

Welcome to QTOM: the QTedu Open Master

Updated
05/08/2022

THEME A:

COURSE EXCHANGE

-Lectures, seminars, and formal courses that can be taken for credit

THEME B:

JOINT QT EVENTS

-Workshops, lectures, seminars, on diverse topics introducing students to the world of QT



QTOM

THEME C:

PROJECTS AND INTERNSHIPS

-Allowing students to carry out remote projects on a wide variety of topics, and receive local ECTS credits

THEME D:

CO-DEVELOPED RESOURCES:

Long-term resources available to the QT community, co-developed by QTOM partners

In this PDF, you will find guidance on how to submit content and participate in the pilot. With any queries, contact Simon:

simon.gorney@phys.au.dk / qtom.pilot@qtedu.eu

How to participate in the pilot – local representatives

- Each participating institution should have a local representative, whose role is to:
 - a) **Facilitate accreditation** of students with ECTS for work conducted through QTOM.
 - b) **Act as a central contact** for students from their institution to get involved in pilot activities.

Local University Rep database							
Institution	Department	Name	Email	Course Title	ECTS	Start & End Dates	Evaluation Requirements
Aarhus University	Department of Physics and Astronomy	Jacob Sherson	sherson@mgmt.au.dk		5/10	Projects may be undertaken at any time. The student needs to have the "independent research study" approved in their study plan and have an assigned supervisor.	No grade. usually written report.
University of Barcelona	Physics	Robert Sewell	robert.sewell@icfo.eu	Internship	6	projects may be undertaken any time between 11 October - 31 July; timing is flexible, and should be agreed with course coordinators at the start of the project; work should not interfere with student's other course work	a) 1-page plan of project approved with coordinators the start of the project b) 2-page report by student at the end of the projects c) brief assessment of performance by supervisor
University of Barcelona	Physics	Robert Sewell	robert.sewell@icfo.eu	Master's thesis	24	14 February - mid July	Written masters thesis + oral presentation & defence
Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering	Physics	Aurél Gábris	gabris.aurel@jfifi.cvut.cz	ECTS-accredited lecture courses	varying	14 February – 13 May 2022	

You must name a local representative in the [google sheet](#) in order for students to engage in accredited activities of QTOM – reps can be any faculty member able to support the ECTS-awarding process locally.

Accreditation is different at every institution – so it is important to check with your department what is available. We now have significant experience with many different mechanisms, so you can also contact us for advice.

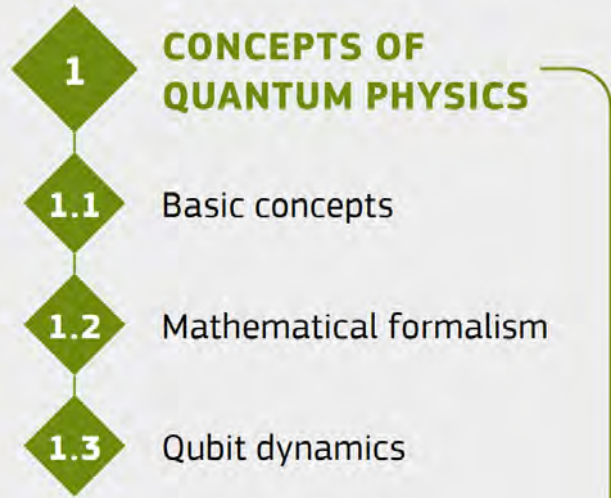
Theme A: Shared Courses



1. In the [Signup Sheet](#), add your content topic(s) and identify roughly the amount and type of content available.

2. Link to the [competence framework](#): areas covered and competency (A1-C2)

Theoretical Background



For any queries or to submit additional information, contact Simon through qtom.pilot@qtedu.eu



Semiconductor Physics, Transport, and Spintronics

University of the Basque Country — 2 ECTS — Spring Semester — 12 weeks — 12 lectures 3x45min — — Provider: Evgeny Sherman

Quantum Programming

CTU Prague — 2-4 ECTS — Spring Semester — 13 weeks — 13 lectures 2x50min — Provider: Aurél Gábris

[Full details](#)

Quantum Physics For Computer Scientists

Sorbonne University — 9 ECTS — September to December 2021 — 10 weeks — Lectures: 4h30 mins — Exercises: 4h30 min — Provider: Alex Grilo

Examples of previously run courses

Theme B: QT Events

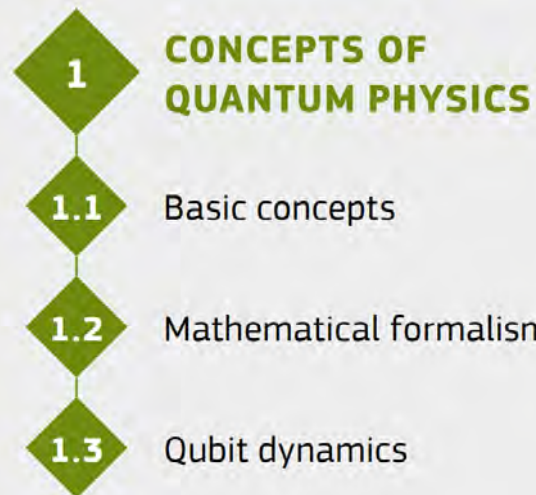
1. In the [Signup Sheet](#), add your content topic(s) and identify roughly the amount and type of content available.

2. Identify their subthemes:

- a) Seminars/Lectures/Workshops (The majority of submissions will fit B.a)
- b) Symposia
- c) Soft skills training

The labels are for scheduling and organisation only, students will not see them.

3. Link to the [competence framework](#): areas covered and competency (A1-C2)



For any queries or to submit additional information, contact Simon through qtom.pilot@qtedu.eu



Theme C: Remote QT Projects

For each project, complete a [one-slide description](#) with more detail, and add them into the [slide deck](#). After curation by the QTOM organisers, this will be displayed on the website.

TITLE GOES HERE

SUPERVISOR NAME

DEPARTMENT, INSTITUTION, COUNTRY

CONTACT EMAIL

PROJECT DESCRIPTION HERE: Can be specific or a general description of research direction. Include as much or little detail as you want.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has

EXPECTED FINAL PRODUCT

NECESSARY COMPETENCES OF STUDENT (e.g Understanding of the basics of QM,

Your university/Department/Research group
Logo(s) here

Image(s) of your project here

This project is suitable for:

- A Bachelor's-level internship
- A Master's-level internship
- A Bachelor's thesis

Using the Competence Framework: A rough guide

Result of attendance at a talk or guest lecture on a topic.

Result of some **interaction** with the topic, e.g a single lecture + exercise material.

Result of ability to relate the topic to others in QT, e.g a passing grade in an ECTS credited lecture course.



Result of significant time investment in the topic. Able to understand scientific articles on the topic. E.g A master's thesis in it.

Result of leading others in a topic, e.g a doctoral student capable of supervising a bachelors project.

You are e.g a professor and came up with your own research ideas which innovate in the topic area. (Awesome!!)