amount and the periods of payment were discussed controversially. Still, approximately two thirds of the company representatives agreed with the proposed amount of 250 JOD over the entire duration of the program. The companies were very active in taking their part and adding further ideas and concerns. All participants saw clear benefits, for a multitude of reasons. Many companies were mostly interested in Manufacturing, Logistics, IT-Business and various sub-disciplines of Engineering, but also added a wide range of additional potential majors. A large majority would accept two students or more as a starting point and might increase take in according to the success of the program. Further remarks mostly emphasized the need for such a program in Jordan and asked for further, information, draft contracts / regulations and follow-up workshops. It was pointed out by GJU's President and by various participants from industry that a pilot program has to be neatly adapted to the industrial and educational needs of the participating Jordanian companies. All comments of the company representatives will duly be taken into



consideration in the process of establishing a pilot dual study program at GJU, ensuring the success of the program, once launched and, more generally, in further enhancing cooperation between GJU and industry. GJU is ready to further advance in the setup process and is glad to enjoy the strong support of important representatives of the Jordanian industry.

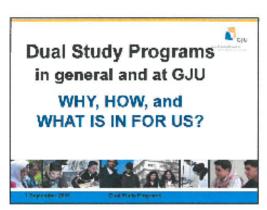
8 NEXT STEPS

GJU will follow up the recommendations and their implementation and therefore intends to take the following steps in due time:

- Meeting with the GJU's President and academic staff to discuss the most wanted thematic fields and their feasibility for a Dual Study BA program and to agree on further steps
- Decision on the nature of a pilot program
- Establishment of a Dual Study Set-up Committee, composed of academics, administrative staff, representatives of companies
- Preparation of information and promotional materials
- Invitation of interested partner companies for a follow-up meeting
- Drafting of model contracts between University and Company and between Company and student
- Involvement of important external stakeholders (professional associations, Chambers, Accreditation Board etc.)
- Drafting of an application scheme for companies to join the program
- Preparation of a draft for personalized educational plans for students
- Site visits at companies
- Applications for additional funding to support the project

9.1. PowerPoint Presentation





Aims of this Workshop



- 1. Inform about the general idea behind *Dual
- 2. Present a possible structure for a pilot dual study BA program
- 3. Get a better picture about companies' needs. desires and degree of involvement ("market
- 4. Bring involved GJU academics and company representatives in touch
- 5. Discuss steps towards implementation

Content



- Industrial and Educational Needs
- Drivers to implement Dual Studies
- Positive Experiences made in Germany
- Integration of Vocational + Academic Training, a. typical Structure of Dual Study Programs.
- Bonoirs for Companies
- Positive Experiences made in Palestine
- Which Programs, which Curricula here in Jerdan?
- 2 Suggestions for Dual BA Study Plans
- A proposal for a new Dual BASSGJU.
- Lessons Learned
- Main Chaltenges

Industrial & Educational Needs 🖏



- · Gap academic education labour market
- · Necessity to
 - o create new jobs, according to needs of industry
 - o become more innovative and increase productivity
 - o combat youth unemployment
- > combine practical training in companies with HE:
- Expertise is available.
- Dual Study programs very successful in Germany, main reason for low rate of youth unemployment

Dual Studies - drivers



- · Establishment of dual studies in Germany was a reaction to needs of the labor market
- Main driver was and still is a shortage of employees with sound skills in practice and theory
- Proven to be effective
 - to recruit ambitious staff for middle management positions, and
 - to enhance industry-university cooperation

Positive Experiences in Germany



- · Dual Studies = fastest growing sector in German HE. Demand is raising constantly
- German Universities of Applied Sciences offer one quarter of their programs as Dual Studies, 10% of their students are enrolled in dual programs
- Companies highly satisfied with outcomes, most students employed directly after graduation
- 3 5 years after graduation, 73 percent of dual graduates still work in sponsoring company

Opinions of two German Entrepreneurs



- Mr Arheiger from Clooks Welding Technologies.
- Mr. Amen from Siernens

briefly report on their experiences with Dual Study

(Short video with English subtitles)

Ways to integrate Vocational and Academic Training

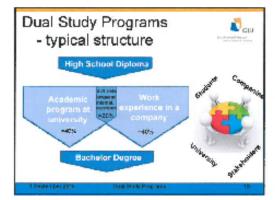


Main models:

- 1) Fully integrated combined program (academic & vocational training completely matched) = 2 degree
- 2) Study program enriched with intensified practical phases in a company (app. 40 % practice / 40 % theory / 20 % soft skills) throughout the duration of the study program = 1 degree (academic)

Possible time structure:

3+2 days model" / "alternating phases" / "practical semester / semester breaks" / mixed forms



A first Summary: Benefits for Companies 1



- · Highly motivated, highly qualified students
- Building of strong relation ship company student ('glue factor')
- · Fit-for-purpose graduates (integration in workflow)
- · Staff with practical experience, able to apply theoretical knowledge directly, for managing and problem solving
- Direct and easy recruitment of middle management

Benefits for Companies 2



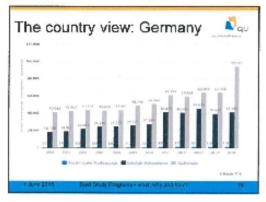
- Be actively involved in curriculum development
- · Include challenges / research interests into academic training through projects / theses / interaction
 - Implementation of student projects in university and company makes academic resources available to companies
- Access to ongoing academic research.
 - Become aware of innovations, commercialize
- · Cooperate in research projects
 - Cheaper than establishing own research facilities

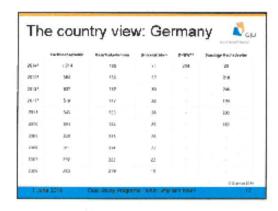
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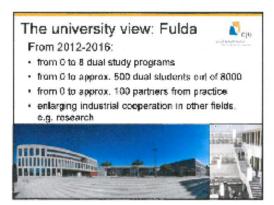












The university view: Fulda Realization:



- High support from city, chambers, ministries, presidency. schools, enterprises and other organizations
- · Practice integrated (no vocational training)
- · Most of them in block model: three months in enterprises and three month at university
- Enterprises and organizations pay an amount of 200-250 Euros to the university and a small salary to the students; contracts
- Cooperation with GJU
- · High employability, more than 90%



Partners from practice: Logistics - Blichel CmbH & Co. / Kohlhesp Logistik G~ bH Fahrzeugte leiabrik K/S - Rhenus SE & Co. KG



vin 💆

- 36 Smith Packaging Deutschlend Sittling & Co. K.S. FDAG Preduden Soldnes GroH & Co. KG
- Friedrich Zufall GmbH & Co.
- GO: Express & Logistics Alafeld Gm#11
- · Hans Gels GmbH Co KG
- John Spedilion GmbH
- R + S so utions Ho ding AS
- Rucolph Logistik Gruppe
- Spedition Heldelmann GmbH
- tegut. gute Lebersmittel GmbHl 2 Co. KG
- VTL Vernettre-Transport-Logistic
- timies
- Wassermann Technologie GmeH
- PLUS HOLM-Paranets





(Back to the region) **Dual Studies** in Jordan / at GJU: HOW?

Like Claim? Matthe wind which have

Positive Experience of Palestinian Companies



Dual BA Electrical Engineering at Al-Quds Univ. first year evaluation by participating companies identified following strengths:

Dual students are

- · eager to learn,
- · motivated to work hard,
- · committed to team work,
- · learn fast and under pressure.

(Source: Evolution of AOH Dunit Study Program: Electrical Engineering)

Which kind of programs should we aim at?



- · Offer dual programs in fields with a proven demand only
- · Involve companies from the start
- · Prefer programs with a broad focus (instead of very specialized ones).
- Possibilities for specialization through electives
- Maintain high standards, don't weaken GJU reputation

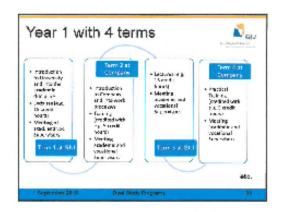


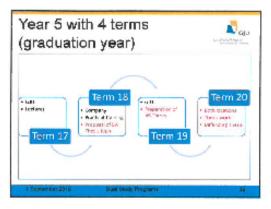
...and which kind of curricula? 💵 🐷



- · Theoretical content a bit less, to accommodate practical phases
- Academic teaching linked to practical phases
- . Discuss modules with industry: which ones to include, which ones to modify, which ones to leave
- Provide students with International experience
- · Include companies permanently in decision making, curriculum development, evaluation

Possible Study Plan "Dual BA" 💦 " Syear ENG program, 180 credit his with 3 months term structure (within a Faculty for Dual Studies, similar to Al-Quits Unix model ?)

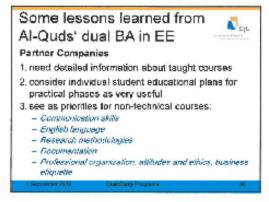












Main Challenges



- Consider Dual Studies as a long term investment
- > Sustainable commitment (time, money, staff)
- > Set up contracts Company-GJU, Company-sludent
- Establish continuous exchange between academics and company trainers
- Match training at GJU and in companies (further develop apprenticeship regulations, train-the-trainer support etc.)
- Provide students with excellent guidance and salary from companies throughout the program

1 September 2016 Qual Study Programs



9.2. Summary Results of the Brainstorming Session

Results Brainstorming Session, 01. September 2016, 3:20 - 4:00pm

Possible Shape of a Dual Study Program GJU + Companies

Discussion of proposed general features, based on short questionnaire

(Companies' and ACI responses¹ only)

1) Duration minimum 4, maximum 5 years (depending on School / topic)

| Good Idea: 24 participants | I see a problem : 7 participants |
|---|--|
| Comments: | Comments: |
| (+) has to be between 4-5 years, the duration of practical / academic makes sense (Maisam Architects & Engineers) | (-) too early to engage in company. Should get more acquainted at school about topic (FARIS&FARIS) |
| (+) according to topic; within available topics 4-5 is okay (n.n.) | (-) maybe start from year 3+4 (Jabal Amman Publishers) |
| (+) can be longer, should be based on target | (-) last 2 years is better (Nuqul) |
| achievements (Symbiosis) | (-) 3 years might be better, so students in |
| (+) more towards 5 years (JORAMCO) | their 1st year is to introduce them (KADDB) |
| (+) 5 years (ACES) | (-) max. 2 years (Grant Thornton) |
| (+) first year might be a challenge, not sure | (-) commitment with the company, but the |
| what tasks students would be able to do -> | time intervals are not continuous (Izzat |
| selection of students is very important (Aramex) | Marji Group) |
| (+) distribution of time has to be studied well | |
| (Petra Eng. Industries) | |
| (+) students have to be chosen (Maani) | |

¹ All quotes left unchanged and representing individual, non-binding statements of the participants only. Errors in the transcription of participants' handwriting may occur.

2) Approximately 40% practical training in company, 40% theory at university, 20% soft skills / projects / thesis

| Good Idea: 27 participants | I see a problem : 5 participants |
|---|---|
| Comments: | Comments: |
| (+) the balance between theory and practical and key/soft skills is great (n.n.) (+) reasonable balance (SYMBIOSIS) (+) practical training and soft skills are important for career success (IZZAT MARJI) | (-) not necessarily a problem. Yet to lessen the businesses, split responsibility: 50%, 30%, 20% (Steel Buildings Co. Ltd) (-) 30% practical, 50% theory, 20% soft skills (Maani Group) |
| (+) we should start with 20% soft skills too at | (-) 30% practical (Grant Thornton) |
| company (Amman Chamber of Industry) (+) good idea if the practical is covered in the academic and vice versa (Maisam Architects & Engineers) (+) ok as long as the degree is accredited. Maybe less practical training - would be easier to get the degree accredited. (Aramex) | (-) there might be many challenges for the students beside companies to support the students (KADDB) |
| (+) maybe less practical, 30%, and 50% theory to cover the basic theory required (JORAMCO) | |
| (+) it depends on the field of business (Petra Eng. Industries) | |
| (+) the practical adoption of the progress within the company is a concern (Amin Kawar and Sons Co.) (+) how to ensure that work done at company was of value? (FARIS&FARIS) | |

3) Topics for study-projects and thesis usually provided by companies

| Good Idea: 27 participants | I see a problem : 3 participants |
|--|--|
| Comments: | Comments: |
| (+) market needs driven project (IZZAT MARJI GROUP) | (-) usually provided by university (Grant Thornton) |
| (+) thesis more realistic and benefit for market (FARIS&FARIS)(+) for the company to benefit from students thesis for R&D (Steel Buildings) | (-) do this in collaboration with the university (Aramex)(-) not practical for students, but good for company (SYMBIOSIS) |
| (+) this goes without saying, with the level of involvement it should mark first (Maisam Architects & Engineers) | |
| (+) some related to electives (Petra Drug Store) | |
| (+) has to be jointly identified (ACES) | |
| (+) can also be provided by the student if it is a new idea (Amman Chamber of Industry) | |
| (+) has to be agreed between university and student (Maani Furniture Co.) | |
| (+) sure, but maybe have a part of decision with the student (n.n.) | |

4) Companies pay a salary of 250 JOD / month over entire duration of program (which students pay back if they refuse an appropriate job offer from the company)

| Good Idea: 23 participants | I see a problem : 8 participants |
|---|---|
| Comments: | Comments: |
| (+) fair and makes sense. Number can be studied (FARIS&FARIS) | (-) average 200 - 250 JD (DHL Express) (-) could be lower (Grant Thornton) |
| (+) fair (Symbiosis) (+) in general a good idea, but not sure | (-) financially wise not good on short terms, especially if the student is good (KADDB) |
| about amount (n.n.) (+) with commitment after graduation (Izzat Marji Group) | (-) only during practical training. Salary must relate to company salary scale or benchmarking to a salary survey (JOJAMCO) |
| (+) with contract (Maani Ventures) (+) but with maximum one year after graduation (Maani Group) | (-) salary should be paid only during work months (Steel Buildings) (-) pay for the practical training (ACES) |
| (+) also a bonus for students based on performance (Maani Furniture Co.) | (-) is there any commitment for the students to work with the company after graduation, |
| (+) better if the salary does not exceed the max. allowed for a part-timer. This is to avoid having to register the student as an employee (Aramex) | let's say for 1 year (Coca Cola) (-) I think commitment from both sides will be doubtful (Petra Eng. Industries) |
| (+) 250 is much (Amman Chamber of Industry) | |
| (+) max. 200 JD (Backaldrin) | |

5) 6 month study and/or internship in Germany

6) Students to acquire good knowledge of foreign languages (German + English)

| Good Idea: 31 participants | I see a problem : 1 participant |
|--|--|
| Comments: | Comments: |
| (+) it should be compulsory (ACES) | (-) I think English is enough (Amman |
| (+) the more the better? (Maisam Architects & Engineers) | Chamber of Industry) |
| (+) a must (n.n.) | |
| (+) yes, it's a must, at least English (DHL Express) | |
| (+) a must, English at least (KADDB) | |
| (+) maybe two languages are too much? (Maani Furniture Co.) | |
| (+) communication in English is critical (SYMBIOSIS) | |
| (+) English is a must (Aramex) | |
| (+) mostly English (Steel Buildings) | |
| (+) English (JORAMCO) | |

B. What would you like to add?

- Program has to obtain accreditation from the Higher Education Council and JEA (ACES)
- Consider certain criteria to be applied to companies, which are chosen as part of the program. (Amin Kawar and sons)
- Closely monitoring both company and students. Industry must be developed enough to receive this program. (Maani Furniture Co.)
- The systems really need to have a stringent in filter filtering the right companies allow to do this (n.n.)
- Assist companies to establish proper internship programs. (Amin Kawar and sons)
- (Think about) Student/Company compatibility, University/Enterprise coordination (FARIS&FARIS)
- It has to be clearly structured (Maani Furniture Co.)
- Engage companies to discuss program curriculum and modify it to satisfy the market. (Tahboub)
- Suggest large blocks of practical and large blocks of education. Constructing each as an example. (JORAMCO)
- Maybe the program with the company is more practical for the last 3 years when the student is more mature (Jordan Steel)
- Research and experimental projects with undergraduates (Maisam Architects & Engineers)
- Many skills should be part of a checklist and progressively. Structure of work experience (SYMBIOSIS)
- Provide evaluation for the student in order to observe and follow up with his development (Freudenberg Vileda)
- The success of the program and for the company to see the benefit depends on the
 caliber of the student. There should be a strict selection process and the company to do
 an interview to accept him/her, especially as there is a salary to be paid, so we don't
 want students to join for the wrong reasons. (Aramex)
- It would be of immense value to guide the student to integrate the dual study program with the overseas module where she/he would do the overseas program in a mother company/ affiliate/supplier in Germany, and part of his work would entail bringing best practices and catalyzing change. (Petra Drug Store)
- High commitments from students and business ethics (DHL Express)
- Can they become very ultimate in both? (Maani Ventures)
- What if we were not happy with the performance of the student? (Jabal Amman Publishers)
- Think of the students' health insurance (Steel Buildings)
- More awareness for industry and trade about the program (Petra Eng. Industries)

- Suggest GJU to reciprocate with company by providing executive training (JORAMCO)
- There should be more brain storming and introduction sessions with companies. Also since the faculty staff will be involved this effort has to be counted into their promotion, so they put good time into it. (KADDB)
- I think this is good for companies for their CSR plans and to have better talents (IZZAT MARJI GROUP)
- Find equation that all parties will benefit from the program finally (Maani)

C. Do you see benefits for your company to engage in a dual study program as outlined above?

No! 0

Why? (n.a.)

Yes! 30

Why?

- 100 reasons (Maani Ventures)
- Have qualified and good candidates from a well-known university that can be of a good value on the long term (Freudenberg Vileda)
- Graduates will be prepared directly to find a job and fit in it (Tahboub)
- To have ready-skilled employees and having researchers (Izzat Marji Group)
- Engage in research, guaranteeing good future employees (FARIS&FARIS)
- Setting students ready for the work market (Jabal Amman Publishers)
- Develop the future of our employees (Kawar Engergy)
- R&D. They would have a correcting factor to the practices at companies (Maani Furniture Co.)
- Good employee base (JORAMCO)
- Educated personnel and employees' loyalty (Steel Buildings)
- You can build up the career from scratch (DHL Express)
- Access to distinguished students (Grant Thornton)
- Let students focus more on what matters (KADDB)
- We already employ graduates from dual and they are more exposed (SYMBIOSIS)
- We are facing problems with non-relevant new-graduates (n.n.)
- Having fresh students with energy and pay less to them
- Benefit from them in a certain cheaper aspect, i.e. research marketing

- We need specialized engineers in the steel industry (Jordan Steel)
- We invest a lot in fresh graduates (Maani Furniture Co.)
- It will reduce the internal training program that we have in the company (ACES)
- Engaged in designing of curricula and selection of people (Nuqul group)
- Benefit from the German experience (Petra Eng. Industries)
- Build loyalty, recruiting, benefit from new systems learnt at university (Amin Kawar and Sons)
- Recruitment costs, loyalty, engineering (Maisam Architects & Engineers)
- To enhance the student level (Grant Thornton)
- To invest in community building and individual development, however, still needs study from our side to decide. (Coca Cola)
- Skills → officer (Backaldrin)
- Improve recruitment output and CSR (IZZAT MARJI GROUP)

D. Which thematic field would be most attractive for your company? Please mark.

| "Most wanted" | Engineering disciplines | Other disciplines mentioned |
|--------------------------------|----------------------------|-----------------------------|
| 13 x Manufacturing | 3 x Industrial Engineering | 1 x Design |
| 12 x Logistics | 2 x Engineering (general) | 1 x Design and CAD/CAM |
| 9 x IT for Businesses | 2 x Renewable Energy | 1 x Publishing/ Book design |
| 3 x Architecture, plus | 1 x Pharmaceutical | 1 x HVAC (Installation, |
| 1 x Interior Architecture | Engineering | Maintenance, Design) |
| 1 x Architecture & Engineering | | |
| 1 x Construction Management | | |
| | 1 x Mechanical Engineering | 1 x Quality/Operations |
| | 1 x Electrical Engineering | 1 x E-Marketing |
| | 1 x Mechatronics | 1 x Sales, HR & Marketing |
| | 1 x Biomedical Engineering | 1 x Wood technology |
| | 1 x Engineering Services | |
| | 1 x Energy Service | |
| | 1 x Engineering Design | |

E. In a suitable Dual Study program, my company would probably accept xx students per year.

| Nr. of students | Nr. of companies | Nr. of students | Nr. of companies |
|-----------------|---|---------------------|--|
| 1 | 3 (Freudenberg Vileda, Kawar Energy, Aramex) | 1-2 | 1 (Faris&Faris) |
| 2 | 8 (Maani Furniture Co., Petra Eng. Industries, Petra Drug Store, Maisam Architects & Engineers, Jordan Steel, Izzat Marji Group, Jabal Amman Publishers, Steel Buildings, n.n.) | 2-3 | 2 (Symbiosis, Amin Kawar and Sons Co.) |
| 3 | 3 (Grant Thornton, JORAMCO, DHL Express) | 2-4 | 1 (Nuqul Group) |
| 4 | (ACES, Tahboub) | 4-5 | |
| 5 | 2 (KADDB, Maani Ventures) | too early to say | 3 (Coca Cola, Al-Zaytunah for Chocolate, Backaldrin) |

Please note: Some companies indicated that the given numbers should be considered starting numbers, which might increase according to the success of the program. Some also indicated that they have to double check with the company before indicating a number.

F. Further remarks / ideas

- Extremely important program, we are enthusiastic to cooperate. Thank you! (Nuqul Group)
- The students that are sent to companies are obliged to follow the company's internal policy, rules and regulations upon employment (Freudenberg Vileda)
- Engaging the faculty members more into the market-updates (Kawar Energy)
- The six months study in Germany to have practical training in the steel industry (Jordan Steel)
- Industry could be more preferable the 3days-2days model; could be start not from first year (Amman Chamber of Industry)
- Monitoring or evaluation of student-gained knowledge at the company, to ensure that 40% of study did not go to waste (FARIS&FARIS)
- Needs more sessions to develop the idea more and get feedback from higher manager level (KADDB)
- A lot of work still has to be done (Maani Ventures)
- Please look at the professional accreditation of a training architect for good outline of coordinated practical experience. We need to also pick the caliber of student/talent early on, as some truly do not fit in the profession (SYMBIOSIS)
- Thanks for the great idea (DHL Express)
- Thank you for a great idea! That is much needed ☺ (n.n.)
- Great idea! (Jabal Amman Publishers)
- Thank you! (Amin Kawar and Sons)
- Thanks, maybe student must take lectures in university before heading to companies,
 e.g. CAD/CAM & Ethics (Maani Group)
- Thank you! (Maani Furniture Co.)

9.3. Selected Press and Media Releases

9.3.a Petra Jordan News Agency, published 01 September 2016:

...http://pctra.gov.jo/Public_News/Nws_NewsDetails.aspx/Site_td=2



ورشة عمل حوك البرامج الدراسية المشتركة بالجامعة الألمانية الأردنية

ماديا الأول من أيلول (بترا)- نظمت الحامعة الأنمانية الأردنية اليوم الخميس ورشة عمل متخصصة حول البرامج الدراي الصناعي والجامعة الألمانية الأردنية بمشاركة ممثلين عن حوالتي سنعين شركة من كبري الشركات الصناعية والخد

وتهدف الورشة التي تقديم فكرة زيادية في التعليم الغالبي الأردني تحاكي التموذج الألماني في التعاون بين القطاعة والجامعات،

وأكد رئيس الجامعة الدكتور نظير أبو عليد دور الجامعات في "سياق ما يعرف بالاقتصاد المعرفي" يدعم التنمية الاقتم إصافة التي مشاركتها في التعليم والمعرفة.

وبين ان الجامعة الألمانية الأردنية انتهجت النعنيم البطبيقي على غرار الجامعات الألمانية خيث نقف اليوم كالمبارة ا والعالم الغريق من خلال ألمانيا والتجسير بين التعليم وسوف العمل المحلي.

من جهته بين المهندس عمر المعاني ان فكرة البرامج المشتركة تقنير فكرة ريادية وحديدة وتخطى باهتمام عالمي ا والقطاع الصناعي بطلبة متخصصين في نفس محالات الشركات.

وعرض الخبير الألماني راندولف غالا للتحرية الألمانية في الشراكة ومسودة المسروع المفترح للبرامج الدراسية المنا الشركات رؤيتهم للمشروع ليصار التي تطبيقة في المستقبل القريب.

يّشار التي ان فكرة المشروع تتلخص في لجسير الفجوة بين الشركات الصناعية والتجارية والحامعات من خلال زيادة ا يحيث يتمكن الطالب الجامعي من الدراسة لمدة زمنية معينة في الجامعة ويعمل نفس الفترة في إحدى الشركات ا أبّف ج 06:21 - 1/9/2016 م

«الألمانية الأردنية» تنظم ورشة حول البرامج الدراسية مع القطاع الصناعي

□ عمان - الدستور - نيفين عبد الهادي

نظمت الجامعة الألمانية الأردنية أمس ورشة عمل متخصصة حول البرامج الدراسية المشتركة بين القطاع الصفاعي والجامعة الألمانية الأردنية بمشاركة ممثلين عن حوالي سبعين شركة من كبرى الشركات الصناعية والخدمية في الأردن.

وتهدف الورشة الى تقديم فكرة ريادية في التعليم العالي الأردني تحاكي النموذج الألماني في التعاون بين القطاعين الصناعي والتجاري والجامعات .

وأكد رئيس الجامعة الأستاذ الدكتور نظير أبو عبيد على دور الجامعات في دسياق ما يعرف بالإقتصاد المعرفي، بدعم التندية الأقتصادية والإجتماعية للمجتمعات، إضافة الى مشاركتها في التعليم والمعرفة. وبين أن الجامعة الألمانية الأردنية انتهجت التعليم التطبيقي على غرار الجامعات الألمانية حيث تقف اليوم كالمنارة للتجسير بين العالم العربي والعالم الغربي من خلال ألمانيا والتجسير بين التعليم وسوق العمل المحلى.

من جهته بين المهندس عمر المعاني ان فكرة البرامج المشتركة تعتبر فكرة ريادية وجديدة وتحظى بإهتمام عالمي لأهميتها في رفد الشركات والقطاع الصناعي بطلبة متخصيين في نفس مجالات الشركات.

ولفت الى موقع الجامعة المتميز وتأثيرها بالبيئة المحلية مثل دارة. عثمان بدير للريادة والإبداع، وتأثيرها الأيجابي على البيئة المحلية وما أحدثته من نقله نوعية في جبل عمان وشارع الرينبو.

وعرض الخبير الألمائي راندواف غالا للتجربة الألمائية في الشراكة ومسودة المشروع المقترح للبرامج الدراسية المشتركة ،فيما قدم ممثي الشركات رؤيتهم للمشروع ليصار الى تطبيقه في المستقبل القريب .

Projected programme to offer university students practical experience in parallel to theoretical education

III jordantimes.com/news/local/projected-programme-offer-university-students-practical-experience-parallel-theoretical

9/3/2016



Randolph Galla, dual studies adviser at the German-Jordanian University's Office of Industrial Links, delivers a lecture at the university, on Thursday (Photo courtesy of GJU)

AMMAN — Students at the German-Jordanian University (GJU) may have an opportunity to enrol in dual study programmes (DSPs) to acquire practical experience parallel to their theoretical education.

The GJU's Office of Industrial Links (OIL) on Thursday organised a workshop to brief faculty members and representatives of some 70 major companies on DSPs for bachelor's degree students, which the university is planning to launch in the near future.

Randolph Galla, dual studies adviser at the OIL, delivered a presentation on DSPs, which, he said, could help narrow the gap between higher education outcomes and labour market needs.

"Dual studies may also help create new jobs according to the needs of the industrial sector, and thus contribute to combating youth unemployment," Galla added.

He said that the establishment of DSPs in Germany was a response to the needs of the labour market, and that these programmes were, and still are, aimed at addressing the shortage of employees with both practical and theoretical skills.

*Dual education is regarded as the main reason for the low rate of youth unemployment in Germany." the adviser noted.

DSPs comprise theoretical learning at the university and practical training at sponsoring companies, at a suggested

1/2

monthly salary of JD250, paid by the firm.

If students refuse a job offer from the company that trained them, he said, they must return the payment they received during the training period.

In the first three to five years after graduation, 73 per cent of dual education graduates in Germany continue working for the companies they trained with, Galla highlighted.

"A typical structure of dual studies can be divided into 40 per cent academic study at the university, 40 per cent to acquire work experience in a company and 20 per cent for acquiring other skills, such as learning a foreign language," he explained.

Dual education students at GJU may also spend a semester working in a company in Germany, Galla added,

Companies can benefit from DSPs by having "highly motivated and qualified students" who enjoy practical experience and at the same time are capable of applying theoretical knowledge for management and problem solving, the adviser said.

"Partner companies may also have access to academic resources at the university and cooperate in research projects... [by] benefiting from the university's research facilities," Galla noted.

Challenges in applying DSPs include signing contracts between the GJU and companies, and between companies and students, as well as providing students with good training and salaries from companies throughout the programme, which may extend to five years, he indicated.

At the beginning of the workshop, GJU President Natheer Abu Obeid said universities must add to their roles in education, research and knowledge to contribute to supporting economic development.

"Transferring dual education from Germany to Jordan is a big challenge and cannot be applied in the Kingdom without amending it in a way that conforms to the Jordanian society," Abu Obeid highlighted.

The president also said the university cannot take the first step in implementing dual education except by establishing partnerships with the industrial sector, so as to achieve "an industrial revolution in Jordan and the entire region".

Doril Schumann, GJU vice president for international affairs, reviewed a case study from Germany, and cited statistics from 2014 showing that some 100,000 students were enrolled in dual study programmes.

The majority of those students work in small- and medium-sized enterprises, Schumann noted.

Company representatives expressed their opinions on DSPs, expressing hope that such programmes would alleviate some of the difficulties companies face with fresh graduates, for example their lack of experience.

9.3.d Press Release of the Public Relations & Marketing Department) German Jordanian University), published 01 September 2016:

INDUSTRY UNIVERSITY WORKSHOP ON DUAL STUDY PROGRAMS AT GJU

Amman-September 1, 2016

The Office for Industrial Links at German Jordanian University (GJU) organized an Industry University workshop in order to search more possibilities of setting up dual study programs at GJU through the support of a number of Jordanian firms and companies.

The workshop that gathered together representatives from a wide range of companies and academics from GJUs different schools; discussed the possible fields to establish a number of dual study programs at GJU.

Professor Natheer Abu Obeid, the GJU President, pointed out to the important role of universities and the whole academic sector in supporting the economic and social development as well as its various contributions to the knowledge society.

He also highlighted the applied educational system that GJU is pursuing along the lines of the German universities, and that GJU is not only bridging cultures between Germany and the Arab World but it also bridging between Industry and Education, saying that the GJU Program Innovation and Entrepreneurship (GJU PIE) which is creating industry-university links (locally and globally) is a good example of that.

For his part Eng. Omar Maani emphasized that the of establishing dual study programs has surely a global interest that enables the students to gain a professional work experience during their studies.

Mr. Randolph Galla, Dual Studies Advisor at GJU gave a detailed presentation about the general idea behind "Dual Studies", the benefits of establishing dual study programs, as well as discussing steps towards implementation.

It is worthy to mention that these dual study programs will be the first of their kind in Jordan and are intended to even better fulfill the demand of industries for practically trained graduates who conducted a large part of their studies in the companies.

9.3.e Jordan Television, interview with GJU President Prof. Natheer Abu Obeid, published on facebook 03 September 2016, please see:

https://www.facebook.com/nabuobeid/posts/10153856487652043

9.4. List of Participants

Participants in the Dual Studies Workshop of 01. September 2016

Companies (31 companies, 44 representatives)

| | Company (A – Z) | First Name | Second Name |
|----|--|------------------|---------------------|
| 1. | ACES | Izz Edeen | Katkhuda |
| 2. | Agon Academy | Yara | Almouti |
| 3. | Akhtaboot | Hanan Osama | Hantash Haddad |
| 4. | Amin Kawar and Sons (Part of Kawar Energy) | Nadia | Shahin |
| 5. | Amman Chamber of Industry (ACI) | Eng. Razan | Alkhaza'leh |
| 6. | Aramex | Shaden | Nshewat |
| 7. | Backaldrin | Amjad | Shihab |
| 8. | BDO | Ibtissam Rami | Al Ayoubi Samman |
| 9. | Better Business | Amani | Al Odat |

| 10. | Coca Cola Icecek | Nizar | Khader |
|-----|---|-------------------------|------------------------|
| 11. | DHL Express | Tariq | Bassouni |
| 12. | Faris&Faris | Faris | Abdulrahman |
| 13. | Freudenberg Vileda Jordan Ltd | Saja | Saleh |
| 14. | Grant Thornton | Ibrahim Ihab | Hamoudeh al Omari |
| 15. | Izzat Marji Group | Mohammad Mohammad | Taha Zawaideh |
| 16. | Jabal Amman Publishers | Sinan Issa | Sweis Kleif |
| 17. | Joramco (Jordan Aircraft Maintenance Limited) | Ossama Faten | Fatalleh Abdelhamid |
| 18. | Jordan Steel Plc | Imad | Badran |
| 19. | Jwico | Asma | Helweh |
| 20. | Kawar Energy | Eng. Hanna Eng. Raed | Zaghloul Azab |
| 21. | King Abdullah Design and Development Bureau (KADDB) | Dr. Yahya | Maqableh |

| 22. | Maani Ventures & Maani | Omar | Maani |
|------|------------------------------|----------|--------------|
| | Furniture (Maani Group) | Raed | Abu Laban |
| | | Omar | Tarawneh |
| | | Elias | Kawar |
| | | Samir | Basem |
| 23. | Maisam Architects & | Hazem | Nimri |
| 25. | Engineers | Nazem | Rabadi |
| | Ligiticers | Nuzem | Nabadi |
| | | | |
| 24. | Najjar Steel | Hani | Shatnawi |
| 2-7. | Hujjui Steel | Tium | Shathawi |
| | | | |
| 25. | Nuqul Group | Nicola | Billeh |
| | qu. G.Gup | 1110010 | Sincin |
| | | | |
| 26. | Petra Drug Store | Badia' | Yaish |
| 20. | Tetta Brag Store | Baara | Tuisii |
| | | | |
| 27. | Petra Engineering Industries | Omar | Abu Wishah |
| | Co | | |
| | | | |
| 28. | Steel buildings co. | Vatche | Karmanderian |
| | | Sevan | Karmanderian |
| | | | |
| 29. | Symbiosis | Khalid | Nahhas |
| | | | |
| | | | |
| 30. | Tahboob woodworks | Eng. Ali | Tahboob |
| | | | |
| | | | |
| 31. | Today | Lina | Hundaileh |
| | | | |
| | | | |

Press & Media

| Organization | Name and Function | |
|---|--|--|
| Jordan Television | | |
| The Jordan Times | Merza Noghai, Translator, Reporter | |
| Al Haqiqa ad-Dawaliya, ("International Reality") | Khaldoun al-Azaideh, Director Madaba Office | |

GJU staff members

| | Affiliation | First Name | Family Name |
|-----|-----------------------------|------------|-------------|
| | Executive | | |
| | Management and | | |
| | Administration | | |
| 1. | President | Natheer | Abu Obeid |
| 2. | Vice President | Dorit | Schumann |
| 3. | Vice President | Manar | Fayyad |
| 4. | Assistant to the President | Laila | Yaghi |
| 5. | Office for Industrial Links | Britta | Kaehler |
| 6. | Office for Industrial Links | Randolph | Galla |
| 7. | International Office | Dorothea | Jecht |
| 8. | Office for Industrial Links | Stefanie | Luniak |
| 9. | Office for Industrial Links | Lama | Seryanie |
| 10. | Office for Industrial Links | Linda | Berger |
| | Industrial Relations | | |
| | Committee (ICR) | | |
| 11. | Training and Consultation | | |
| | Center | Yasser | Rajjal |
| 12. | SNREM | Zakariya | Dalalah |
| 13. | SNREM | Ammar | Al-Khalidi |
| 14. | SATS | Anas | Atieh |
| 15. | SMLS | Aziz | Madi |
| 16. | SABE | Rejan | Ashour |
| 17. | Assistant to the President | Abdallah | Abdallah |
| 18. | Industrial Consultant | Wael | Masarweh |

| 19. | SAHL | Oliver | Ritter |
|-----|---------------------|----------|-----------|
| | Deans | | |
| 20. | Scientific Research | Salem | Al-Agtash |
| 21. | Sudent Affairs | Omar | Shubailat |
| | Schools | | |
| 22. | SMLS | Ahmed | Alabadleh |
| 23. | SATS | Safwan | Altarazi |
| 24. | SMLS | Ghazi | Samawi |
| 25. | SATS | Nathir | Rawashdeh |
| 26. | SNREM | Mohammad | Al-Smadi |

9.5. Impressions of the Workshop – Photo Gallery











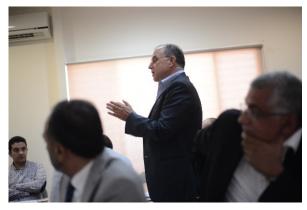


















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