



Dual Master's Degree between Qatar University and Université Bretagne Sud

The dual master's degree will foster the collaboration between researchers from both institutions, Qatar University and Université Bretagne Sud, in the cybersecurity area. Also, it will be beneficial to QU to cement links with the industry.

Dual master's degree

Students will be awarded Dual degrees: Qatar University's Master of Science in "Computing" and UBS's Master in "Cybersecurity of Embedded Systems".

The overall rationale is that:

- QU students are taught at QU.
- QU students can do their research internship in Qatar or France, at QU or UBS, or in an approved company developing cybersecurity activities.
- Students will receive **two degrees in no less than two years**: one from QU and one from UBS. All degrees offered by QU and UBS are state degrees and are internationally recognized and well-reputed. Qatar is witnessing phenomenal growth and governmental support in R&D and technology and engineering innovation in the road towards transforming into a Knowledge-Based Economy by 2030. UBS and QU, represented mainly by the College of Engineering, will collaborate and contribute with its acknowledged expertise in cybersecurity to offer a **unique graduate program** that can achieve high visibility in the Middle East, attract new students to QU and establish it as a regional center of excellence in cybersecurity.
- UBS visiting professors will benefit students and researchers. They will be able to participate in or develop research projects with QU staff. They will contribute to capacity building and networking.
- By signing the MoA, UBS commits itself to not offering the same degree to any institution in Qatar and the Gulf countries. The MoA is an **exclusive contract**.

The following are the main points for the MoA:

1. Group sizes

The minimum number of students per group is: 8 students.

The maximum number of students per group is: 15 students.

2. Form of delivery of modules by UBS visiting professors: face to face, online, videoconferencing, etc.

UBS's faculty members can have the opportunity to deliver graduate courses or parts of courses (at least 2-3 modules as face-to-face delivery) in collaboration with QU faculty. The teaching responsibility could be based on a mutual arrangement suitable for both institutions and the needs of the graduate program.

3. Minimum and maximum duration of stay in Qatar

UBS visiting professor(s) shall stay 2-3 weeks during the semester. The visiting professor from UBS will support the delivery of two courses (each course as 6 hrs. a week as a special arrangement) as face-to-face interaction. The remaining period of the course can be delivered online and/or jointly with another graduate faculty from QU. In the future, it is possible to consider offering these courses in winter, fall, or spring semester. The same visiting Professor(s) will support delivering training to industry related to Cybersecurity.

4. Logistics: travel and accommodation of UBS visiting professors

QU shall bear the travel expenses of UBS visiting professors' from and back to France, and provide suitable accommodation in Doha in accordance with QU Human Resources rules and guidelines.

Then articles 5-7 will have two options for implementation as per the following table. For implementation of the aforementioned articles, priority should be given to the first option, while the enablement of the second option should be based on a prior written request from college of Engineering, approved by the vice president of academic affairs.

	Option 1	Option 2
5. Financial Matters	<p>UBS's senior faculty members can have the opportunity to deliver graduate courses or parts of courses in collaboration with QU graduate faculty members. The courses can also be taught remotely or hybrid mode (online/physical).</p> <p>The visiting faculty will receive an honorarium for the three weeks face-to-face course delivery (minimum 6 hrs. per course per week). This will be applicable for visiting faculty who will teach 2 graduate courses a semester and supervise</p>	<p>UBS's senior faculty members can have the opportunity to deliver graduate courses or parts of courses in collaboration with QU graduate faculty members. The courses can also be taught remotely or hybrid mode (online/physical).</p> <p>Qatar University shall pay the salary of the visiting faculty for the relevant visiting semester, cover travel expenses as well as provide suitable accommodation. This will be applicable for visiting faculty who will teach 2 graduate</p>

	thesis/senior projects, as well as be involved in professional training in cybersecurity.	courses a semester and supervise thesis/senior projects, as well as be involved in professional training in cybersecurity.
6. Tuition fees	<p>The tuition fees paid to UBS shall correspond to the number of credit hours per student taught and supervised by UBS visiting professors. Students enrolled in this dual degree program will pay the tuition fees for the UBS credit taught by UBS faculty directly to UBS.</p> <p>At QU, tuition fees for students enrolled in all Master Programs are according to QU regulations for college of engineering graduate programs. Student needs to pay full fees for the program at QU.</p>	At QU, tuition fees for students enrolled in all Master Programs are according to QU regulations for college of engineering graduate programs. Student needs to pay full fees for the program at QU.
7. Payment of teaching and supervision hours	UBS visiting professors lump sum honorarium to compensate for teaching two courses; supervision; and industrial training shall be calculated according to QU rules and guidelines. The honorarium will depend on the number of actual teaching days (efforts).	UBS visiting professors salary to compensate for teaching minimum two courses; supervision; and industrial training according shall be calculated according to QU rules and guidelines..
As a summary, UBS will receive the following	<ul style="list-style-type: none"> • Fees of 15 CH will be paid to UBS. • Honorarium • Travel & Accommodation for faculty (3 weeks) • Training to the industry will be equally shared between the two universities 	<ul style="list-style-type: none"> • Salary of the faculty member for three months (one semester). • Travel & Accommodation for faculty (one semester) • Training to the industry will be equally shared between the two universities

8. Start of the program,

We recommend starting the program in Fall 2022, depending on the marketing and number of students attracted to the program. A minimum of 8 students will be required each academic year to run this dual degree program.

9. Organization for the recruitment and the assessment of students,

A joint committee at the level of the two institutions will be established to prepare program courses and follow the academic and research progress of the students enrolled in the program. From QU, the CSE Coordinator for Graduate Programs will be our focal point.

10. Proposed Study Plan:

- Recognizing core courses at QU and UBS as equivalent in terms of acquired skills;
- Students need to get accepted at the Host institution. However, tuition fees and other applicable fees are paid to the respective institution where the students pursue their studies that year.

Students who would like to obtain a double degree should:

- Take the pre-approved core courses at QU,
- Pre-approved technical electives (specialized courses) at QU or its equivalent at UBS carry out a 6 credit for thesis-based master, or carry out a minimum of 3 credits for “project option” or pre-approved a minimum 3 Months “industrial placement” in Qatar, France, or in the rest of the world, in year 2 of the master’s degree (for project-based master in QU).
- Each Institution will select those of its master students enrolled in the first year to be given the possibility of acquiring the double master's degree in compliance with the terms of this Agreement.
- The Institutions will agree on the master research topic (or project for project option), the supervision, and the support of the research activity.
- Each Institution will nominate a supervisor for each selected candidate. Supervisors commit themselves to fully exert their supervising role over the student. Each exchange master student will follow the expected schedule of research activities at both institutions, the Supervisors.
- Exchange students are expected to spend in the Host Institution a maximum of 1 academic year during their period of master study. During this period, they will have the rights of regular master students of the Host Institution.
- The student activity will be subjected to periodic evaluation according to the rules of the Institutions. Specific evaluation actions might be organized separately or jointly by the Institutions for the double degree course of studies.
- The thesis will be written in English. The submission and any reproduction of the thesis shall be subjected to the regulation in force in both institutions.
- The thesis defense will be considered complete with a single oral defense, which will take place at the Parent Institution and will be recognized by both establishments. The oral presentation will be in English. Both supervisors will participate in the oral examination.
- Two members with high qualifications in the field of the thesis will provide a written evaluation of the thesis prior to the final oral examination. The examination committee will be nominated according to the Institution where the defense takes place.
- The student will complete the number of credit hours entitling both parties to award the double degree. Each institution is responsible for its own degree, according to the regulations adopted by each of the participating parties.

Study plan (credits)

		QU credits (31CHs)	UBS credits (120)
Core courses delivered by QU	GENG 602 Applied Research Methodology CMPT 671 Algorithm Design and Modeling CMPT 610 Embedded Computing Systems CMPT 612 Network Security CMPT 609 Seminar in Computing	3 3 3 3 1	10 10 10 10 10
Specialized courses delivered by UBS	UE 1 Comp. Sciences – Defensive programming + project UE 2 Embedded & Secure Operating Systems + project UE 3 Security – Adv. security for OS (pre-requisite UE 2) UE 4 Security – Applied Cryptography	3 3 3 3	10 10 10 10
Jointly supervised research project or industrial placement		6	30

Study plan (organization)

	QU academic staff			
	UBS academic staff or professionals			
Semester 1 (year 1)	GENG 602 (S1) Applied Research Methodology (3 CH)	CMPT 610 (S1) Embedded Computing Systems (3 CH)	CMPT 609 (S1) Seminar in Computing (1CH)	UE 4 (S1) Security – Applied Cryptography (3 CH)
Semester 2 (year 1)	CMPT 671 (S2) Algorithm Design and Modeling (3 CH)	CMPT 612 (S2) Network Security (3 CH)	UE 2 (S2) Embedded & Secure Operating Systems + project (3 CH)	
Semester 3 (year 2)	UE 3 (S3) Security – Adv. security for OS (3 CH) (pre- requisite UE 2)	UE 1 (S3) Comp. Sciences – Defensive programming + project (3 CH)	CMPT 699 (S3) Master Thesis (3 CH) (joint)	
Semester 4 (year 2)	CMPT 699 (S4) Master Thesis (3 CH) (joint)			

In witness hereof, the duly authorized representative of each party Signs to agrees the provisions of this document :

First Party:

Name: Dr. Hasan Rashid Alderham

Title: President

Date:

Second Party:

Name: Ms. Virginie DUPONT

Title: President

Date: