Education Guide
Partnerships and Perspectives of Arab-German Cooperation

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Continuing and Executive Education
Finding a Format to Fit

RWTH Aachen University

RWTH’s International Academy specializes in continuing and executive education, tailored to people at differing stages of their careers.

Many international students and scientists benefit from RWTH Aachen University’s high-quality study programs and excellent facilities; currently 5,000 of the 37,000 students are foreign students. Located in the tri-border region of Germany, Belgium and the Netherlands, the historic city of Aachen is the ideal European study location and is easily accessible from Amsterdam, Brussels, Cologne, or Paris.

RWTH Aachen University is recognized by the German Federal Government as one of 11 Universities of Excellence. It attracts the best minds globally and places strong emphasis on internationalization, with the Arab region identified as a key partner. Success is due to providing academic training to the highest scientific standards while creating formats that meet the needs of a varied clientele, ranging from postgraduates to career professionals from across the globe, notably from across the Middle East and the North African (MENA) region. Furthermore, emphasis is placed on meeting the cultural and social needs of the participants as well as providing visa and travel assistance.

“I remember the warm hospitality I received when the accommodation capacity failed to welcome all the enrolled students. Foreign students were given priority over nationals …”
Dr. Yaser Stas, M. Sc. LiD, Almadina Almunawara, Saudi Arabia

Lasers in dentistry

Since 2004, a part-time, English language, M.Sc. Lasers in Dentistry course has been offered to dentists. The dentists who attend this course run their own successful practices in their home countries. With a business to run and patients and employees to care for, attending a full time master course is not an option. Therefore, the course was designed to limit attendance to eight one-week modules, supported by e-learning, home study and case studies from their home practices. Such blended learning concepts are growing in popularity due to technology advancements and their relevance to participants’ busy schedules.

Germany is the leader in dental laser technology, and Aachen is at the forefront of scientific research. Lasers enable new pain-reduced treatments and operating methods to be employed, as well as complementing and supporting existing therapeutic methods. Through science-based training, innovative laser treatments can be correctly and successfully applied.

Given that dentists in the MENA region are keen to apply this state-of-the-art technology, it is no surprise that 20% (2012) of the students come from Arab countries.

The skills learnt in Aachen have helped the graduates grow the commercial success of their practices.

“Aesthetic dentistry, in particular, has developed noticeably in my clinic since completing the M.Sc. course. […] I started using lasers in the de-pigmentation and the results are just amazing. The majority of my patients appreciate the no pain treatment and experience and the short healing period. […] My laser work has recruited more patients, and thus, I have a flourishing business.”
Dr. Yaser Stas, M. Sc. LiD, Almadina Almunawara, Saudi Arabia

After a successful completion, many of the alumni return to their home countries to practice, yet maintain links with the university to stay abreast of the latest scientific developments. For example, Dr. Asma Ahmed was the first laser specialist in her home country and has become a reference person for colleagues in her region for many previously untreatable conditions due to her expertise in laser dentistry. Furthermore, Dr. Ahmed is a co-worker of the Aachen Dental Laser Center and actively encourages other dentists from the MENA region to attend this program.

“The faculty and teachers of this course were very professional and knowledgeable. The access to the laser devices and labs for research work was very well planned and organized. In addition, the RWTH Aachen is a very prestigious university to be associated with.”
Dr. Asma Ahmed, BDS, M. Sc. LiD, Riaz Medical Centre, Academic City, Dubai
M. Sc. in mechanical engineering

Although part-time courses with a mix of attendance and home study are an ideal option for busy professionals, alternative formats are needed for young graduates looking to gain the experience of studying abroad.

For example, three full-time English language master programs designed to meet the needs of international postgraduate students wishing to continue their studies after obtaining their initial engineering degree and first work experience are provided. Courses offering first-class education, complemented by a social program aimed at integrating international students into student life in Aachen, have been developed.

The M. Sc. program Computer Aided Conception and Production in Mechanical Engineering (CAME) focuses on the conception and production of machines; the production systems engineering M. Sc. provides in-depth understanding of production technology, production systems, and production-related processes; and the M. Sc. in management and engineering in production systems is a joint program with the Dutch Maastricht School of Management. This program complements the first year of the M. Sc. production systems engineering syllabus with a management program detailing core management processes and providing an understanding of the major social and environmental issues effecting business processes in emerging economies.

Successful participants are awarded a master’s degree, which qualifies graduates for PhD studies or leading positions in international companies. The success of the graduates is testament to the success of the courses. Lebanese graduate, Mohammad A. Shehadeh (M. Sc. CAME) has gone on to study for a PhD in engineering at the university. He chose RWTH Aachen due to its international reputation in engineering and the university’s status as a University of Excellence. Furthermore, he selected the CAME M. Sc. program as it is designed specifically for students from non-industrial countries in order to enable them to transfer their knowledge back to their home countries.

“Amazingly this program gave me the possibility to apply for any job I thought about, and I had many chances; but my dream was always to pursue a doctor’s degree, and that is what I am doing. […] The RWTH Aachen International Academy was there from the beginning to assist me through the process of arriving and living comfortably as much as they could. And personally, I say they have done a wonderful job.”

Mohammad A. Shehadeh, M. Sc. CAME, PhD Student at the IAM, RWTH Aachen
“Doing my Master in mechanical engineering at one of the best universities in the world was always my dream. Today, the RWTH Aachen University offers me the possibility to live this experience. An experience that provides me not only with the opportunity of doing high quality engineering studies in a multicultural environment, but also opens the doors of the greatest companies of the world to build my own career.”

Najd R erhaye, M. Sc. PSE, International Institute for Higher Education in Morocco

Summer schools

To get a taste of studying in Germany, short summer school courses offer a perfect mix of technical study and culture.

The courses are based on three pillars:
1. Excellent science and research: interdisciplinary teaching enhanced by practical experience and company visits.
2. German language and culture: Most summer school programs include an intensive German language course.
AQWA Academy – sustainable qualification in the water sector

The RWTH International Academy recognizes that there is also a demand for knowledge from industry, but classic, formal study programs and degree courses are not suited to all situations, and alternative formats need to be identified. For example, the International Academy is cooperating with other academic institutions and industrial enterprises (SME) in the AQWA Academy to launch a new educational format to deliver German engineering knowledge to the water sector in the MENA region.

With financial support from the German Federal Ministry of Education and Research, AQWA Academy aims to meet the educational needs of water sector employees with varying qualifications, at different stages throughout their careers, whilst enabling them to continue their day-to-day jobs.

The MENA countries have the most serious water scarcity. Exacerbating the problem of secure water supply are crumbling or non-existent waste disposal systems, water pollution, and sometimes land use conflicts. Population growth and increasing urbanization add to the critical situation. Investment in infrastructure, water supply, and sanitation technologies are essential, but an improved education framework for water sector professionals is also urgently required. Integrated solutions that combine technology with management know-how regarding administrative, ecological and commercial factors are in demand.

This is where AQWA Academy comes into play: Private companies cooperate with higher education institutions to develop practical, high quality, certified training programs for the water sector in the MENA region. The AQWA Academy content encompasses the essential issues of design, construction, management, maintenance and rehabilitation of underground infrastructure, water supply and waste water facilities.

A key goal is to transfer theory into practical action. AQWA Academy’s answer is a blended learning concept, combining traditional classroom attendance with e-lectures and practical...
training, adaptable to different degrees of difficulty and the local setting. The crucial factor is close cooperation with partners in the MENA region to design appropriate content and didactical methods to meet the regional demand.

AQWA Academy uses a modular framework comprising basic modules and optional learning units so that formats can be created quickly while maintaining the university’s high and widely recognized quality standards.

Close communication and flexibility

A good example of how AQWA Academy works is the cooperation between program partner FiW (Research Institute for Water and Waste Management at RWTH Aachen University) and the Tunisian wastewater authority, ONAS. At the outset intensive dialog about the content and formats was held. The agreed program was a visit to Aachen for Tunisian engineers to experience hands-on training on a semi-industrial pilot plant, testing the theoretical knowledge they had acquired in lectures held in advance. These theoretical modules had been provided via the AQWA Academy e-learning platform and in classroom lectures. Finally, the participants discussed practical details with experts during field visits. AQWA Academy is adaptable to the participant’s qualification level which is ascertained in advance. For example, technicians receive longer practical training than the engineers from mid-level management.

Upholding quality while adapting to participants needs – a formula for success

The courses are all run to the highest academic standards, adhering to the ethos of RWTH Aachen University. Appropriate accreditation and continual improvement based on established evaluation processes underpins the success and provides quality assurance. However, flexibility to meet the needs of participants at various stages in their careers while considering global and industrial logistics of transferring knowledge ensures success.

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