QUANTUM TECHNOLOGY (MINOR)

Program Description

Quantum technology is an emerging field that has the potential to revolutionize many areas of science and technology, from computing to sensing to communication. By offering a minor in this area, undergraduates are provided with a unique opportunity to gain knowledge and skills in a cutting-edge and rapidly developing field, which is attractive to students looking to differentiate themselves in the job market.

Furthermore, quantum technology requires a multidisciplinary approach that involves concepts from physics, mathematics, computer science, and engineering. Offering a minor in this area can help students develop a broader understanding of these subjects and how they can be applied to real-world problems. It can also encourage collaboration between students and faculty from different departments, leading to a more diverse and innovative learning environment.

Internships

There are opportunities for students to intern in companies and laboratories in the area. Students can apply for placement in one such position upon completion of the minor.

Applying for the Minor

Apply for a minor in Albert using the link in the My Academics section of the Student Center.

Students should apply for the minor before applying for graduation. After applying for the minor, the application is then forwarded to the Home School Advising Office, Host School Advising Office, Host School Department/Program, and the Academic Dean's office.

The departmental advisers governing the minor will have access to approve or disapprove the minor online using the Graduation Tracking Search page. If a student is registered for a course for the minor during their last semester, the adviser can still set the status to departmental approved pending current courses.

Program Requirements

The minor requires the completion of 16-18 credits, comprised of the following:

Course	Title	Credits
Required Courses		
PH-UY 2002	Introduction to Quantum Science	2
PH-UY 2012	Introduction to Quantum Programming	2
PH-UY 3613	Mathematical Foundations for Quantum Computing	3
PH-UY 4553	Introduction to the Physics of Quantum Computing	3
Electives [1]		
Select two of the following:		6-8
CM-UY 3714	Physical Chemistry I	
CS-UY 3943	Special Topics in Computer Science	
CS-UY 4783	Applied Cryptography	
CS-UY 4563	Introduction to Machine Learning	
ECE-UY 3054	Signals and Systems	
PH-UY 3474	Introduction to Modern Optics and Photonics	
PH-UY 3614	Computational Physics	
PH-GY 5493	Physics of Nanoelectronics	
PH-GY 5553	Physics of Quantum Computing	
PH-GY 6673	Quantum Mechanics I	
Total Credits		**16-18**

[1] Additional electives permitted by permission of the department.

Policies
NYU Policies

University-wide policies can be found on the New York University Policy pages (https://bulletins.nyu.edu/nyu/policies/).

Tandon Policies

Additional academic policies can be found on the Tandon academic policy page (https://bulletins.nyu.edu/undergraduate/engineering/academic-policies/).